Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*

PhD Dissertation

By

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PhD Researcher (Session: 2013-2014)

Registration Number 104

Department of Mass Communication and Journalism

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Submitted to the University of Dhaka in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Mass Communication and Journalism

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Dedicated to
The Farmers of Bangladesh

Whose ceaseless struggle makes us survive

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Declaration

I do hereby declare that the thesis entitled '**Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush***' is completely a work of my own endeavor under the supervision and guidance of Dr. Md. Golam Rahman, Professor, Department of Mass Communication and Journalism, University of Dhaka. The guideline of the University has been followed to prepare and submit the dissertation. This is an original thesis based on my doctoral study which has not been submitted in any form to any other university for any degree.

19.04.2018

Sheikh Mohammad Shafiul Islam
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Certificate

I am pleased to certify that the dissertation entitled **'Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*'** is completely an original work of Sheikh Mohammad Shafiul Islam, PhD Fellow (Session: 2013-2014), Department of Mass Communication and Journalism, University of Dhaka with my direct supervision and guidance. Information and facts presented in this thesis are original and were not submitted before for any other degree. I also certify that I have gone through the thesis and found the same satisfactory for submission to the Department of Mass Communication and Journalism, University of Dhaka in partial fulfillment of the requirements for the degree of Doctor of Philosophy (PhD).

19.04.2018

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The Author

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Abstract

Television is an effective medium of disseminating agricultural information to the farmers because of its audio-visual nature. It is true for the farmers of Bangladesh. One of the pioneers of agricultural journalism in the country is Shykh Seraj who initiated *Mati O Manush (MOM)* programme along with other presenters on the state-run Bangladesh Television (BTV) in 1980s. Later, he introduced *Hridoye Mati O Manush (HMOM)* on *Channel i,* one of the leading private television channels in the country. Earlier to introduction of *MOM,* there was hardly any attempt taken by TV media to feed information to the field of agriculture where about 70 percent population were some-how engaged and about 23 percent of GDP emanated from that sector after the Liberation War of Bangladesh. The present study was conducted to understand the perception of the farmers on the impact of *HMOM* programme in sustainable agricultural development of Bangladesh. A few methods i.e. questionnaire survey on the *HMOM* audiences, Focus Group Discussion (FGD) and Key Informant Interviews (KII) and content analysis on the programme were adopted for gathering both the quantitative and qualitative data.

The study revealed that *HMOM* facilitated 97 percent farmers to have access to agricultural information. More than three-fourths of the farmers adopted agricultural information availed from the programme and almost all the adopters (93.7 percent) got benefits using the information. Exposure to the programme had some visible impacts on the agricultural practices of 69.6 percent farmers. Socio-demographic features of the farmers played role in the process of access to and adoption of agricultural information, getting benefits and impacts. The female farmers, illiterate and less educated ones, and financially insolvent farmers lagged behind in these processes. The farmers felt empowered when their voices were presented in the 'Farmer's Budget' series of *HMOM* where they interacted face-to-face with the policy makers. Such dialogue created an atmosphere of accountability of the government as well as bottom-up approach and participatory annual budgeting process on agriculture. The programme is also an eye-opener for the sectors like education, industry, health and so on where the authorities can ensure accountability of the government through participation of the masses.

The *HMOM* programme, in reality, has become personalized. The audiences were largely attracted to the presentation style, personality and credibility of Shykh Seraj. Without him, most of the respondents could not think of a successful agricultural documentary. Thus, sustainability of the programme was challenged since alternative presenters were yet to develop. Flow of agricultural information is still scanty in Bangladesh. The National Agricultural Policy 2013 stressed on collaborative approach with the private TV channels for disseminating agricultural information. But, no significant initiatives were undertaken so far. The long-standing demand for setting up of an agro-based TV channel in the country has yet to be implemented. The government should undertake an integrated approach of disseminating agricultural information with the private television channels where *HMOM* can be considered as a model.

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Chapter One
The Study Settings

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1.1. Introduction

'Agriculture is the single largest employer in the world, providing livelihoods for 40 per cent of today's global population. It is the largest source of income and jobs for poor rural households' (UNDP: 2017). Bangladesh economy largely depends on agricultural activities too. Out of total 2, 86, 95,763 families in the country; 1, 51, 83,183 belong to the farmers' constituting 53 percent (Agricultural Diary: 2017). Agriculture is the single largest sector where 48 percent of the total population (15+ age group) is engaged. The contribution of the agriculture sector (crops, fisheries, livestock and forests) in Gross Domestic Product (GDP) was14.75 per cent in the fiscal year of 2015-2016 (AIS: 2017). Agriculture is a specialized field of socio-economic activities and human skills which is closely related to the issues like food and nutrition of the people, income generating activities and poverty alleviation (Ministry of Finance: 2016).

Agriculture is the lifeline of the Bangladesh people despite gradual decline in its contribution to GDP. Bangladesh is endowed with a climate favourable natural environment for the cultivation of a wide variety of both tropical and temperate crops. Though nearly 100 different kinds of crops are presently grown in Bangladesh, rice is the principal one which grows in all three-crop-growing seasons of the year and covers about 79 percent of the total cropped area. The use of agricultural land has intensified during the last three decades. There is a continuous transformation of agricultural production from its single crop to a multiple cropping systems.

Most Bangladeshis earn their living from agriculture. Although rice, jute and wheat are the primary crops, maize, vegetables and fruits are raising as important food crops. Due to the expansion of irrigation networks, some wheat and rice producers have switched to cultivation

of maize. Due to the country's fertile soil, availability of water and supportive weather, paddy is grown and harvested three times a year in many regions. However, the production of food grains is sometimes interrupted for unfavorable weather. Speedy declination of cultivable lands due to human habitation, industrialization and infrastructure development is considered a challenge to achieve self-sufficiency in food security for the increasing population. Like this, frequent natural calamities, inadequate modern agricultural tools, poor technical knowledge, encroachment of agricultural land, seasonal unemployment, climate change shock, unplanned industrialization and insufficient agro-loan facilities are the visible challenges in the agricultural sector of Bangladesh.

Agriculture sector has direct impact on poverty alleviation, livelihood development, income generation and other aspects of socio-economic development of Bangladesh. Profitable, sustainable and environment friendly agricultural system is indispensable to attain food security for the ever-growing population of the country. Despite gradual shifting to industrial activities, multi-dimensional agricultural activities are still facilitating economic growth of Bangladesh. Like other sectors, agriculture needs effective information flow on improved varieties of seeds, environment friendly fertilizers and pesticides; profitable and new varieties of agro-products and its sub-sectors like poultry raising, livestock rearing, fisheries, fruits cultivation; market information; cost effectiveness of the agro-products; consultation and suggestions with experts and other pertinent information.

Hornik (1988) argues that information flows are undoubtedly crucial in agricultural growth. "Changes in material inputs, complementary farming techniques, storage technology, and research, supply, and marketing institutions are all part of the technological transformation. The effective integration of these factors, it is argued, is tied closely to adequate information flows" (*ibid, p.*). Impact of agricultural information on the farmers is evident from the

experiences and arguments of the development communication experts. Roy (1994) argues that each medium is planned with a direction to supply or transmit information to cause some effect on receivers. These effects are on social, psychological and physical aspects of the individuals and could cause gainful or harmful effect.

Television (TV) is a powerful electronic mass medium having power to reach the remotest area with necessary information, education, entertainment and persuasion. In the perspective of Bangladesh, TV is an effective medium of communication and very useful to the 36.4 percent people (AIS: 2017) who are deprived of education. As the TV messages are delivered with visual pictures, conversations and music, they are easily communicative and understandable to the people even who can't read or write.

As an effective mass media, TV has indispensable role to approach the farmers with necessary and accurate information on various aspects of agricultural practices. TV is significant for the farmers due to its nature of audio and visual presentation of content which is even understandable to a large segment of people in general.

One of the remarkable scenarios in Bangladesh agriculture is that a declining trend is observed for the total agricultural lands of the country, i.e. a decrease is noted from 91.83% in 1976 to 87.69% and 83.53% over the years of 2000 and 2010 respectively. A total of 561,380 ha agricultural lands were decreased during 1976-2000 and this figure was increased to 565,370 ha during 2000-2010. Yearly average loss of agriculture lands were 23,391 ha and 56,537 ha during 1976-2000 and 2000-2010 respectively (Hasan et.al. 2013, p. 3). On the other hand, total population turned into more than double, from 75 million in 1972 to more than 164 million at present.

Comparing to the rapid increasing of population and speedy declining agricultural land, the production of agriculture particularly the food grains has increased several folds. In this transition, dissemination of agricultural information to the farmers is thought one of the prime

change makers. Especially to the farmers having no formal educational background, audio-visual transmission of useful agricultural information by television channels has a great perceived impact.

In Bangladesh, Shykh Seraj is considered one of the pioneers of TV reporting on agriculture who initiated his popular programme *Mati O Manush* (Land and People) on Bangladesh Television (BTV) shortly after its inception. In the initial stage (in 1980) the title of the programme was *Amar Desh (my country)* which was turned into a mainstream programme of BTV gradually. The impact of *Mati O Manush (MOM)* was noteworthy not only to the farmers but also to the mass audience which was perceived playing a significant role in agricultural development of the country. Challenging the entertainment-based programmes in the BTV specially designed for the urban elites, Seraj developed a completely different stream of television programme targeting the peasants. After launching, the programme became popular not only among the farmers but also among the mass audiences from all walks of life. In a short span of time, it was regarded as one of the mainstream programmes of the television. Gradually, the programme leapfrogs the other contemporary programmes of the television which created universal appeal (Chandrabati Academy: 2012). Due to the programme, agriculture has been recognized as a significant content of the media. Seraj continued the programme in the BTV till 1996 undertaking 588 episodes of the programme.

Later, he left BTV but has been continuously producing the similar programme with a little different title *Hridoye Mati O Manush* (Land and People in Heart) for one of the country's most popular satellite TV channels, the *Channel i* since 2004. The programme, being a revised version of the earlier one, has been covering multidimensional agricultural activities –from rooftop and vase gardening to commercial agriculture, agricultural marketing and value chain both in domestic and international markets, food security, addressing of climate change,

agricultural policy, foreign agriculture, farmer's empowerment, entertainment and agricultural heritage of Bangladesh. Through disseminating information and education on expansion of the agro-technologies and innovation of new crop varieties, the programme has minimized the gap between the farmers and the laboratories of the agricultural researchers and scientists (Bhuiyan et.al. 2016, p.169). Seraj introduced three new programmes: *Hridoye Mati O Manush* (Land and People in Heart) and *Hridoye Mati O Manusher Daak* (The Appeal of Land and People in Heart) on *Channel i* and *Krishi Dibanishi* (Agriculture: Round the Clock) on the state run terrestrial channel, BTV again.

On different occasions Seraj produced several other programmes under the concept of *Hridoye Mati O Manush (HMOM)* which includes: *Krishoker Eid Anando* (Farmers' Eid Delight), *Krishoker Boishakhi Anando* (Farmers' Boishakhi Delight), *Krishoker Bishswa Cup* (Farmers' World Cup), *Krishi Budget, Krishoker* Budget (Agricultural Budget, Farmer's Budget), and *Firey Cholo Matir Taney* (Return to the Roots). These programmes, unique in nature, are generally perceived beneficial to the farmers in addressing their information, education and entertainment needs. These programmes introduced the farmers with diversified agricultural practices, successes in agricultural practices, innovations and use of modern technologies in agriculture.

Following these programmes, some other television channels are producing programmes and news on agriculture. Newspapers in the country are also showing interest to cover agricultural news. The agricultural documentary of Seraj has generated interest among the domestic and foreign policy makers, diplomats, researchers and agricultural experts. Their frequent visit to the *Channel i* and sharing experiences with Seraj and his team are the evidences of their enthusiasm. As recognition, the programme planner, producer and presenter has been rewarded with many national and international prestigious awards and fellowships including *Ashoka*

Fellowship (1992), *Ekushey Padak* (1995), *Young Asia Television Award* (2002), *Bangladesh Economic Association Gold Medal* (2006), *UNESCO Bangladesh Journalism Award* (2009), *FAO A.H. Boerma Award* (2009), *House of Commons Honourary Crest* (2011) and *Gusi Peace Prize* (2015). He also received *Ranada Prasad Saha Gold Medal* (2016), *Bangla Academy Fellowship* (2016), *Who's Who Award* (2016) and many more for his pioneering contribution to increasing public awareness of diversified aspects of agriculture and development through television programme.

About the outcomes of the Seraj's TV documentary 'Land and People' on BTV and 'Land and People in Heart' on *Channel i* , Bhuiyan et.al. (2016) argued that during the 1990s, the agricultural programme contributed to inclusive expansion of crops cultivation, fishery and poultry raising commercially.

Alam et.al. (2012, p. 64) stated that Shykh Seraj focused on different aspects of food security, agricultural innovations, crops marketing system, foreign agriculture, impact of climate change on agriculture and many other issues in his programme. He challenged the traditional concept of a farmer meaning that only the rural people were suitable for agricultural productions. Conversely, his documentary encouraged many young educated people, housewives and university students to participate in agricultural activities.

This programme has created interests among the agricultural extension researchers of Bangladesh too. Scientific officer of BARI (Bangladesh Agricultural Research Institute), Rahman (et.al. 2016) mentioned, "*Channel i* (a private TV channel) is the pioneer with prominent, regular agricultural programmes like *Hridoye Mati O Manush* and agricultural news". Being one of the largest agricultural countries in the South Asian region, Bangladesh needs its farmers to have access to agricultural information on the new varieties, high yield crops, high value crops, environment friendly sustainable agriculture, new innovations on agro-

technologies, use of proper fertilizers and pesticides, techniques of producing and using bio-fertilizers, agricultural markets, farmer's rights etc. TV can be used to inform, educate, entertain and motivate the farmers of the country in the aforesaid agricultural areas to improve their living conditions.

In this context, the study titled 'Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*' has been carried out. The essence of the study grounded on understanding of the perceived impact of the agro-based programme on the agricultural practice of the farmers.

1.2. Rationale of the Study

The *Hridoye Mati O Manush (HMOM)* programme is an agricultural documentary which has been contributing to the diversification and sustainable agricultural development of the country according to the development workers, agricultural experts, farmer's leaders, journalists, writers, academics and researchers. A part of the young and educated people in the country became enthusiastic in agriculture who undertook various agricultural activities as their career after watching the programme. Alam (2014) opines that the contribution of Shykh Seraj's agricultural programme in commercial expansion of high yielding crops, pisciculture and poultry farming will remain forever. However, academic research on the role of media in sustainable agricultural development is inadequate comparing to the needs and growth of this sector in Bangladesh. Professor Golam Rahman (1999), a development communication specialist, felt the need of an impact study of the 'Land and People' programme due to its perceived popularity among the audience of both the urban and rural areas. But, a little has been done to understand the impact of the TV programme on agricultural expansion and development–how the information, education and entertainment needs of the farmers were addressed and how the farmers were influenced by the programme designed, produced and

presented by Seraj. Consequently, Mass-line Media Centre (MMC), a national NGO working on communication, journalism and development fields, undertook a study and held workshop with the media experts, civil society members, agriculture and the development activists to understand the impact of the programme *Mati o Manush* of BTV in 2002. The study flagged academic approach – the methodology did not consider the perspectives of the farmers though the focus of the study was to figure out impact of the programme on agriculture and the farmers. Moreover, there were no comprehensive study conducted on *HMOM* programme to understand its impact on the farmers and the sustainable agricultural development by capturing perception of the farmers.

The present study attempted to bridge that gap by exploring the impact of the TV programmes on Bangladesh agriculture in the perception of the farmers with particular focus on *HMOM.* From the scholastic viewpoint of the role of TV in agricultural development, the study is significant to contribute to the development and integration of empirical knowledge on the mentioned subject.

1.3. Objectives of the Study

The study has been based on the following objectives:

Overall Objective

To understand perception of the farmers on the impact of *'Hridoye Mati O Manush (HMOM)*' programme in their agricultural practices and thus contribute to the development of agriculture sector of Bangladesh.

Specific Objectives

The specific objectives of the study include to:

a. understand the farmer's access to agricultural information from the programme
b. figure out the farmer's adoption level of the agricultural information received from the programme and getting benefits from that
c. comprehend impact of the programme from the perceived changes of the farmers in their agricultural practices

1.4. Definition of Key Terms

Some key terms have been used repeatedly in the study which need to be defined:

Term	Definition
Bio-fertilizers	Fertilizers produced from cow-dung, poultry drops, decomposed plants, trees, leaves etc.
Cash crops	Cash crops, in the study, include all the steps of producing jute, flowers, nursery, fruits, vegetables etc. from preparing seeds, from seed to seedlings, preserving seeds, planting seeds, nurturing etc. to harvesting the crops.
Combined system of agriculture	Using a single piece of farm or farm land for growing dual, triple or multiple crops, for example, paddy-duck cultivation, duck-fish cultivation, etc.
Cooperative farming	It indicates cooperative farming like fish cultivation in group, group irrigation, group marketing of the agro-products etc.
Controlling of pests in natural way	It indicates some innovative ways to manage harmful pests, for example, perching (some timbers or sticks are pierced down on which the birds can sit, rest and catch the insects), using natural traps, firing, using plant dust etc.
Disaster resilient crop	The crops that are resilient to various disasters like flood, salinity, drought etc. For example, BINA Dhan (paddy)-11 is, a flood-tolerant variety.
Farmer	A farmer is a person (both the male and female) who is engaged in farming for livelihood. In the study, the people were considered farmers possessing agriculture (any of the agricultural sub-sectors i.e. farming, live asset producing, fisheries, vegetables and nursery, or any other agricultural activities) as the main occupation.
Food security	In the study, food management, preservation and using in emergencies are referred as food security.

Food grains (paddy, wheat, maize etc.) production	In the study, it include all the steps of producing the crops from preparing seeds, from seed to seedlings, preserving seeds, planning seeds, nurturing etc. to harvesting the crops.
Hridoye Mati O Manush (land and people in heart)	It is a brand name of a specialized agro-documentary programme telecast on *Channel i*, one of the first generation satellite television channels of Bangladesh. The programme is designed, directed and presented by Shykh Seraj, a TV journalist who initiated agricultural documentary *Mati O Manush* (*soil and people*) for the first time in the country on the state-run Bangladesh Television (BTV) in the 1980s'. *Hridoye Mati O Manush (HMOM) is a* feature-based agro-documentary which covers diverse aspects of agriculture as well as the issues of the farmers including their entertainment and empowerment.
Hormone Pheromone Trap	A special type of natural pest control system using sex pheromone of the insects.
Impact	The word 'impact' means 'effect' or 'influence'. In the present study, impact means the effect of the television programme '*HMOM'* on the farmers in changing their agriculture practice.
Jhum farming	A specialized way of farming which involves clearing land, by fire or clear-felling, for economically-important crops such as upland rice, vegetables or fruits. After a few cycles, the land's fertility declines and a new area is chosen. *Jhum cultivation* is most often practiced on the slopes of forest lands.
New and innovative agriculture	The agricultural activities that are not traditionally practiced in the country, for example, high value vegetables like capsicum, hybrid tomato, straw berry, dragon food, Saudi date, fish carps etc.
New agricultural equipment and technology	the technologies that are being practiced in the country recently, for example drum seeder, harvester, power tiller etc.
Opinion leader	The opinion leaders are the people i.e. relatives, friends, village elites like teachers, doctors, religious leaders, Union Parishad members/chairman et.al. who influence on the decision making process of the farmers.

Perception	According to the definitions of the standard dictionaries, perception means understanding and stimulating to an object, event or surroundings. In the present study, perception has been defined as realizing, feeling and understanding of the farmers on the impact of the television programme '*HMOM*'.
Sustainable Agricultural Development	The UN World Commission on Environment and Development (1987) defined sustainable development as a process of development which meets the needs of the present without compromising the ability of future generations to meet their needs. Sustainable agriculture refers to the process of farming with the best utilization of the natural goods without damaging the environment. 'Sustainable agricultural development' means the inclination and attitude of the farmers in agricultural activities in the environment friendly manner.
Television (TV) Programme	A television programme can include different 'packages' and 'platforms' of activities of a TV station. It generally includes news and current affairs, entertainment, magazine programmes etc. In the study, television programmes mean specialized programmes on the agriculture, particularly '*HMOM'* an agro-based documentary of *Channel i*.
Vermi-compost	A special type of bio-fertilizer produced with the use of vermin.

1.5. An Overview of Bangladesh Agriculture

1.5.1. Agricultural Landscape of Bangladesh

Agriculture is an ancient practice or art linked with the human civilization. The synonym of *Krishi* in English is 'agriculture' which has derived from two Latin Words 'Agros' meaning field or land and 'Cultura' meaning cultivate or practice (Joarder: 2006, p.175). So, the lexical meaning of agriculture reveals producing crops by cultivating land. The people engaged in agriculture are called the farmers. According to Banglapedia (2008), agriculture is a science and practice of producing crops. However, in agricultural economy, the word 'crop' indicates specialized meaning. It denotes different types of agro-products i.e. paddy, wheat, maize, jute, sugarcane, cotton, tobacco, potato, tea, vegetables, onion, garlic, turmeric, cattle, poultry, fish, nursery, flowers, fruits and many other products of the farmers. The agricultural sector of Bangladesh has been broadly categorized into four major sub-sectors: food and cash crops, fisheries, livestock and forestry. The figure 1.1 depicts the sub-sectors:

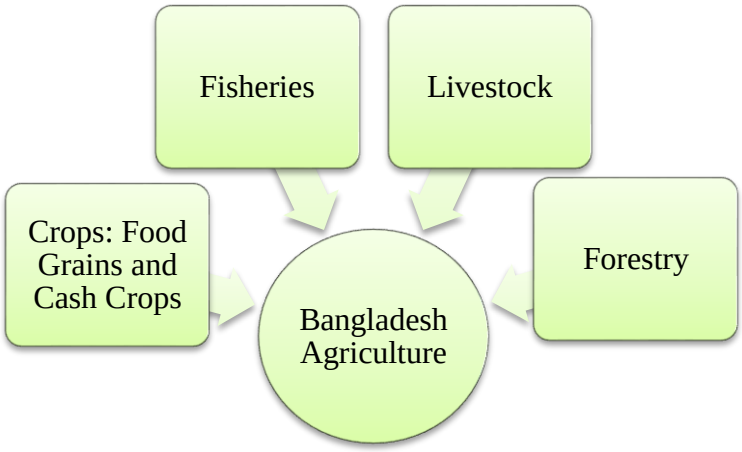


Figure 1.1: Sub-sectors of Bangladesh agriculture

The agriculture of Bangladesh largely depends on the rainfall mostly caused by the southwest monsoon during June-October. From the ancient period, agriculture has become the principal source of livelihood for most of the Bangladesh people. Traditionally, crop production dominated the agrarian economy of Bangladesh while other sub-sectors (livestock, fisheries

and forestry) were perceived as minor or secondary crops. The agriculture policy (2013) states that agriculture is the life-blood of Bangladesh economy which plays significant role in the process of development of the huge folk of rural people through production of diversified crops, enhancement of income and employment generation. Agriculture is a specialized socio-economic sector which supplies food security and ensures nutrition, creates opportunities for income generation and reduces poverty. Scientific crop management, effective and inclusive irrigation, appropriate fertilizer, suitable high breed seeds, attainment of skills in agriculture and crop productions began at the last of the 50's decade (Hossain & Rahman: 2003, p.10).

Bangladesh is a labour intensive country with a huge number of unemployed people. It is perceived that agriculture is a great source of creating employment and poverty reduction. As a single sector, agriculture employs the highest amount of labour forces. According to Bangladesh Economic Review (Alam et.al. 2012, p.23), 52 percent people of the country are engaged in agriculture sector. In Bangladesh, 74.5 percent people live in the villages where most of the people are engaged in agriculture. According to the World Fact Book of Central Intelligence Agency (CIA) of the United States of America updated in April 2016, the agriculture sector occupies 47 percent labour force of the country. Of the labour forces in the sector, the highest percentage, 53.5, comprises of the female farmers while the remaining ones are the male (BBS, 2015). The growth rate in agricultural sector is 3.04 percent and it contributes 15.96 percent in total GDP directly while about 45 percent of GDP come from the agricultural related industry and business.

Despite being engaged the majority part labour forces in agriculture, the amount of labourers are on the rise in non-agricultural sector. The families based on agricultural activities are leaving their traditional occupation since it allows a little to add to their family income. Finding no other suitable alternatives, many farmers have to be remaining in their age-old profession

though they have to suffer a lot in this sector. Moreover, declination of agricultural land at the rate of one percent (which is 222 hector) is being turned into non-agricultural land every year. Thus, the present amount of per capita land 0.066 hector will be shrunk down to 0.053 hector in 2020 (Ministry of Finance 2013). On the other hand, population is growing rapidly and by this time total population goes beyond 160 million while the density of population (1015 people per square kilometer as per census 2011) is estimated about 1100 per square kilometer. In the reality of losing agricultural land and rapid rising of the population, Bangladesh has become tremendous successful in food safety and some other agricultural productions.

1.5.2. Agricultural Sub-sectors

a. Food Grains and Cash Crop

In agriculture, crop is a broader term containing both the farm and non-farm production. Among the farm production, food crops or grains like paddy, maize, pulse, wheat, vegetables, fruits etc. are mentionable while cash crops in Bangladesh mainly comprise jute, tea, tobacco, nursery, forestry and flowers. All these crops grow abundantly in Bangladesh.

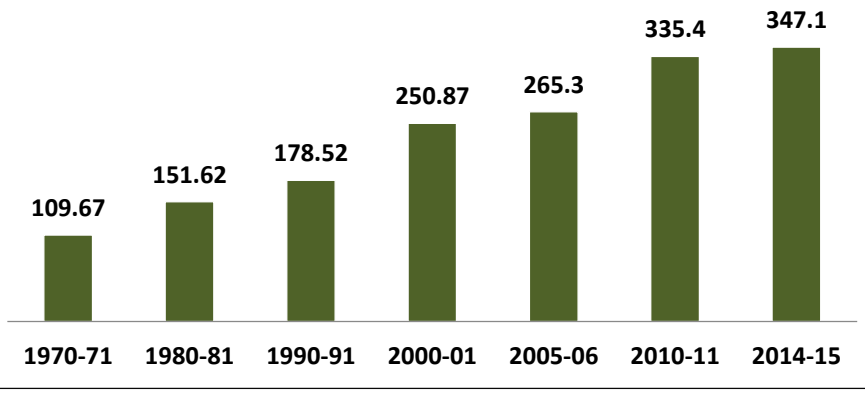
Key food grains

In Bangladesh, the key food grains are rice, wheat and maize. In the 2014-2015 fiscal year, rice has been produced up to 3, 47, 10417 metric ton while the quantity of wheat and maize were 13, 47,926 and 21, 23,572 metric ton (*Krishi Sangbadikota:* 2016, p.15) respectively.

Rice: Rice is the staple food for at least 63 percent of our planet inhabitants and contributes on an average 20 percent of apparent calorie intake of the world population and 30 percent of population in Asia (Akhi, et.al. 2016). Among the 150 different crops grown in Bangladesh, rice alone occupies 77 percent of the total cultivated area (*ibid*). Bangladesh is the fourth largest country in rice production (AIS: 2017).

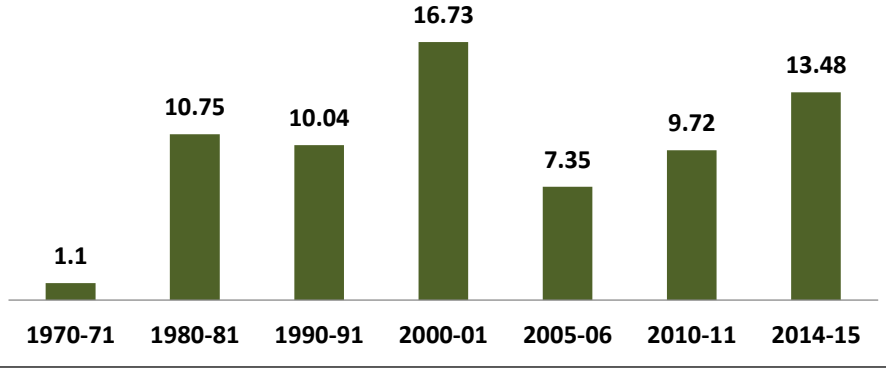
However, in the recent years, production of rice has not increased mentionably since many farmers are losing interest in producing rice due to high production cost and less return form it. In addition to this, farmers in many areas of the country are producing high yield and high valued crops replacing rice.

Figure 1.2 : Production of rice in different FYs (in lac metric ton)



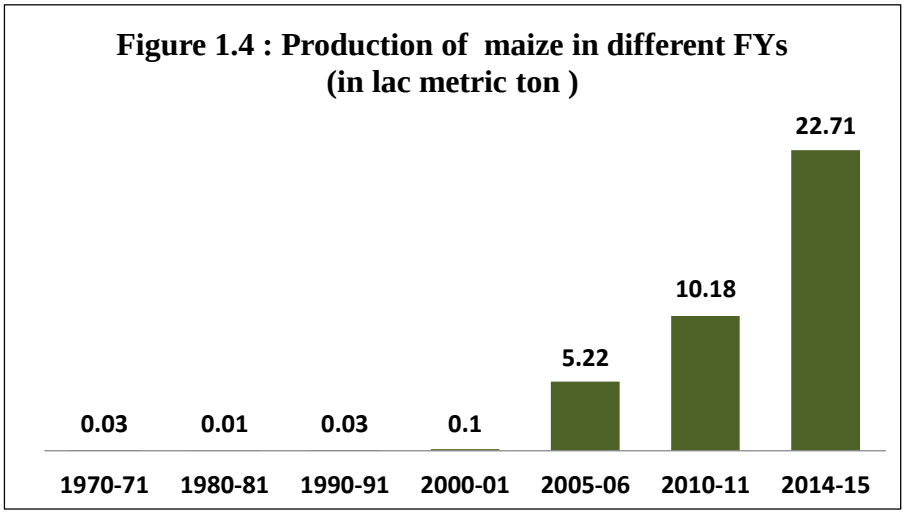
Wheat: Wheat is one of the key cereals in Bangladesh. Farmers in the country cultivated wheat on 453421 ha of cultivated land and produced1375270 metric ton of wheat in the year 2014. Wheat contributes 2.6 percent of per capita per day total consumption of Bangladesh people (Rashid and Hossain: 2016).

Figure 1. 3 : Production of wheat in different FYs (in lac metric ton)



Wheat grows in the sub-tropic and tropic region of Bangladesh. In order to address the increasing needs of wheat, Bangladesh imports a great deal of it. In in the year 2011, the amount of wheat import was 31,12,314 metric ton and from the national statistical source the imported wheat was worth of Tk. 86,46,84,88,000 in the year 2010-11 (*ibid*, cited from FAO Stat, 2014 and BBS, 2011).

Maize: Maize is gradually becoming a significant crop in rice-based cropping system of Bangladesh. Its position as a cereal in the country is considered after rice and wheat. In the recent years, maize is gaining popularity among the farmers mainly due to its high yield, more economic return and versatile uses. The area and production of maize is increasing day by day in Bangladesh and it contributes to expand rapidly at an average rate of 20% per year (Rohman 2015).



Food grains are considered as the fundamentals to our agriculture since the sector ensures our food security. However, the farmers across the country are losing interest in producing rice due to higher expenses and labour than to return. They are now becoming more interested in growing maize, fruits and vegetables than growing paddy. [Note: The figures no. 1.2, 1.3 and 1.4 have been designed on the basis of information published in the *Daily Prothom Alo*, 18 October 2015].

Vegetables: Vegetables are one of the major agricultural sub-sectors in Bangladesh of which the production increased to 9 percent from 2001 to 2010 (Alam et.al. 2016). At present, many farmers are interested to cultivate vegetables since the profit in this sector is relatively high. However, the trend of vegetables production is lower than other countries. Of the vegetables, potato is the most important crop of Bangladesh. Its position as a crop comes after rice and wheat. Potato is used both as food and vegetables which contributes 63 percent of the total annual vegetable production in Bangladesh (Uddin, et.al. 2015, cited from BBS, 2008). Bangladesh has made a reasonable progress in potato production during 1950-51 to 2011-12.

Area and production under potato has increased to double during the same period due to favorable soil and climate.

Vegetables and fruits are exported in 45 countries and the expatriate Bangladeshis are a great consumer of these fruits apart from the foreign consumers. In the vegetables sector, some organizations and establishments are closely related, for example, agriculture information service, IPM club, the distributing organization of seed and related materials, seed serving dealers, retail sellers, fertilizer factories, exporting farmers, whole seller, markets, super shops, hotel and restaurants (*Krishi Sangbadikota*: 2016, p. 22). After cultivation, it takes a long procedure to reach to the targeted customers. In the process of vegetables cultivation, female farmers contribute greatly.

There are some visible obstacles in this sector which deter expected level of production and profit. Many farmers are not oriented with the profitable cultivation system, sufficient information about vegetables cultivation, appropriate seed and market information as well as processing and storage of the vegetables. Lack of information and knowledge about choosing right pesticides, production and use of bio-fertilizers and managing of pests by applying natural methods are major obstacles. Again weak marketing communication system, lack of using ICT and lack of market survey are a few of the practical challenges for expected growth. At least 15 percent vegetables are damaged after cultivation.

Production of quality food grains depends on the quality of seeds. In our country, farmers are still a great source of producing quality seeds though government, various non-government organizations and business companies supply varieties of seeds. It is estimated that production of quality food grains can be increased upto 15-20 percent every year by using quality seeds.

Production of the crops also depends on quality of soil, fertilizer and weather. It is true that the soil health is being deteriorated due to use of excessive chemical fertilizer, hybrid seeds and

improved agricultural technology. As a result, soil is gradually losing its natural fertility and being turned into unfertile and deserted. Although, the rate of deterioration of soil health is varied from region to region, the farmers are not well aware of the issue. There is less efforts to regain the natural fertility of the soil. Recently, it has become a matter of concern to maintain food production without causing harm to soil health. Similarly, it is also to note that the fertility of the soils needs to be regained through using natural fertilizers and following the rotation of crop system. Prevention of soil pollution caused by throwing toxic materials on the earth is also a way to preserve soil health.

Growing food grains require extensive irrigation in most part of the country. The comparatively high land having droughts need more irrigation than the lands situated in the lower or marshy region. Both the surface and ground water are used for irrigation. As a means of irrigations, a few methods are practiced including deep tube-well, shallow tube-well, power pump and indigenous systems which has altogether covered about half of the agricultural land in the country. In the recent years, irrigation is being interrupted for lower layer in the ground and surface water, frequent droughts and lack of water-bodies. Commercial farming of high value crops in traditional food grains growing regions and high crop competition are rising as barriers to losing interest in food grain production in Bangladesh.

Key Cash Crops: Jute, Tobacco and Sugarcane

Jute: Jute is a significant cash crop of Bangladesh which was once known as the golden fiber of the country. Jute fiber is produced mainly from two commercially important species, namely White Jute and *Tossa* Jute. Bangladesh is the second largest producer of the jute fiber in the world. Due to favourable weather condition, jute cultivation has persistently increased in the FY 2014-2015. Total area under jute crop has been estimated at 16, 62,100 acres (6, 72,615 hectares) in the year. Total jute production in 2014-2015 FY was estimated at 75, 01,011 bales

which was 0.87% higher than that of the FY 2013-2014 (Source: Yearbook of Agricultural Statistics-2015). Jute is cultivated in the rainy season. In Bangladesh sowing jute usually starts at the end of February and continues up to the end of May, depending on the species. Although jute is grown in almost all the districts of Bangladesh, Faridpur, Tangail, Jessore, Dhaka, Sirajganj, Bogra, and Jamalpur are considered the better growing areas. Total area under the crop is estimated to be 559,838 ha and the total production about 5310,500 bales. Bangladesh Jute Research Institute (BJRI) so far has developed about 27 high-yielding and good quality jute cultivars (Banglapedia: 2015).

Tobacco (*Tamak*) is a type of plant whose dry leaves are prepared for smoking or chewing or as snuff. The Portuguese introduced tobacco in India around 1508, but it was another plant known as Nicotine tobacco, a related species of common tobacco. The common uses of tobacco in Bangladesh are in making cigarettes, *Bidi, Hooka* and, chewing with betel leaves and nuts as jarda. The plant is cultivated as *rabi* winter crop. The average annual production is about 38,000 metric tons from about 73,535 acres of land. The best producing districts are Rangpur, Kushtia, Jessore, Dhaka, Faridpur, Patuakhali, and Chittagong (Pasha: 2014).

Sugarcane: Sugarcanes usually grow well in a rich moist soil under sunny skies in a tropical climate. High humidity during the growing period and dry weather at maturation lead to its satisfactory production. In the past Coimbatore varieties of sugarcane were widely cultivated in Bangladesh. The Sugarcane Research and Training Institute, Ishurdi has introduced nearly 30 sugarcane varieties which cover about 95 percent of the total sugarcane land of sugar mills zones and 25 percent of non-mill zones. Most of these varieties produce 110-120 metric tons of sugarcane per hector having sugar content of 12-13 percent. Among local varieties Mishrimala and Gendari are mostly grown for chewing.

Although sugarcane is grown in almost all the districts of the country, the principal growing areas are Chittagong, Comilla, Sylhet, Dhaka, Faridpur, Jamalpur, Kishoreganj, Tangail, Jessore, Kushtia, Bogra, Dinajpur, Pabna, Rajshahi, and Rangpur. Because it is an annual crop, sugarcane keeps the land occupied throughout the year. Consequently, some farmers are inclined to cultivate other profitable crop rather than sugarcane. This has resulted in a decline in crop acreage as well as the production of the commodity in recent years. Cane is harvested by cutting down the plant stalk. In Bangladesh the harvesting season extends from October to March. There are 15 sugar mills in Bangladesh that use about 60 percent of the cane produced; rest are supplied to the molasses producers. The by-products generated from sugarcane include rum, alcohol, fuel, bagasse, livestock feed, and from the stalk residue, paper and wallboard (Banglapedia: 2014).

b. Livestock

Cow, goat, buffalo, sheep, duck, hen, pigeon etc. are the most productive animal resources in this sector. In the year of 2014-2015, growth rate in this sector was 3.10 percent (2.67 percent contributing to GDP). Despite huge prospects, contribution of this sector is only 17 percent in overall agriculture sector (AIS: 2016, p. 3) of the country. This sector also contributes to the production of leather and compost fertilizer. Leather is a great source of foreign currency as it adds 4.31 percent to our income from the export. Every year 125 million metric tons compost fertilizer are the outcome of this sector as well as 25 percent household fuel. Across the country, a total of 2180 ‘Bio-plant’ installation has already been completed (*ibid*). The directorate of live-stock under the Ministry of Fishery and Livestock is mainly responsible to developing this sector. The live-assets sector of the country is still underdeveloped comparing to the nutritional needs of the people. For example, only 6.97 million metric ton milk is produced against the need for 14.48 million metric tons. Thus, at the individual demand level, availability of milk production is 122 ml. against the standard need of 250 ml per person daily.

c. Fish

Fish is one of the great sources of animal protein. The fishery sector in the country plays a significant role in employment generation, earning foreign currency and supplying nutrition. Fish cultivation means producing more fishes than the natural means in any water bodies in the shortest possible of time with small capital and appropriate techniques in the planned way. There are more than 260 species of normal water fishes available in our country. Apart from these, several hundred fish species are got in the saline water and coastal region. Fish production in the country is inspiring to many people since Bangladesh has achieved the status of being the 4th largest fish producing country in the world (Jobed: 2017). There are three major sources of fish supply in the country: internal open water-bodies, for example (canal, *bill*, river, lake, etc.), closed water-bodies like (pond-marshy lands) and the sea. We get 60 percent animal protein from the fishes. In the fishery sector, 1.2 million people are directly engaged while more 10.2 million people are engaged in this sector on part-time basis. In Bangladesh, yearly demand of fish is 37.65 lac metric tons (Choudhury: 2016). Per capita yearly fish intake is about 20 kg against the demand of about 22 kg which is a good sign of animal protein intake. In the national economy, contribution of the fish sector is (in GNP) is BDT 19 thousands 568 crores (as per data of 2009-2010). Contribution of this sector to the GDP is 3.69 percent and contribution to the overall agricultural production is 22, 60 percent (AIS: 2016, p. 3).

d. Forestry

In Bangladesh, the concept of forestry in agriculture mainly goes with agroforestry. It is the intentional integration of trees and shrubs into crop and animal farming systems to create environmental, economic, and social benefits. Agroforestry takes a good place in agricultural production and crop system. In agriculture, forestry integration mainly indicates to plant various types of trees in homesteads of the farmers, institutional premises, fallow lands along

roads, round the ponds and agricultural lands, embankments, and other unused spaces both for fruits and woods. It is reported that 19 million people in Bangladesh are directly dependent on forest resources for their survival (Syed: 2017). The forestry sector accounts for about 3 percent of the country's GDP and 2 percent of the labour force. The total area of forest land in Bangladesh is about 2.6 million hectares (*ibid)* 2015). Of the total forest area, 84 percent has been classified as natural forest and nearly 16 percent as plantation forest. The forests are essential resources to safeguard the natural resources, biodiversity, wetlands, forests and wildlife for the present and future citizens. Production of forest goods and services do not keep pace with the ever increasing demand with population and economic growth.

1.5.3. Agricultural Land

In the rural context, land is considered as the mother of economic activities. Due to high population density in Bangladesh, land is scarce and, therefore, establishing ownership right over land is always highly competitive. Land forms the basis of our social, economic and political power structures (Islam: 2015).

Total cultivable land in Bangladesh is 85,60,964.75 hectors of which the single crop land is 23,54, 821.74 hectors, double crop land is 38,47,274.49 hectors and the three crop land is 17,15,430.38 hectors (AIS: 2017).

All land areas are not suitable for all types of crops. Seasonally flooded land is suitable for rice cultivation but the use of high yielding varieties (HYVs) is limited to areas with relatively shallow flood depth during the *kharif* season. Deep flooding for long periods limits land use to a single low yielding, deep-water rice crop. Most upland crops are grown in well-drained land. *Boro* is planted in poorly drained soils throughout the dry (*rabi*) season where irrigation is provided and where no flooding occurs before the harvest of the crop. Agricultural land use in coastal areas is limited to wet season cropping because of high dry season soil salinity and lack

of suitable irrigation water. Cropping intensities, therefore, are low in coastal areas. The high rate of population growth accounts for rapid declination of agricultural land. During 1980s, only 15 percent land in rural areas were used as the dwelling houses and non-agricultural purposes which has presently reached up to 30 percent. During 1983-1984, the total cultivated area was 2 crore 2 lakh and 38 thousand acres which decreased to 1 crore, 74 lakh and 49 thousand acres in 1996. During the last 12 years, the agricultural land has been declining, on average, at the rate of about 1 percent (Banglapedia: 2016). Per capita availability of land has normally been declining with the increased population. Bangladesh has been tentatively divided into 30 agro-ecological zones on the basis of hydrology, physiography, soil types, tidal activity, cropping patterns, and seasons (Banglapedia: 2016 & AIS: 2017).

1.5.4. Use of Pesticides and IPM

Pesticides are considered integral part of agricultural activities. They are used for better care of field crops to minimize unpredictable losses caused by pests, insects and diseases. Logical and proper selection of pesticides and their rational use help the farmers to get expected crops. In order to ensure agricultural growth, pesticides are vital force to fight against various types of harms caused by destructive pests, insects and worms. According to Kabir (Begum, A: 2016, cited from Kabir et.al. 2008), pesticides and allied agro-chemicals have become an integral component in sustainable agriculture. In Bangladesh, use of pesticides are on the rise since the last few decades. Researches show that the farmers spray pesticides in their vegetable and crop fields irrationally without proper understanding of exact amount of pesticides against their land quantity. Begum (2016) argues, due to lack of knowledge and non-availability of sustainable alternatives to pesticides, farmers of Bangladesh became dependent on pesticide for crop production. It is assumed that adulteration of pesticides is one of the main reasons of such extensive use of pesticides. A FAO report (2011) reveals that there were lapses between the regulation of pesticide's registration system and their implementation.

1.5.5. Cropping Pattern

There are three cropping seasons (*Rabi, Kharif-I or Pre-Kharif, and Kharif-II*) during a year in Bangladesh. According to Agricultural Diary 2017 (p. 141), *Rabi* season generally consists of 152 days from 1 Kartik to 30 Falgun (16 October to 15 March), *Kharif-I consists of 123 days from 1 Chaitra to 31 Ashar* (16 march to 15 July) *while Kharif-II consist of 92 days from 1 Shraban to 30 Ashhin* (16 July to 15 October).

Although declining production in some parts of the country, rice is still considered the major crop to most of the Bangladesh people. So, it still dominates the cropping patterns of Bangladesh. Depending on the type of land, soil characteristics, and availability of water; rice cropping may be single, double, or triple. In general, double or triple rice cropping is practiced in high land areas while mixed cropping of *Aus* and broadcast *Aman* is common in medium lowlands. Deeply flooded lands are suitable for single cropping of broadcast *Aman* (deep-water rice) in *Kharif*, or *Boro* in Rabi season. Drought-tolerant and short-duration crop species are common in rainfed-dryland areas. These practices provide farmers with opportunities for harvesting diverse crops from the same land, increasing total land productivity, and maintaining and improving soil fertility through the use of pulses. Boro, Aus, jute and maize are the most important rainfed, dry-land crops in Bangladesh.

1.5.6. Climate Change Issues Related to Agriculture

Bangladesh is one of the top most vulnerable countries in the world in terms of the risks and shocks of climate change (Daily *Prothom Alo*: 11.05.2017, p. 9). The Global Climate Risk Index 2017 prepared by the *Germanwatch*, a global think-tank on the climate changes, show that Bangladesh is the sixth most affected country both in terms of fatalities as well as economic losses caused by the extreme weather events. The report mentions that from 1996 to 2015, Bangladesh experienced 185 extreme climatic events (Melchior et.al. 2017, p. 6) which caused a huge loss of human and animal lives and properties. The impact of global warming and

climate changes are most critical for Bangladesh due to its geographical location, high population density, high levels of poverty, and the reliance of many livelihoods on climate-sensitive sectors, such as agriculture and fisheries. Climate change impact on human health is a global concern. Various climate change related events like heat waves, cold waves, flood, drought, salinity intrusion, cyclone etc. have direct and indirect adverse impacts on human health (Climate Change Cell: 2009).

Bangladesh is affected by almost all the environmental hazards that usually occur in a tropical region. A single environmental disaster such as tornado, massive rainfall or tropical cyclone and flood destroy the farmer's whole year labour. It is apprehended that due to global warming the rise in sea level in future may inundate vast areas of the southern Bangladesh by sea water. Moreover, in the recent years, changes in the ecosystems are of great concern about sustainable agriculture. The major environmental issues which need to be addressed are floods, droughts, cyclones (and tidal surges), river bank erosion, soil erosion, land degradation, declining soil fertility, tornadoes, earthquakes, nor'westers and hailstorms, salinity, siltation, extreme temperature and heat waves , cold waves, pests and diseases of the crops. Major 'man-made' environmental problems are landslides, depletion of ground water table, declining of forest, fish and livestock resources, and air and water pollution.

1.5.7. Sustainable Agriculture in Bangladesh

Presently, sustainable agriculture is a much talked-about issue in Bangladesh. The National Agriculture Policy 2013 emphasized on sustainable agriculture (p. 4) and avows to undertake initiatives in line with the same. Similarly, the National Food Policy 2006 also stresses on safe and nutritious food for people. Aligned with these policy frameworks, various department and wings of the government are working to achieve sustainable agriculture. But, our experiences show that a segment of the farmers being unaware of the proper use of chemical fertilizers and

pesticides is causing harms to the agricultural system. A section of the fertilizer traders are making available the harmful and hazardous chemical fertilizers to the farmers who are using the same without understanding their proper doses and environmental consequences. In many regions, water-bodies and the forestlands are being destroyed for agricultural activities and habitations to get immediate benefits which adversely affect the agricultural environment of the country. In some cases, the natural environments are being interrupted for agricultural activities which can also bring negative impact for the future generations. Sustainable agricultural practices need to be considered from the viewpoints of all the three key aspects – social, financial and the environmental.

1.5.8. Agricultural Extension and Training

Agricultural extension is an applied science, consisting of the contents derived from research, field experiences and relevant principles drawn from the behavioural sciences synthesized with useful agro-technologies. Extension involves the conscious use of agricultural information and innovations to facilitate the farmers to adopt decisions. Agricultural extension activities in Bangladesh in crop, livestock, and fisheries sectors are organized, managed, and operated by the Department of Agricultural Extension (DAE), Directorate of Livestock Services (DLS), and the Department of Fisheries (DoF) respectively. Of these, DAE is the largest organization having extensive networks across the country. Innovations of the agricultural subsectors are shared through the farmer's field level schooling and group orientation. However, sub-assistant agricultural officers who provide the farmers with necessary information and guidelines at the field levels cannot reach the farmers as expectation due to inadequate recruits.

1.5.9. Women in Agriculture

In Bangladesh, women are an essential part in the household and farm activities. Comparatively the women are more involved than that of their male counterparts in the post-harvest operations (Rahman et al. 2016, p. 183). The women are responsible in every stage of rice farming namely like seedling, nursing, harvesting, rice storing, seed preservation, straw drying, weeding, thinning, cleaning, boiling of grain, threshing, drying, husking etc. Besides, the women also perform significant tasks in rearing livestock, raising poultry, doing homestead gardening, taking care of fishery and many other crop productions. Despite performing intensive role in agriculture, their contributions are rarely considered and valued. Unlike male, their contribution are not accounted and credited by their family. Traditionally they themselves are also not aware about their contribution (ibid, p. 181).

A study conducted in two villages of Taragonj Upazila of Rangpur District with a view to assessing the contribution of rural women in their family income and employment generation activities shows that the female workers spent 204 days a year on and off-farm activities which generated 89 percent employment opportunities in the family compared to their male counterparts (Rahman: 2013, p. iv). Wage rate of agricultural labor varied between males and females and also in different seasons**.** In *Aus* season, it was BDT 319.80 for male and BDT 218.40 for female. In *Aman* season, it was BDT 366.00 and BDT 247.60 for female. In *Boro* season, the mean wage rates of male and female labor were BDT 283.00 and BDT 195.40 respectively.

Women have continued to contribute in rural economy for a long time. However, their contributions have not been properly recognized in the male-dominated society. Women's contributions are far greater than that of men in the last two stages of the three main phases of a harvesting season-crop production, processing and preservation in the rural agriculture.

Due to religious and cultural obstacles, women in Bangladesh face taboo in outer-home mobility. It is perceived that women should work inside and around their homesteads rather

than in the fields. However, women's tendency of working in the fields is increasing day by day. In the agricultural farms, women are now seen working besides the male farmers. Many women work as the agricultural labourers on daily basis. However, they are exploited twice – first, as a woman and second, as a laborer.

At present, in the rural areas, increased rate of women's participation is noticed in ground, particularly in the crops processing, crop preservation, seed production, livestock rearing, vegetable and fruits cultivation in the homestead and in nursery etc. In the fisher's community, female members sort out fishes and prepare them to sell in market. In commercial fish cultivation, women are actively engaged in processing fishes and their marketing process. Since a big chunk of the male members generally head to the cities in search of employment, women have to shoulder the additional pressure of agricultural activities.

Despite the aforesaid contributions, a woman's recognition in the agricultural sector as a producer or a farmer still goes unaddressed. Comparing to their male counterparts, more women live under poverty line. Lack of education, malnutrition, discriminatory wages, inefficiency, high rate of mortality, less oriented on agricultural technology and training, etc. are some of the major factors behind the scenario. In order to overcome the situation, recognition of the women farmers and their empowerment are necessary.

1.6. Agriculture and TV Media in Bangladesh

1.6.1. Tendency of Media Exposure in Bangladesh

Before 1990s, whatever was meant by the media in Bangladesh was the dominance of newspapers and magazines. In that period, only two state-run broadcast channels, the Bangladesh Television (BTV) and Bangladesh Betar (radio) were in operation as the electronic media. Despite huge coverage ability geographically, the aforesaid broadcast channels could not reach the mass audience in the expected level due to control by the governments.

The policy of the political governments coming to the state power after the abolishment of the autocratic regime of the military ruler in 1990 has facilitated the atmosphere of media expansion in the country. Since then, satellite television channels are emerging very fast under the corporate ownership. An estimate of the Ministry of Information shows that there are forty one registered private television channels in the country of which two are temporarily banned (Poriprekkhit: 2016, p.13). These channels are regarded as the medium of entertainment and news. The TV entertainment was initiated by the *ATN Bangla*, the first entertainment channel in the country launched in 1997 (Nurunnahar: 2016, p.78). *Channel i*, the first digital Bangla Channel, launched in 1999, started 24 hours programme a day. With the trend of expansion of BTV, the sole state-run TV in the country has also launched a satellite channel titled BTV World in 2005. Thus, the growing satellite channels are functioning as the sources of news, views, education and entertainment especially for the people of lower literacy level.

With the expansion of the satellite television channels, the viewership trend is also on the rise though there is no concrete data on the same. According to a report of Dataexis (2013), 26 percent households possess cable TV while the state-run BTV has country-wide coverage ability and viewership. An estimate of cable operators association and private channels association shows that cable network has reached to 84 percent households in the country (Poriprekkhit: 2016). However, according to national media survey, more than 91 million people in Bangladesh use to watch TV channels (Nurunnahar: 2016, p. 80).

According to a report by the Department of Film and Publications on the statistics of the enlisted print media of Bangladesh released in 2017, the total number of the enlisted print media in the country is 624 of which 479 are the daily newspapers, 99 are the weeklies, 20 are the fortnightlies, 24 are monthlies. Of the remaining two, one is quarterly and the left one is half yearly. Of the total dailies, 203 are published from Dhaka.

Rahman (2016, p. 326) mentions that there are 44 TV Channels in the country of which 26 active and three channels are state-owned. There are 12 state radio centers in Bangladesh in addition to 32 FM radio transmitters. The number of private FM radio is 28 of which 12 are on air. Moreover, there are 32 community radio stations in the country of which 14 are on air. Thus, at present, Bangladesh news media include the broadcast, print and the online/internet-based news portals. The table below shows the number of users/audience of various news media in the country:

Table 1.1: Media and Audiences in Bangladesh

Media	**Number of Audience**	**Percentage of Total Population**	**% Male**	**% Female**	**Audience increase/decrease (%) comparing to 2004**
TV Audience	6,23, 89,779	44.80	51.6	48.4	24.26
Radio Listener	54,65,575	3.92	48.8	51.2	-16.24
Newspaper Readers	2,12, 29,494	15.25	84.6	15.4	5.07
Internet User	15,43,654	1.11	72.0	28.0	-

[Source: Alam, 2014; cited from *Population and Housing Census 2011: Socio-economic and Demographic Report,* National Series, Vol-4, BBS]

In terms of the viewership, television channels ahead of other media for their audio-visual nature. People having little or no formal education can easily understand the messages disseminated by the television channels. Since, nearly one-third of the total population in Bangladesh is still illiterate, newspapers have no mentionable utility to them. They largely depend on the television for information, education and entertainment. One of the mentionable aspects about the audienceship of the radio is that this traditional media is losing listeners day by day due to the rise of the television channels. The online media, for example, internet-based online news portals are new addition to the Bangladesh media having popularity in the urban

areas in general, particularly among the young generations. According to a report of Muhammad Zahidul Islam (The Daily Star: June 30, 2017), the number of the internet users of Bangladesh rose to 70 million in June 2017 of which most of the connections were based on the mobile phone operators. The young generations are primarily the active users of the internet and the online media.

1.6.2. TV Channels and Agricultural Programmes in Bangladesh

Information is pre-requisite for agricultural development which plays key role in every phase of an agricultural scheme. TV is a powerful electronic medium which reaches the audience with news, education, entertainment and developmental motivation programmes. Due to audio-visual nature of this medium, it can draw attention of the millions of people particularly those having little or no educational background.

TV has changed the previous media in terms of presenting news and entertainment. "Television was invented as a result of scientific and technical research. Its power as a medium of news and entertainment was then so great that it altered all preceding media of news and entertainment" (Williams: 2004, p. 3). The most powerful tool of TV is using the 'visualization' of a fact or event. It is said that visualization of a fact is more powerful than the thousands of words. What cannot be described with thousands of words might be led to understand the audience with a single video footage of TV news. TV is the 'superior to the print media' due to its magic power of telling and presenting a fact or event meaningfully and successfully (Acharya: 1987, p. 6).

As a result of the liberal policy of the political governments of Bangladesh, after fall of the autocratic regime in the 1990's, the TV media started to expand in Bangladesh since 1999. At present, there are 39 private satellite TV channels in Bangladesh (Islam: 2016). TV has an indispensable role to approach the farmers with necessary agricultural information. The media

is significant for the farmers for its nature – audio and visual presentation of content which is understandable to a large segment of people having no background of formal education.

Akter & Kabir (2011) think that *Mati O Manush (MOM)* has been a pioneering television program in the history of Bangladesh television. Starting from the mid-1980s, it brought revolution to the agricultural sector of Bangladesh (p. 41). This programme on agricultural reporting was initiated by Shykh Seraj on BTV shortly after its inception. In the initial stage title of the programme was *Amar Desh* (my country) which was turned into a mainstream programme of BTV gradually.

The impact of the programme was noteworthy not only to the farmers but also to the mass audience which played glorifying role in agricultural development. Due to this programme, agriculture has been recognized as a significant content of the media (Krishi Sangbadikata: 2012). Later, Shykh Seraj left BTV but has been continuously producing the similar programme with a little different title *Hridoye Mati O Manush* (Land and People in Heart) for one of the most popular satellite TV channels, the *Channel i*. Following his programmes, some other television channels started agricultural programmes.

The table 1.2 shows the name of the TV channels, their agricultural programmes, frequency and time of broadcast:

Table 1.2: TV Programmes on Agriculture

TV Channels	Title of the Programme	Broadcast Time	Frequency	Remark
BTV	Mati O Manush	22-25 minutes	5 days a week	
	SAARC Krishi (Agriculture)	22-25 minutes	Weekly	Presently defunct
	Krishi Dibanishi	22-25 minutes	Weekly	
	Banglar Krishi (Bengal's Agriculture)	15 minutes	Daily	
Channel i	Hridoye Mati O Manush (Land and People in Heart)	22-25 minutes	Weekly	
	Hridoye Mati O Manusher Dak (Appeal of Land and People in Heart)	22-25 minutes	Weekly	
	Firey Cholo Matir Taney (Revisiting to Roots)	-	Seasonal	
	Krishi Budget, Krishoker Budget (Agricultural Budget, Farmer's Budget)	More than 1 hour	Seasonal	
	Krishoker Eid Anando (Farmmer's Eid Delights), Krishoker Boishakhi Anando (Farmer's Boishakh Celebration); Krishoker Swasthya (Farmer's Health); Krishoker Bishwacup (Farmer's World Cup)	20-25 minutes	Occasional	
Banglavision	Shyamol Bangla	22-25 minutes	Weekly	
ATN Bnagla	Matir Subash	22-25 minutes	Weekly	
Mohona TV	Mohonar Krishi o Krishak	22-25 minutes	Weekly	Now monthly
Diganta TV	Sufola Bangladesh	22-25 minutes	Weekly	Defunct
Boishakhi TV	Krishi O Jibon	22-25 minutes	Weekly	Presently defunct
Ekattar TV	Krishi Jog	15 minutes	Daily	Presently 02 days a week
MyTV	Khamar Bari	22-25 minutes	Weekly	Defunct
Bijoy TV	Krishi Karmo	22-25 minutes	Weekly	
GTV	Sabuj Bangla	30 minutes	Friday/weekly	02 days a week
Deepto TV	Deepto Krishi	30 minutes	Daily	

(Source: *Krishi Sanbadikata* (Agriculture Journalism). (2012). p.58 ; AIS and Interviews; Seminar paper presented on 'Role of Mass Media in Agricultural and Rural Development' on 24 October 2014 by Alam, S.).

It is perceived that Shykh Seraj showed the pathway of covering and producing programmes on agriculture in Bangladesh. Being inspired by him, other television channels have launched agricultural programmes recently. Some of his apprentices are now working in different channels who are producing in the agricultural programmes. But, these programmes are yet to reach to the grassroots people due to weakness in planning, content selection and production according to the experts.

1.6.3. Role of TV in Bangladesh Agriculture

TV can play vital role in disseminating agricultural information to the people, especially the farmers in a very fast rate. They are useful as sources of agricultural information to the farmers and as well constitute methods of notifying them of innovations, latest development and emergencies in this sector. They could equally be important in stimulating farmers' interest in new ideas and practices (Ani et al. 1997). Radio and television are the most effective tools in communication for the support of development (Hussain, 1997). In Bangladesh, television channels in general are yet to get their focal point in development issues since they are still in the growing stage. Due attention is not paid on the socio-economic development of Bangladesh in their content planning. It is thought that most of the episodes of *Mati O Manush (MOM)* on BTV and later *Hridoye Mati O Manush (HMOM)* on the *Channel i*, both planned and presented by Shykh Seraj, attempted to cover development issues through covering agricultural issues.

Akter, N. & Kabir, W (2011) said in their study, 'Empowering Farmers through Mass Media: A Success Story of Mati-O-Manush Television Program in Bangladesh':

> " Mr. Shykh Seraj who was initially associated with the Mati-O Manush program, has been instrumental to telecast a new program titled "Hridoye Mati-O-Manush" (Soil & Men in Heart) on Channel i with new innovative ideas. This program is aimed at economic development, poverty alleviation targeted to farmers, local leaders, business community, stakeholders, policy makers, donor organizations, UN Agencies, civil society, entrepreneurs and developers in the country.

> On 21st February 2004 (International Mother Language Day), Mr. Shykh Seraj started a 25 minute program Hridoye Mati-O-Manush on Channel i. It has been able to attract the attention of the audience much like its earlier version Mati-O Manush on Bangladesh Television. Now the Hridoye Mati-O-Manush program is headed by Mr. Shykh Seraj with a team of dedicated and well-trained professionals to produce effective television programs for farmers" (p.44).

The TV channels generally showed less interest to produce agro-documentaries. Due to lack of development programmes on the TV channels, researches are also inadequate in this field. Some of the academic researchers, of whom Professor Golam Rahman is considered pioneering one, emphasized on the television contents focusing the socio-economic and development issues, particularly in the agricultural sector. He (1999) argues that TV channels can function as very useful sources of information, education and motivation for the common people in Bangladesh to communicate the development issues like agriculture, health and sanitation, environment and rights related matters. The audio-visual nature of the televised contents can easily draw attention of the farmers who cannot read or write. The televised messages can be a great sources of necessary information, education, entertainment and motivation for them. The *HMOM* is considered such a programme which has been effectively contributing to the agriculture sector of Bangladesh. However, a comprehensive study on the programme's impact on the agricultural sector has not been conducted yet.

Chapter Two

Theoretical Framework and Literature Review

Chapter Two
Theoretical Framework and Literature Review

This chapter deals with review of available scholarly resources in the field of media, communication and development. The discussion bridges between global and national perspectives to conceptualize the relationship between the perspectives of communication and development. In doing so, this chapter addresses some classical studies as well as recent works in the discipline of communication and development. Upon discussing on the established thoughts in the fields of mass communication and development approaches, the theoretical framework has been drawn. Lastly, the literature review has been detailed focusing on the available researches in the relevant areas of both home and abroad.

2.1. An overview of communication theories related to the study

Scholarly contribution in the field of media effects is huge. After the beginning of mass media expansion across the world, effects of the media became an issue of concern particularly for the scholars of the media and social-psychology. Media effects turned into a matter of discourse due to its perceived impact in the First and the Second World War, especially in propagating war related news. In the early stage of mass media proliferation, the media scholars believed that the audiences were directly influenced by the media and the impact of media was high on the audience. Such notion about the power of mass media by the media researchers was dominant on the whole from 1940s to 1960s. In the early 1970s, a new stream of research on the effects of media was initiated by a group of scholars who believed that the audiences relied on multiple flows of communication rather than one step or two step flows. Effects of media on the audiences was also a factor of individual differences because all the audience were not influenced equally by the same message. The experts gradually shifted their notion that explored that the audiences were more active than the media in many cases. The audiences, on

the contrary to the earlier theorists, were selective in choosing media content. The media researchers like Elihu Katz, Blumler, Gurevitch and Herzog argued that the media exposures by the audiences were strongly dominated by their certain types of needs. They explained that people watched television and used other media to satisfy their certain needs like information, education, entertainment and relaxation.

In the early stage of mass media expansion, people had little opportunities to verify whatever they received from the media. They had to depend and believe the content they received from the media since they had limited alternative options. So, media were thought very much powerful and influential on the audience behavior.

During the 1940s to 1960s, most of the mass media oriented researches were 'functions-effects' based and some of the major researches during the period included: The Invasion from Mars by H.G. Wells (1938); The People's Choice by Lazersfeld, Berelson and Gaudet (1948); Seduction of the Innocent: The Great Comic Book Scare by Dr. Frederic Wertham and Schramm; Television in the Lives of Our Children: The Early Years by Lyle and Parker (1958-60).

In the field of needs-based approaches of media effects analysis, a few prominent studies included: Television in politics: Its uses and influence by Blumler and McQuail (1969); Utilization of mass communication by the individual by Katz, Blumler and Gurevitch (1974); Television and the Older Adult by Davis (1971); Relations between gratifications sought and obtained: a study of television news by Palmgreen et.al. (1980).

Effects of the mass media, particularly the television, attracted the social psychologists too to study the behavior of the audiences after viewing TV programmes. The researchers found that violent television content instigates the audiences to act like what they watched in the TV screen. For example, the study of Bandura (1989) focuses upon the impact of television on the

young viewers and found that the young viewers were influenced seriously by the media contents, especially by the contents with violence. Bandura, thus, argued that the children learnt from observation, in most cases, through selecting models they attracted to depicting a particular character.

Similarly, the 'Cultivation Theory' developed by George Gerbner and Larry Gross (1976) examined the long-term effects of television and identified that the more time people spent 'living' in the television world, the more likely they were to believe social reality portrayed on television. Thus, they showed 'cultivated' effects of television on viewers. To explain 'media effect', Franklin et.al. (2005) implied that media messages had a direct and significant effect on the knowledge, attitudes and even behaviour of the audience.

Media effects, however, need to be viewed from some of the practical aspects of communication flows and effects:

The two-step and multi-step flow of communication: It hypothesizes that ideas flow from mass media to the opinion leaders, and from them to a wider population. It was first introduced by the sociologist Paul Lazarsfeld *et al.* in 1944 and elaborated by Elihu Katz and Lazarsfeld in 1955. Lazarsfeld's two-step hypothesis is an adequate description to understand the media's influence on belief and behavior of the audience. The two-step flow theory surfaced at a time of rapid scientific advancement in the fields of medicine and agriculture. The model described the diffusion of innovation among the American doctors and farmers in the 1950s, but in the present era of saturation, television has made necessary alterations (Griffin: 2003).

Synergic effect: It is caused when two or more things functioning together to produce a result not independently obtainable. The term *synergy* comes from the Greek word *synergia* meaning 'working together'.

Ripple Effect: It creates multiple waves and ripples to crash into each other and overlap as many other different flows. In dissemination of any new ideas or innovations or sharing of any new information, riffle effects are generally created whether a central or suitable place is selected for throwing a message and then roll the same to different destinations.

Boomerang Effects: It is considered as 'bounce-backing' effect of communication where the media messages cannot hit the target, rather affect the source negatively.

The 'Media Uses and Gratification Theory' developed by Blumler & Katz (1974) claims that every individual cares for fulfillment of some particular needs and for that he or she uses mass media. The theory, in fact, looks at the impact of the media from the consumer's point of view. The needs include cognition, diversion, social utility and withdrawal (McQuail: 2010). The theory implies that the audiences are active and the media are passive since the audiences do not take everything blindly from the media rather they are selective. But, in the one-step flow of the communication, the scholars believed that the media were active and the audiences were passive since they were persuaded by the media content.

The 'Media Systems Dependency Theory', perceiving a revised version of the 'Media Uses and Gratifications Theory', suggests that mass media, social systems and individuals are closely interdependent – individuals, groups and society have to rely on mass media to meet up their variety of needs and vice versa. In the words of Ball-Rokeach and DeFleur (1976), dependency is "a relationship in which the satisfaction of needs or the attainment of goals by one party in contingent upon the resources of another party". Both the theories– Media Systems Dependency and Media Uses and Gratifications–emphasized on the needs of the audiences and level of gratification of the audiences.

Gerbner and Gross thought that the degree of impact or media influence on the audiences, particularly the television depends on the level of engagement with television. Miller (2002),

in an attempt to explain the 'Cultivation Theory' states that exposure to television, over time, subtly cultivates viewers' perceptions of reality. It means that as much as the audience's exposure to television, they are influenced accordingly. Wilbur Schramm (1964) thought that media put a substantial impact (as watchman, decision maker and teacher) at both micro and macro levels for the welfare of a country as a whole.

One of the influential approaches of media effects 'Diffusion of Innovation' was outlined by Everett Rogers which was introduced in his book 'Diffusion of Innovation (1962)'. According to Rogers, 'Diffusion of Innovation' theory explains how, why and at what rate new ideas and technology spread. He observes that decision making is a five-stage process: awareness-interest-evaluation-trial-adoption (1962). In the later editions of the book (1983, 1995), he slightly modified the name of the stages: knowledge-persuasion-decision-implementation-confirmation. At the 'awareness' stage, the recipient just know about an innovation while at the 'interest' stage, more information are seeked to have a complete picture on the same. At the 'evaluation' stage, an individual examines the present and future benefits of the innovation while at the 'trial' stage, the individual make a pilot use of the same. The individual tries to continue the use of the innovation at the 'adoption' stage. In this early thought of the 'Diffusion of Innovation Model', according to Rogers, the mass media was reported as one of the key players in creating 'awareness' while at the 'evaluation' and 'adoption' stages, the interpersonal communication sources i.e. opinion leaders were the influential role players. In his revised model, Rogers (1995) changed his terminology of the five stages where the role of individual and the role of media for the innovation remained almost similar to the earlier thought. According to the new thought of the model, mass media continue its influence over the individual at the stage of 'knowledge' and 'persuasion.' The theory emphasizes on interpersonal communication and mutual interaction with others at three remaining stages such as 'decision', 'implementation' and 'confirmation' for successful adaption of the model.

However, he thought the ‘decision’ stage as tougher one since at this stage an innovation is rejected or accepted.

The ‘Social Responsibility Theory’ (Siebert et.al.: 1956) is one of the normative views of the role of media in a particular socio-political structure. According the theory, media is taken to be a spokesperson of the poor and marginalized as well as provides diverse views/perspectives. The media should present the voiceless people and create platform of mutual understanding with the policy makers. Here, media’s objective presentation of information, education and entertainment are aimed at the benefits of the socially excluded and underprivileged people. It is believed that the media does not only serve the interest of the powerful and elite classes rather equality should be maintained in the selection and coverage of the contents. ‘Social Responsibility Theory’ of mass media is relatively a new concept which started in the mid-20th century and is used mostly by developing and least developed countries (Mishra: 2017). The theory emerged from Europe and took a shape with the Commission on the Freedom of Press that happened in the United States in 1949. The model was designed formally by Siebert, Peterson and Schramm in 1956.

2.2. An overview of development approaches related to the study

Following the First and the Second World War, the research initiatives in communication and development were broadly emerged in the early 1950s. Like communication, scholars from eclectic faculties viewed development from varied perspectives. Many scholars argued that development meant improving of the living conditions of the people in a society. But, debate aroused over the ways to achieve the living conditions. Experts from different branches of knowledge outlined diversified thematic approaches to improve the living conditions of people. Such an influential scholastic construction was the ‘modernization theory’ which was based on the ‘neo-classical’ economic concept. In this thought, the Western model of economic growth

was emphasized where transformation of modern technologies in various spheres of life was considered important for development. People of the third world countries were persuaded to adopt technologies by influencing the government policies in favour of industrialization and urbanization. Preston (2002) argues that the theory of modernization offers new nation states of the third world an easy route to the status of developed economies and societies. The theory of modernization was very influential in the 1950s and 1960s (p.78).

Walt Rostow, a US economist and Special Assistant to President Johnson was one of the key proponents of the free-trade and modernization perspective in the 1960s who compared the process of development for a country in the five stages – traditional society, pre-conditions to take off, take-off, drive to maturity and age of mass consumption (Global Learning: 2017).

In an attempt to understand the relationship between the economic activities, communication and development, Daniel Learner conducted a longitudinal study in the six Middle Eastern countries on 1600 individuals. He revealed that the mass media played significant role in shaping the people's attitude through viewing and learning the rich cultural systems of the West. The people, through exposure to the diversified content, became aware of what was happening in the developed countries and became 'mobile personality' and grew 'empathy' to view a situation replacing the individual himself or herself. The second element of social dynamic of the Learner's study was 'The Mobility Multiplier: Mass Media'. According to Schramm (1964, p. 47), Learner's realization about the mass communication was that it served as 'the great multiplier' in development which could spread the requisite knowledge and attitudes immeasurably more quickly and widely than ever before.

Learner's study stimulated Wilbur Schramm and many other communication scholars. In the book 'Mass Media and National Development (1964)', he stressed on the use of mass media in popularizing the tech-based development in the Third World countries through attaining

skills and exposure to the mass media, and thus contributing to modernizing society. Relevant studies conducted by some prominent rural sociologists including Everett Rogers further put emphasis on the use of electronic media, especially the TV to facilitate adoption of the agricultural innovations in the developing countries.

In the 1950s, it was a common assumption that the low level of development in many countries was partially due to low level of expectations, especially among the farmers. The mass media were thought to have catalytic ability to raise hope among the people. However, media were also considered as the agents for raising frustration. Chu and Alfian (1981), however, held the opinion that the people should not be kept in dark in the face of rising frustration, rather they should be facilitated to participate in the national development.

In the process of development of many third world countries, various government departments like health, education and agriculture included an 'extension' department to reach the marginalized people with experimental ideas, information and knowledge. Most of the extension programmes were based on the 'Diffusion of Innovations' theory introduced by Everett Rogers (1962). He mentions, diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. Rogers defines an *innovation* as an idea, practice, or object that is perceived as new by an individual or other unit of adoption. " The diffusion model assumes that a proper combination of mass mediated and interpersonal communication strategies can move individuals from a process of awareness (usually a new technology) through interest, evaluation, trial, and finally the adoption of that technology" (Melkote & Steeves, 2001, p. 56). The model has been criticized as 'pro-innovation', 'pro-persuasion', and 'top-down' approach.

Wilbur Schramm (1964) asserts that only when people are informed and motivated, they can contribute to a national endeavour to develop. In the process of informing, educating and

motivating the peasants, the mass media can play significant role according to Schramm. In his words, "In the service of national development, the mass media are agents of social change (p. 114)."

Being inspired especially by the research work of Wilbur Schramm, YVL Rao, an Indian development communication expert, conducted a comprehensive study in two Indian villages and contributed to exploring the relationship of communication and development. Rao (1966) argues that there was a strong role of communication in shaping socio-economic and political sphere of people. In addition, he observed that communication helped a person find alternative ways of making a living. He explored that communication reduces the pressure on land; communication helps raise a family's economic status and broadens the entrepreneurial base (Rao: 1966, p. 98-99).

These thinkers were influenced by the modernization perspective and tried to explain their thoughts extensively in the light of the paradigm. Gradually, the paradigm has been challenged by the scholars having different point of views on development. Valenzuela & Valenzuela (1998) argues that the modernization perspective had fundamental flaws which made difficult that difficult to provide for a fair test of that's own assumptions. The perspective drew a model with "universal validity" which assumed that traditional values were not conducive to modern behavioural patterns of actions (p. 272). Preston (*ibid*, p. 78) observes that the modernization perspective has subsequently been criticized for illegitimately generalizing the model of the West and more particularly the model of the USA.

Criticizing the modernization approach, 'critical' perspectives argued for political and economic restructuring to benefit the people of a society equally. Although this perspective exposed well the flaws of the modernization, it could not suggest the concrete alternatives. 'Liberation' perspectives constitute the third wave of scholastic approach to interpret

development from the humanitarian ground. According to the perspectives, all the human beings have some potentials who want to be self-reliant by utilizing their capacity to self-development. These three thematic approaches of development were different from each other though their fundamental goal was to define and operationalize development from the respective views.

In the early 1970s, 'Dependency' perspective emerged of which the main theme was to keep balance between the developed and the poor nations in terms of global trade. Andre Gunder Frank, a German-born political economist, studied in Latin America was prominent in this thought in the 1970s who stresses on the equal opportunities for the rich and poor nations in the global trade.

Challenging the modernization perspectives, a few Latin American scholars thought of alternative ways in the communication, development and education sectors including other important areas of national development. Much of the inspiration for this shift came from the work of Freire who viewed the traditional pedagogy as analogous to modernization approaches to development (Huesca: 2003).

Paulo Freire (1921 – 1997), the Brazilian educationalist, has left a significant mark on thinking about progressive practice particularly in the education sector which also influenced the communication and development. His *Pedagogy of the Oppressed* (1970) is one of the famous books which outlined significant theoretical approaches to the aforesaid sectors. In the book, he stressed on the 'dialogic education' meaning dialogue between the educators and educatees which was equally important for the communication sector. In the development communication, according to him, participatory approach of designing, disseminating and evaluating messages is more effective where the communicators and the audiences exchange on a single platform of understanding. Freire (1973) analyzed the term e*xtension* used in

agricultural projects , in terms of its “associative fields” and concluded that they invited “mechanistic,” “ transmission,” and “invasion” models of communication development (Huesca : 2003, p. 210). According to Freire, participatory development approach allows the participation of the targeted people in the development schemes. One of the concerns of Freire was the ‘praxis’ meaning an informed action linked to certain values. He also emphasized on dialogue which not only deepens understanding but also functions as the part of making a difference in the world. Dialogue in itself is a co-operative activity involving mutual sharing with respect. The process is important and can be seen as enhancing community and building social capital and to leading the people to act in the ways that make for justice and human flourishing. Later in some of the countries, the mass media were influenced by this stream of notion and facilitated the development communicators to design media contents in the participatory manner with the targeted audiences.

During the late 1960s and early 1970s, a new thought emerged which is known as the second phase of development economics focusing more directly on poverty and inequality (Meier & Rauch: 2000). The economists in this though believed that only the growth in GNP was not a sufficient condition for the removal of poverty. Being influenced by this thought, the World Bank emphasized redistribution with growth. The International Labour Organization (ILO) concentrated on ‘basic needs’ stressing on poverty alleviation through long-term initiatives. Much of the development literature turned from an emphasis on industrial development to the rural development (*ibid,* p.70). In the 1980s, a different type of perspective was emerged under the banner of ‘Washington Consensus’ where the organizations like the World Trade Organizations, International Monetary Fund and the World Bank advocated for ‘trade not aid’. In this concept, it was believed that free global trade can stimulate economic growth and the large business can profit more without government interventions. It was advocated that if the Transnational Corporations (TNCs) can easily initiate their business interventions in the third

world countries, large-scale employment will be created which will result in more local spending and consumption. This will ultimately promote economic growth.

During the 1980s, sustainable development, another influential stream of development thought was chalked out by the Brundtland report. GRO Harlem Brundtland was the former Prime Minister of Norway who chaired the United Nations' World Commission of Environment and Development. The commission report emphasizes on the environmental factors in the development planning for ensuring sustainable development without compromising the ability of future generations to meet their own needs. According to the report, three key pillars of sustainable development are the social, environmental and economic aspects. All the development projects should be considered in terms of these pillars. The sustainable development needs to be viewed through equality across the society without causing environmental degradation. It should be considered that the economic growth should fit within natural limits, and the earth cannot support an ever-expanding greed of productions. In the field of agriculture, sustainable development can be understood as a process of cultivation where the future generation will not be negatively affected. In this concept, environment friendly agricultural activities are given priority. Natural geo-diversity, bio-diversity and land diversity should not be altered. For example, agricultural activities should not be performed in the forests by cutting down trees, in the water-bodies by filling in the same. Excessive pesticides should not be used rather the farmers are encouraged to use bio-fertilizers for keeping both the soil and human health safe.

In the 1990s, a new stream of development approach emerged especially within the conceptual framework of 'Human Development' where the development has been proposed to view as the result of multiple index– expansion of the richness of human life rather than considering the economic growth traditionally measured by GDP and GNP only. It is an approach that is

focused on people and their opportunities and choices (UNDP: 2016). The human development approach shifted the development discourse from pursuing material opulence to enhancing human well-being, from maximizing income to expanding capabilities, from optimizing growth to enlarging freedoms. It focused on the richness of human lives rather than on simply the richness of economies, and doing so changed the lens for viewing development results (*ibid*, p.2).

Economist Mahbub Ul Haq was one of the prominent thinkers on this approach which was later enriched with the successive researches of Amartya Sen, an Indian philosopher and economist who focused on human welfare. He won the Nobel Prize for his great work on famine and poverty. In his research article, 'Development as Capability Expansion', Sen (2003) outlines how expansion of human capabilities lead to broaden the pavement of development. According to him, different capabilities i.e. education, skills, awareness of health and other life related aspects directly contribute to the standard of life and living. He believes that all the human beings need to have livelihood assets which they can utilize to make choices. Livelihood assets are not only limited to the things of financial value. Rather, it includes things of human, physical, social and natural value. He stresses on five capitals i.e. social capital meaning representatives, friends, neighbours and leaders; human capital meaning education, knowledge, skills an health; physical capital meaning transport, communications, technology and energy; natural capital meaning land, water, minerals and wild life; and the financial capital meaning wages, savings, pensions and remittances. According to him, 'capability' is needed for the human beings to make the right choices from the alternative options. For developing 'capability', one needs education, and information of the surroundings. According to Sen, 'capability' facilitates people to utilize the aforesaid capitals as per their freedom of choices what they will do. Their decisions will be taken by themselves where the government can create congenial environment for them to apply their choices rightly.

For human development, some experts think of the importance of empowerment, an approach in which it is believed that the marginalized, excluded and the underprivileged people need to be empowered for their socio-economic, cultural, political and above all spiritual development. Women empowerment has become one of the core concentration of the development experts globally where equal rights and opportunities are emphasized for the women as of their male counterparts. Jo Rawlands (1997) is one of the famous feminist activists and experts who is globally known for her contribution to the empowerment approach. In her famous book 'Questioning Empowerment (1997)', she mentions that empowerment originates from the concept of power which can take some forms. For example, she mentions of 'power over' as controlling power; 'power to' as productive power; 'power with' as collective power with a group; and 'power from within' as self-acceptance and self-respect (p.13). She argues, "Using the conventional definition, of 'power over', empowerment is bringing people who are outside the decision-making process into it. This puts a strong emphasis on participation in political structures and formal decision-making and, in the economic sphere, on the ability to obtain an income that enables participation in economic decision-making. According to her, individuals are empowered when they are able to maximise the opportunities available to them without constraints. Within the generative, 'power to' and 'power with', interpretation of power, empowerment is concerned with the processes by which people become aware of their own interests and how those relate to the interests of others, in order both to participate from a position of greater strength in decision-making and actually to influence such decisions (p.14).

2.3. Theoretical Framework

Islam and Kabir (2015) argues that a theoretical framework focuses on the relevant established theories that form the base of a study and interpret how the theories are reflected in that study. The theoretical framework of the present study has been grounded on both the theoretical platforms of communication and development.

From the perspective of communication, following five theoretical grounds have been considered for the study:

a) Media Effects/Information Flow Theories
b) Media Uses and Gratification Theory
c) Cultivation Theory
d) Diffusion of Innovation Theory, and
e) Social Responsibility of the Media

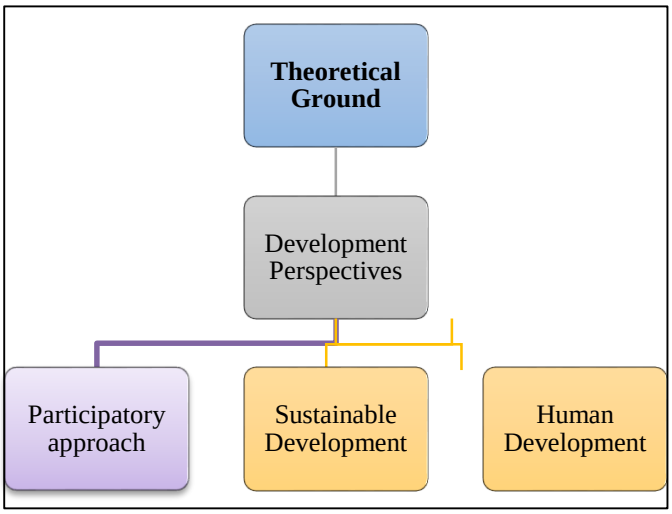
The table below shows how these theories have been reflected in the study especially to understand the impact of *HMOM* programme in changing the farmer's agricultural practices.

Table 2.1: Theories of communication and their reflection in the present study

Theories of Communication	**Reflection in the Present Study**
Uses & Gratification	Farmers' selection of content, their activeness, involvement and satisfaction
Media Effects (one-step, two step flow and others)	Steps of reaching the *HMOM* message to the farmers. Types of effects i.e. ripple (information spreading), synergic (functions together with other factors) or boomerang (bounce-backing the message).
Cultivation Theory	Level of exposure to the TV program and the farmer's cultivation of perceptions.
Diffusion of Innovation Theory	Farmer's acceptance or rejection of the new agricultural information/innovations.
Social Responsibility of Media	Role of the media i.e. the programme in informing, educating, entertaining and motivating the farmers from the social responsibility.

From the perspectives of development, following theoretical grounds have been considered for the study:

a. participatory approach
b. sustainable development
c. human development (capability and empowerment)



In the light of participatory approach, designing and dissemination of the agricultural messages were viewed to understand its nature, i.e. dialogic or monologic. It was also viewed whether the farmers had meaningful participation in the programme. In the light of sustainable development, it was explored whether the programme contributed to making the framers aware of environmental issues in their agricultural practice. It was seen whether the farmers were informed of the programme about the benefits of bio-fertilizers.

In the light of the human development theory, capability of the farmers in terms of making informed decisions about their agricultural choices were searched out whether their empowerment were understood in terms of 'power over', meaning to bring the farmers who are outside the decision-making process into it. In addition, 'power to' refers the processes by which the farmers become aware of their own interests and 'power with', is concerned with power with the fellow farmers meaning the collective power while ‘power within’ refers to feelings of self-confidence. The table 2.2. shows how these development theories are reflected in the present study:

Table 2.2: Theories of development and their reflection in the present study

Theories of Development	**Reflection in the Present Study**
Participatory Approach	Farmer's participation in the programme through interviewing, enthusiastic performances in the programme events like farmer's eid delights; proactive sharing of experiences, needs and problems of agriculture.
Sustainable Development	Farmer's awareness on environmental issues, soil health, farmer's interests in producing and using bio-fertilizers, learning about environment friendly agriculture from the programme
Human Development	Programme's contribution to developing farmer's capability with information and education, agricultural expertise and knowledge of the farmers make them enable to adopt right decisions from the alternative options; farmers' empowerment to influence the national policy makers besides developing their sense of self-respect and self-confidence, value in the community, network and linkage with the government and non-government service providers, etc.

2.4. Literature Review

Significance of information dissemination in the field of agriculture has been traditionally recognized. In the early stage of communication and development studies, the researchers found a strong connection between the appropriate agricultural information and agro-production. Researchers argued that the better informed farmers could produce better crops than those of the less informed ones. In the process of adopting right agricultural decision, techniques of choosing and producing suitable crop as per the quality of soil and environment, cost-effective harvesting techniques, storage of agro-products and their proper marketing; farmers need accurate information.

Hornik (1988) states, "Changes in material inputs, complementary farming techniques, storage technology, and research, supply, and marketing institutions are all part of the technological

transformation. The effective integration of these factors, it is argued, is tied closely to adequate information flows (p. 29)."

Agboola (2000) argues that information plays a key role in agricultural development and production and their effective communication facilitate mutual understanding among farmers, agricultural scientist and extension workers. According to Kaye (1995) good information improves decision-making, enhances efficiency and provides a competitive edge. Knowledge and information are basic ingredients for increased agricultural production and productivity.

Information is a critical resource in the operation and management of the agricultural enterprise. Opara (2008) finds that besides agricultural extension workers, news media, particularly the audio-visual media play as the significant source of information for the farmers. Abbas et al. (2008) argued that lack of information adapted to local needs and lack of technical knowledge at farm level are the important factors responsible for low yield. Information is therefore considered as one of the most important resources in agricultural and rural development that assists the farmers to take decisions and appropriate actions for further development related to farming (Alam et.al. : 2014, cited from Harris et al., 2001; Morrow et al., 2002 and Stefano et al., 2005).

It is thought that television can support the farmers to achieve the target of the better living through diffusing information on different aspects of agriculture. Agricultural programmes of television can focus on the cultivation of seasonal crops, vegetables, fruits, etc. suitable for the particular areas. Selection of right seeds and plantation system for the particular type of soil and environment, use of fertilizer, pesticides, agricultural innovation, natural methods of pest control and management are also important factors in farming of which information are very useful to the farmers. Besides, information on marketing of the agricultural products needs to reach the farmers so that they can get appropriate value of their products.

Empirical data on the impact of the agro-based TV programmes on the farmers in Bangladesh are scanty. Professor Ferdousi (2006) in her doctoral research titled, 'Needs, Expectations and Gratifications: a study on media use in urban and suburban areas of Rajshahi division', found that the key expectations of the audiences from the mass media included quality entertainment, neutral presentation of the contents, reflection of the society, culture and heritage while some of the audiences stressed on media's awareness building role and watch-dog role in a society.

Mass media approaches in disseminating agricultural information are useful to reach a wider audience rapidly. They are useful as sources of agricultural information to farmers and as well constitute methods of notifying farmers of new developments and emergencies. They could equally be important in stimulating farmers' interest in new ideas and practices (Ani et al. 1997). Radio and television are the most effective tools in communication for the support of development (Hussain, 1997). TV can provide an illiterate person valuable instruction and education in agriculture, health population control, sanitation and other aspect of daily life (Rahman, 1999).

A study titled 'Contribution of Television Channels in Disseminating Agricultural Information for the Agricultural Development of Bangladesh: A Case Study' shows that adoption of knowledge and information from the TV channels facilitated production of 91.67 percent farmers of three villages namely *Hariapara, Amgachi and Gowrihar* in Durgapur Thana of Rajshahi District (M.K. Alam et.al. : 2014). This paper tries to present the effect of agricultural information broadcasted by the TV channels of Bangladesh towards the development of the farmers of the Durgapur Thana in Rajshahi District of Bangladesh.

Professor Golam Rahman (1999) implicating the programme '*Mati O Manush'* of BTV, argued that it had gained popularity and even in the urban areas, many people were motivated

to plant saplings of *Kazi Peara* (high yielding variety of guava) and establish small poultry farms at their residence being motivated by the programme, commenced by Shykh Seraj.

With *MOM* programme of Shykh Seraj, definition of a farmer and farming got a new meaning according to many agricultural experts. Before 1990, merely there were any commercial poultry farms. After Seraj's strong television campaign, Bangladesh now has 0.1 billion USD (approx.), involving some 5 million people. He boosted up the fisheries sector which now has some 0.15 million commercial fish-farms involving at least more than 4 million people and has turned out to be an industry, with forward and backward linkage, worth of approximately 3.03 billion USD (ME: 2013, p. 48). He innovated the idea of fish-farming in house-hold adjacent ponds, roof-top gardening and vegetable framing which spread around urban areas quite extensively. The contribution of Shykh Seraj's agricultural programme in commercial expansion of high yielding crops, pisciculture and poultry farms will remain forever (Alam: 2014). Seraj has bridged the gap between the empirical knowledge of the agriculturists and the farmers of the country.

Journalist Rezanur Rahman (2016: p.6) mentioned in one of his articles that the agricultural programme of the *Channel i* has been contributing to the development of the farmers and the agriculture of Bangladesh. He rated the programme as the most popular TV documentary on agriculture in the country.

Gupta and Ferdous (2010: p. 122) observe that the state-run BTV, being always criticized for functioning as the mouthpiece of the government and the ruling political party, was praised for Shykh Seraj's agricultural documentary and feature programmes. Seraj's programmes on agriculture encouraged many people, even from the well-off classes towards carrying out some sorts of agricultural activities they viewed.

Akter & Kabir (2011), in one of their studies, observe: 'Following the glorious success of the program of *Mati-O-Manush,* a number of private channels have introduced agricultural programs. The *Channel i* has started a revised version with the name *Hridoye Mati-O-Manush* which is now rated most popular program in Bangladesh in terms of content, design and presentation (p.41)'. According to them, the programmes planned, produced and presented by Shykh Seraj try to bring the concerns of farmers and agricultural challenges to the notice of the policy makers and others who matter in agriculture. These programs also reflect the ideas of researchers, extension department and policy makers regarding the increasing population, and forthcoming food demand, specifically in the least-developed and developing countries (*ibid,* p.45*).*

In a seminar titled, 'Role of Mass Media in Agricultural and Rural Development', the key speaker argued that many unemployed youths seeking jobs in city areas returned to their villages to undertake fisheries, live-stock rearing, flower cultivation, poultry raising and many other integrated agricultural activities being motivated by *HMOM* (Shahidul: 2014). Mahfuz Anam, editor, *The Daily Star*, the highest circulated English daily in Bangladesh, said, "There is absolutely no question that Mr. Shykh Seraj through his television journalism, has opened up a completely new dimension of journalism in Bangladesh. He has brought the majority of the people of Bangladesh into the mainstream of media as such and his efforts continue to be unique because nobody else has come even near him in doing such an excellent programme" (MW: 2013, p. 48).

Dr. Debapriya Bhattacharya, Distinguished Fellow, Center for Policy Dialogue, one of the notable think tanks in the country views, "Agriculture plays an inevitable role in Bangladesh. Contribution of agriculture sector to GDP is gradually decreasing. But, the new agriculture is standing in front of new horizon and possibilities. These could well contribute in economic expansion, rural development, creating employment, increasing export and in alleviating

poverty. If these are not well documented and presented in front of the politicians, think tanks, economists, policy makers, researchers, entrepreneurs and the citizens with concrete information, we might not own the possibilities. In this regard, research, innovation and publicity – these three are correlated. Shykh Seraj has made a firm bridge of these three important issues" (*ibid:* p.50).

Professor Golam Rahman (1999) observes that, though some of the TV channels have initiated agricultural programmes following Seraj*;* dearth of understanding and inappropriate attitude towards producing the agricultural programmes is noticed among those channels where the dominance of the experts is visible with less participation of the farmers. According to him, Seraj's uniqueness of the programme production is to give more emphasis on the farmer's participation in the programme rather than the experts.

Katalyst, an international development organization working in the agricultural sector development in Bangladesh, jointly conducted a study with Agricultural Information Services (AIS), a government body in 2012. The study revealed that 54 percent farmers received agricultural information from the television where the name of *HMOM* was uttered with importance.

Both the print and the electronic media give emphasis on political news, crime news and other urban issues rather than agricultural news. Agricultural practice and rural economy are generally distracting to the media. Shykh Seraj, through his programmes 'Mati O Manush' and later 'Hridoye Mati o Manush' have brought about a different picture in agriculture. He has presented success stories of the marginal, lower middle class and socially excluded farmers in their bone-breaking efforts of agricultural production which has encouraged them to be more involved in agriculture (Gupta: 2004, p. 82-83). The state-run BTV, being always criticized for functioning as the mouthpiece of the government and the political party in power, has been

praised for Shykh Seraj's agricultural documentary and feature programmes (Gupta & Ferdous: 2010, p. 122). Though the agro-documentary and feature programmes on the agriculture, many people even from the well-off classes were also encouraged towards agriculture according to them. In agricultural technology, handing over the techniques and expansion, HMOM has played significant role (Islam, 2012).

In the doctoral study titled, 'Farm Programmes of Electronic Media: A Comparative Study of Audience Perception in Kerala', researcher Thomas (2010) found that the farmers of Kerala preferred success stories of the farmers in the farm programmes of the electronic media. The farmers thought the success stories encouraging for the people to go for farming and they opined that such stories were good sources of inspiration. However, the farmers emphasized on the entertainment factors even in farm programmes.

Chhachhar et.al. (2014) conducted a study titled 'Role of Television in Agriculture Development of Sindh, Pakistan' where they found that 97.5 percent respondents perceived the television as the best source for agricultural-related information. According to 86 percent respondents, television programmes were effective in increasing agricultural income of the farmers in Sindh.

Kabir (1988, p.128) shows in his doctoral study titled, 'Effectiveness of Radio farm programmes on the Ruralites of Bangladesh' that the village people in both the transitional and traditional villages find the radio farm programmes useful and beneficial to adopt better farming methods. However, the rate of use and adoption of information is somewhat higher in the transitional villages due to the better socio-economic conditions.

Islam (2015) in his doctoral research states that *Hridoye Mati O Manush* has been one of the most popular agro-based programmes on the contemporary agro-economics and development.

He has considered the programme of *Channel i* as one of the highest contributors in the agricultural development sector (p. 75-76).

Khan (2014) conducted a study on the urban audiences of *HMOM* programme where she found that the urban audiences of the programme are positively influenced for their knowledge of agriculture. Thus, *HMOM* has a strong impact on its audience for increasing awareness about Bangladeshi agriculture, challenges and successes. Moreover, the urban audience has more of a realistic and equitable view about farmers than those who do not watch the programme. The study did not consider the farmers in the rural settings who are by definition the lifeblood of Bangladesh economy. In the urban region, some people are engaged in some sorts of agricultural activities but they are not completely farmers by occupation. So, the study has narrowed down the scope of the audience research by not considering the primary targeted audience of the programme, the farmers of the rural settings.

The aforesaid studies had their own focuses, uses, benefits and limitations. These studies provide different aspects of media and development researches in Bangladesh and other countries. The explanations and narratives on the *HMOM* programme have been mostly drawn based on the observations, assumptions and perceptions of the researchers themselves. One of the major gaps in these studies and research-based articles is that they did not capture the farmer's perception on the impact of *HMOM* though the farmers are the prime target audiences of the programme. In this context, the present study has solely focused on the perceived impact of *HMOM* on agriculture and the farmer's agricultural practices by capturing views, statements, experiences and the perception of the farmers.

Chapter Three

Methodology of the Study

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The study aimed to exploring the farmer's perception in the areas of their access to agricultural information from the *Hridoye Mati O Manush (HMOM)* programme, benefits from the use of the agricultural information availed from that, and the impacts on the farmers in changing their agricultural practice. In order to know the impact of a socio-economic and development communication programme, a comparison is generally carried out between the baseline data and the key outputs of the activities after a certain period of time. But, in this case, there were no baseline/panel data since no such studies were conducted before inception of the programme. So, impact of the programme in the study was revealed from the views, statements, experiences and perception of the farmers, the primary target audiences of the programme. Due to the nature of a perception study, methodologists have extensively suggested for adopting several different methods of social research ideally containing the approaches of gathering both the qualitative and quantitative data. Keeping this in mind, the study has incorporated a few methods for gathering both the quantitative and qualitative data from the primary, secondary and tertiary sources.

In order to gather data from the primary, sources, questionnaire survey on the *HMOM* audiences, Focus Group Discussion (FGD) and Key Informant Interviews (KII) were carried out. For gathering data from the secondary and tertiary sources, content analysis of the selected episodes of *HMOM* programme was conducted and relevant literatures were reviewed as and where necessary.

3.1. Research Questions

Aligned with the objectives of the study, following key research questions formed the base of investigation:

i. To what extent do the farmers receive agricultural information from the TV programme *Hridoye Mati O Manush (HMOM)*?
ii. What is the tendency of using agricultural information received from the programme?
iii. What are the benefits of using agricultural information that received from the programme?
iv. How is the perception of the farmers on the design of the programme?
v. How is the perception of the farmers on the programme's contribution to the sustainable agricultural development of Bangladesh?
vi. How is the impact of the programme in changing agricultural practice of the farmers?

3.2. Primary Data: Sources and Planning

3.2.1. Audience Survey

According to the Webster's English Dictionary, survey can be defined as a tool of critical inspection to provide exact information, a comprehensive view, a measured plan or description of an issue or problem. Social surveys allow a researcher to quantify and interpret different patterns of social problems and facilitate to find a solution. It is a popular method of reaching to individual level of a group of people for opinion, statements and experiences. According to Kim SchrØder et.al, surveys have the advantages of flexibility. They are conducted in relatively natural settings, collect large amounts of data over large samples, standardize measurement protocols to enable comparison across very different sub-populations, and are thus, relatively cost effective (SchrØder et.al: 2003). To study media audience, particularly their perception towards a media content, survey research is a much-used method even in Bangladesh.

Considering the value of the method, the present study has applied it to capture the farmer's perception on the *Hridoye Mati O Manus* programme besides some other qualitative approaches.

i. Study Universe and Sample Population

The study universe consists of the farmers in the country and the sample population is the total number of the selected farmers having exposure to *HMOM* programme. The study unit is individual farmer. In order to capture views, statements and perception of the farmers from different segments of agriculture, a village level survey on 425 farmers has been conducted.

Statistical Determination of Sample Size: The sample size for this study has been calculated by the following formula (Malhotra & Dash: 2016, p. 376):

$$N = \frac{z^2 pq}{d^2}$$

$$= \frac{(1.96)^2 \times 0.464 \times 0.536}{(0.05)^2}$$

$$= 382.17 \cong 382$$

Where,

N = Desired sample size

Z = Standard normal deviation usually set as 1.96 which corresponds to the 95% confidence interval

p= Proportion in the target population estimated to have particular characteristics and here it takes to be 0.464 (46.4% household head's main occupation is agriculture, livestock and fishery, HIES, 2010) such that $p + q = 1$; d = Degree of error consideration is 5%.

It is necessary to take into account the design effect because in reality, very few practical designs are as straightforward as considered in sample size calculation using the above mentioned formula. In Bangladesh, for socio-economic estimators, the design effect is

generally greater than one. Considering the above factors, it has been used design effect = 1.1 in determining the total sample size. Considering the design effect =1.1, the total sample = 382 x 1.1=420.2 ≅ 420 [Since the individual respondents cannot be fraction, the total respondents should be more than 420. The survey has covered 425 samples].

ii. Distribution of Sample and Survey Areas

The sample population (425 farmers) has been selected from 14 villages of seven divisions in the country, each covering 02 villages – one transitional and the other traditional in nature. In the survey, village was considered as primary sampling unit (PSU) selected from the district of the respective division. One district from each of the divisions has been taken for the study. From Chittagong division, both Chittagong and Bandarban Districts were selected. From Chittagong district, a transitional village was selected while a traditional village was selected from Bandarban District. The reason behind selecting two districts from Chittagong division was that the division possesses characteristics of both the hilly and the plain land. In order to capture perception of the farmers living in the hilly portion of the aforesaid division, a village was selected from Bandarban, one of the hilly districts of Chittagong. In all the 07 transitional villages, the number of the respondents was 212 while the number was 213 for the 07 traditional ones.

The distribution of the survey respondents shows that the share of the sample population from the selected transitional and traditional villages was equal. For distribution of the samples per village, an ‘equal allocation procedure’ was applied while for selecting individual respondent, every fifth house-hold (HH) was selected (Table 3.1).

Table 3.1- Respondents as per Transitional and Traditional Villages

Division	District	Name of the Village	Type	No. of Samples
Sylhet	Hobiganj	Kalikapur	Transitional	31
		Baghasura	Traditional	31
Dhaka	Tangail	Dakshminpara	Transitional	31
		Kalia	Traditional	32
Rangpur	Dinajpur	Kalikapur	Transitional	30
		Sundarban	Traditional	30
Khulna	Bagerhat	Mulghar (Uttarpara)	Transitional	30
		Kakdanga	Traditional	30
Rajshahi	Natore	Rampur	Transitional	30
		Sankarbhag	Traditional	30
Chittagong	Chittagong & Bandarban	Maizpatty (Fatehpur)	Transitional	30
		Suwalok	Traditional	30
Barisal	Patuakhali	Uttar (North) Muradia	Transitional	30
		Joar Gorobdi Char	Traditional	30
Total (Transitional 212 + Traditional 213)				**425**

iii. Selection Procedure of the Survey Areas

Selection of the Districts: For selecting the districts from the divisions, following factors were considered:

a. Topographical diversity: the plain land, *haor*, hilly and coastal district

b. Distance from the divisional headquarter

c. Time and budget

Selection of the PSU: It was mentioned earlier that the PSU in this study indicates the 'village' selected from the sample districts. From each of the district, two villages were selected of which one was 'Transitional' and other was 'Traditional' in nature. In defining the villages, some

features have been considered from the study of Daniel Lerner (1958), YVL Rao (1966) and Golam Rahman (1999).

The 'Transitional' and 'Traditional' Villages: In the research article titled, 'Communication and their exposure in rural Bangladesh', Golam Rahman has classified 'Transitional' and 'Traditional' Villages in terms of:

- Electrification
- Mobility-connection of the villagers with the city or town
- Link and influence of foreign employment of the villagers
- Influence and contribution of the politicians, etc.

The aforesaid characteristics of the villages match with Daniel Lerner's paradigm, 'Traditional and Modern' villages (Lerner: 1958) and with the concepts of the *Pathuru* indicating old village and *Kothuru* indicating new village (Rao: 1966). However, complete 'modern' and 'traditional' villages in Bangladesh cording to the definitions of Learner and Rao are rarely found at present. For the selection of two categories of villages under the study, following characteristics were considered in the lights of the aforesaid scholars:

- state of literacy of the villagers
- state of income of the villagers
- access to electricity and availability of satellite channels
- state of social infrastructure (i.e. roads, schools, post offices, bazar)
- distance from the district headquarter

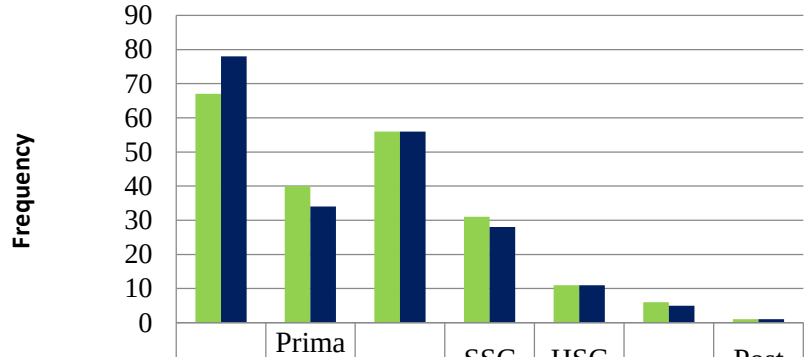
So, based on these features, the villages were defined as 'traditional and transitional'. As the name implies, the 'traditional villages possessed of these aforesaid characteristics somewhat less than those of the 'transitional' ones.

Figure 3.1- Location of the selected districts (green marked) in the map of Bangladesh

Comparative situation of the transitional and traditional villages in the study: In the study, the transitional and traditional villages could be differentiated by the respondent's educational qualification in general and the female's education in particular, and the monthly house-hold income of the respondents came out of the survey findings. These are narrated:

State of education: The survey revealed that the transitional villagers were somewhat advanced than the traditional villagers in terms of education. The rate of illiteracy was somewhat higher in the traditional villages than the transitional ones. However, due to government's policy, rate of literacy is increasing rapidly in the country and the differences between the villages in terms of education is lessening in the recent years (Figure 3.2).

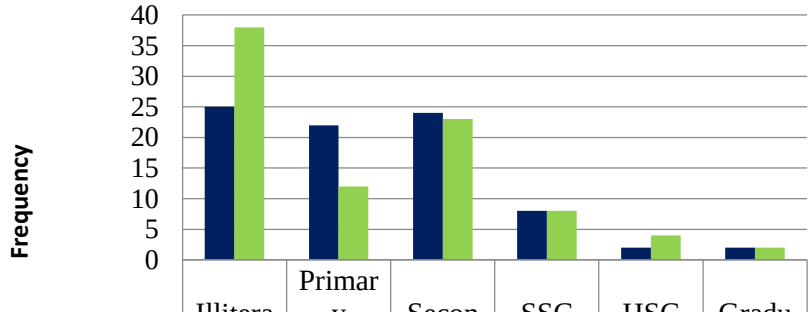
Figure 3.2 - Frequency of the respondents by educational qualification and type of village



	Illiterate	Primary education	Secondary	SSC Passed	HSC Passed	Graduate	Post graduate
Transitional	67	40	56	31	11	6	1
Traditional	78	34	56	28	11	5	1

State of female education: The survey revealed that the female respondents were in a weaker position in terms of educational qualification. This disparity widens in the traditional villages more than that of the

Figure 3.3 - Frequency of female respondents by educational qualification and type of village

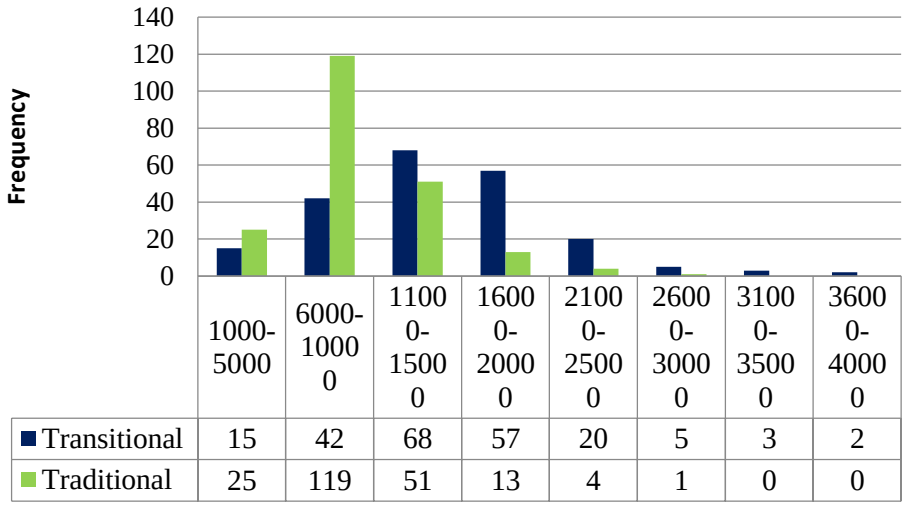


	Illiterate	Primary education	Secondary	SSC Passed	HSC Passed	Graduate
Transitional	25	22	24	8	2	2
Traditional	38	12	23	8	4	2

transitional ones. In the traditional villages, women were lagging behind than the female respondents from the transitional villages. A little exception was found for the case of SSC level education where the respondents from both the type of villages included equally (Figure 3.3).

Monthly household income by type of village: In general, the farmers of the transitional villages are ahead of their counterparts in terms of monthly familial income. There is a contrastive picture in the income distribution of the respondents where more farmers from the traditional villages had an income ranging between BDT 1000-5000 and BDT 6000-10,000 than those of the farmers from the transitional villages. In contrast, more farmers from the transitional villages belong to the higher income groups starting from BDT 11,000. This is a clear indication of the better financial ability and condition of the farmers living in the transitional villages than those of the traditional ones (Figure 3.4).

Figure 3. 4 - Frequency of the respondents by monthly income and type of village



	1000-5000	6000-10000	11000-15000	16000-20000	21000-25000	26000-30000	31000-35000	36000-40000
Transitional	15	42	68	57	20	5	3	2
Traditional	25	119	51	13	4	1	0	0

iv. Selection of individual respondent/sample

Respondents of 18 years and above having exposure to TV programmes on agriculture, particularly *HMOM* were selected as samples. For selecting individual respondents, stratified random sampling procedure was applied. Some socio-demographic characteristics i.e. sex, educational qualifications, age, monthly house-hold income of the respondents were

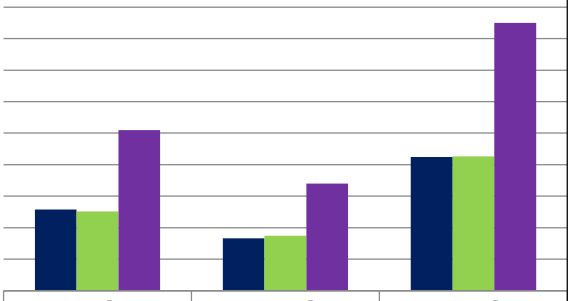
considered. In addition, farmer's major agricultural occupations (sub-sectors) were also considered so that the respondents from different agricultural occupations were covered in the study in the sample.

v. Demographic Features of the Sample Population

Sex of the respondents:

The study shows that the share of both the sexes – male and female in the total sample population was 255 (60 %) and 170 (40%) respectively. In all the seven transitional villages, the number of total respondents was 212 with 129 male and 83 female farmers. In seven traditional villages, the number of male respondents was 126 while the female was 87 (Figure 3.5).

Figure 3.5 - Frequency of the respondents by sex and types of village

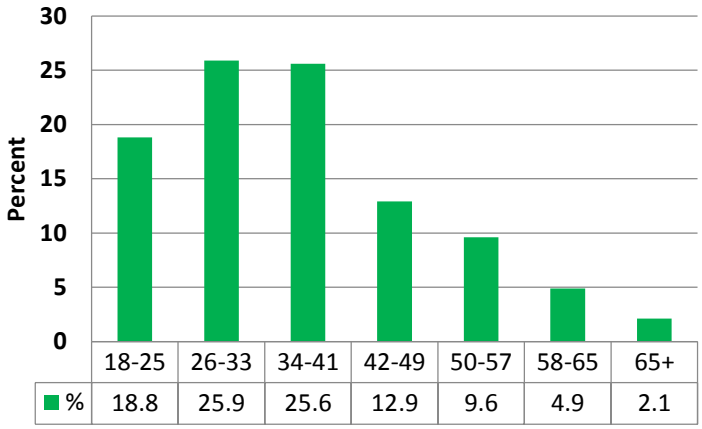


	Male	Female	Total
Transitional	129	83	212
Traditional	126	87	213
Total	255	170	425

The male respondents were 20 percent higher than the female ones. One of the key reasons for lower number of the female respondents was that the exposure of the female farmers to the TV programmes like *HMOM* was somewhat less than those of their male counterparts. In the context of Bangladesh rural society, the female population generally enjoys less mobility and outer world exposure than the male.

Age of the respondents: The study found that the respondents from the age groups of 26-33 and 34-41 were the dominating groups in the age pyramid which depicts the national picture too. It is thought that the populations belonging to these age groups are the wheeling forces of economy of a country. The findings show that after a certain age, the number of farmers shrank gradually indicating that the people lose their farming ability gradually. A drastic decline has been noticed after the age group 58-65. This indicates hardships in agricultural activities that suit some of the specific age groups (Figure 3.6).

Figure 3.6 - Percentage of the respondents by age



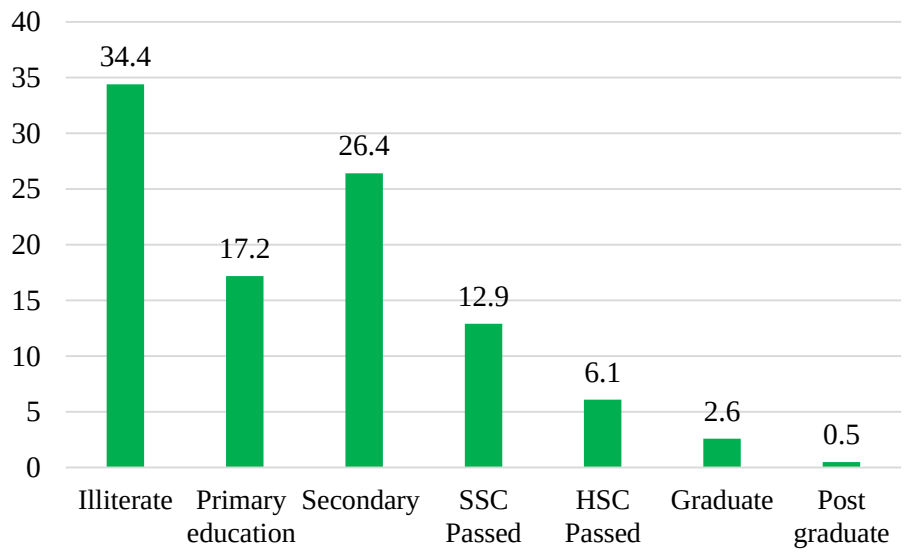
Sex-wise age group: This picture is equally true for both the sexes who are in the agricultural activities. After a certain age limit, the female population also loses their ability in agricultural work (Table 3.2). The findings show that after 50 years, both the male and female farmers gradually withdraw from agriculture due to their age-related complications.

Table 3.2- Sex wise age group

Age Range	Male (N)	Female (N)	Total
18-25	38	42	80
26-33	58	52	110
34-41	65	44	109
42-49	36	19	55
50-57	33	8	41
58-65	18	3	21
65+	7	2	9
Total	255	170	425

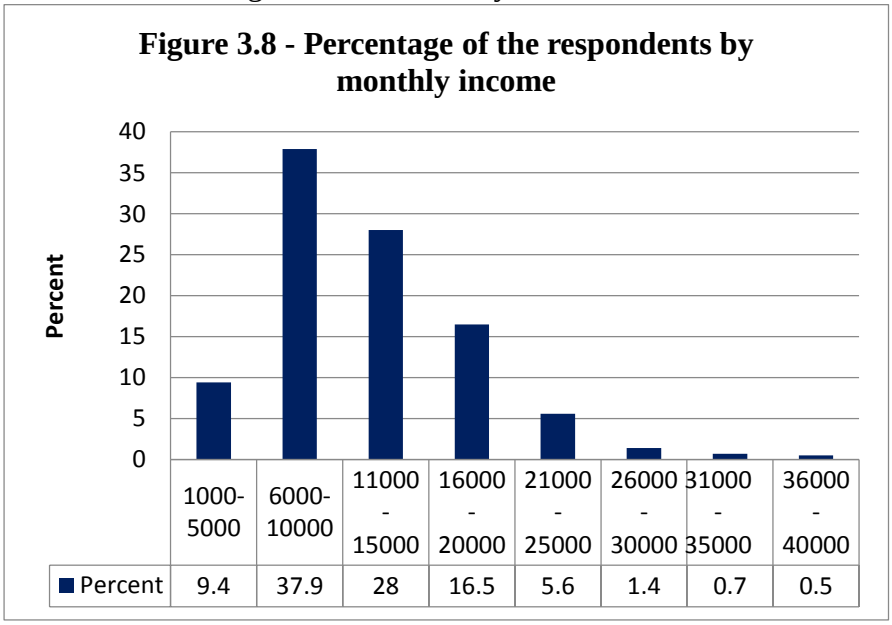
Educational qualification of the respondents: The findings show that 66 percent farmers had education of varied levels in which the secondary (vi-x) level takes the highest share, 26.4 percent while the post graduate level took the least, 0.5 percent. After the secondary level, the number of primary education holders comes the second position while the SSC passed farmers stood third, and then came the HSC level. Only a few percent farmers were graduate. It means that the people having higher level of formal education are less interested in agriculture. This picture of education is almost similar to the national scenario of education in Bangladesh (Figure 3.7).

Figure 3.7 -Percentage of the respondents by educational qualification



Monthly household income: The findings on the monthly house-hold income of the respondents show that the highest percent (38%) of the respondents belonged to BDT 6,000-10,000 income group. The lowest percent (0.5 %) respondents belonged to BDT 36,000-40,000 group. The income distribution shows that most of the farmer's monthly

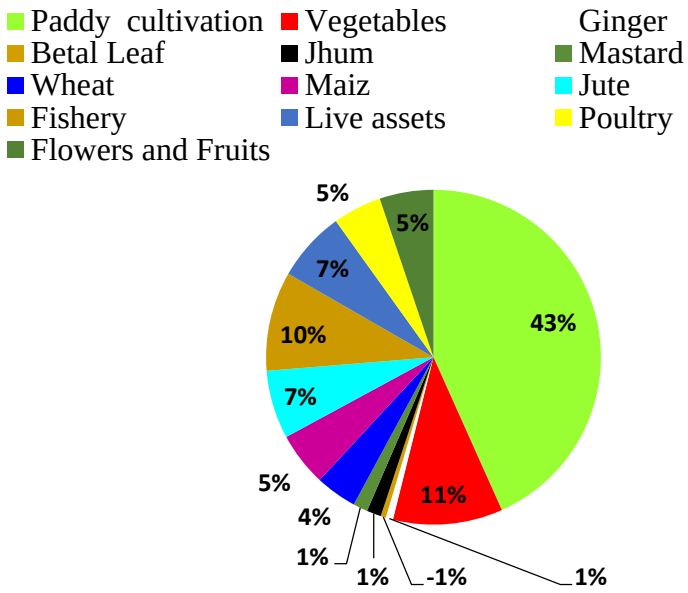
Figure 3.8 - Percentage of the respondents by monthly income



income limited to BDT 20,000. However, some farmers, especially the landless and the marginal farmers used to live a hard life who belonged to the BDT 1000-5000 group (Figure 3.8).

Occupation of the respondents: The study reveals that the farmers were engaged in multiple agricultural activities at a time. So, in the study, the major agricultural subsector of the respondents was considered. The occupational distribution shows that most of the respondents' major occupation was paddy cultivation, the most prominent occupation of the people in rural Bangladesh. Apart from this, a good number of the farmers were engaged in vegetables cultivation, fishery, live assets rearing, poultry rising, jute and maize cultivation (Figure 3.9).

Figure 3.9 - Percentage of the respondents by major agricultural occupations



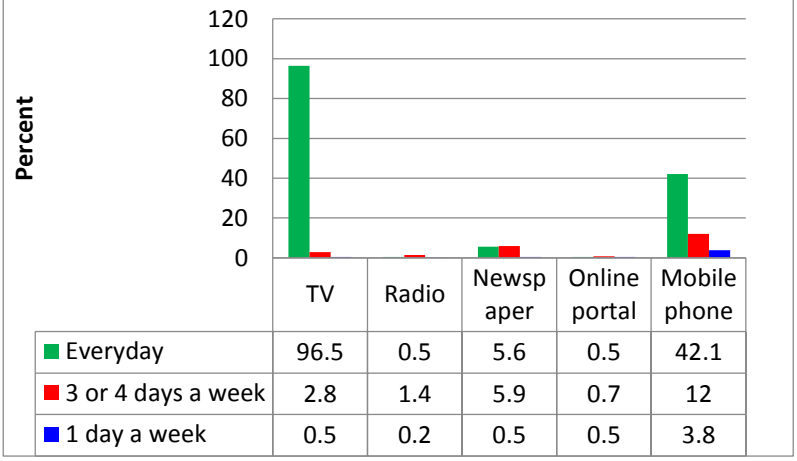
Respondent's exposure to media: After TV (since the respondents having exposure to TV, particularly *HMOM* programme, were selected and thus, 100 percent respondents told of watching the media), use of mobile phone was the second preferred media by 58.4 percent respondents. Newspapers stood third in terms of the same while the use of online portals by the village farmers were the least, only 1.6 percent. Radio, previously a popular news medium in Bangladesh, presently has a little appeal to the farmers. Only 2.1 percent respondents used the media to receive news (Table 3.3).

Table 3.3 -Use of media by the respondents

Media Category	Frequency (N)	Percent (%)
Newspaper	54	12.7
TV	425	100.0
Radio	9	2.1
Online news portal	7	1.6
Mobile phones	248	58.4
Total	743	174.8
• *Due to multiple choices, percentage became higher than 100.*		

Level of Engagement with Media: The survey shows that the highest number of the respondents watched TV everyday where the mobile phone stood second and the newspapers, the third. Radio and online portal for searching news was negligible, only 2 cases (Figure 3.10).

Figure 3. 10 - Percentage of the respondents by level of media engagement



3.2.2. Qualitative Approaches: Focus Group Discussion (FGD)

Focus Group Discussions (FGD) is a tool of participatory and interactive data gathering which allows a researcher to get detailed perspectives, opinion, statements and suggestions of a homogenous group of people on a subject of common interests and understanding. According to Alam (2003, p. 189), FGD is now-a-days a popular research method in social science which is being used as a qualitative approach to substantiate other methods. In the present study, with a view to capturing statements, opinions and overall perception of the farmers in qualitative

manner a total of 16 Focus Group Discussions (FGD) were held in the survey areas undergoing the study. Out of these, seven FGDs were held in the transitional villages and the remaining nine were held in the traditional villages. Considering sex of the respondents, six were held with the female participants while 10 were held with the male respondents. A total of 174 respondents took part in the FGDs of which 117 were the male and the remaining 57 were the female respondents (Table 3.4).

While selecting the FGD respondents, age, sex, educational qualification, income and occupation were considered. The FGD respondents had no chance to take part in the questionnaire survey. The FGDs were conducted with the pre-designed guidelines.

Table 3.4 - Distribution of number of FGDs and participants

Type of Village	Male No. of FGD (No. of Participants)	Female No. of FGD (No. of Participants)	Total No. of FGD (No. of Participants)
Transitional	3 (35)	4 (39)	7 (74)
Traditional	7 (82)	2 (18)	9 (100)
Total	10 (117)	6 (57)	16 (174)

3.2.3. Qualitative Approaches: Key Informant Interviews (KII)

Key Informant Interviews (KII) are a useful qualitative data collection technique used for a variety of purposes, including perception study, needs assessment, program modification, issue identification, evaluation and strategic planning. KII are most appropriate for situations in which we want to ask open-ended questions that elicit depth of information from the targeted samples/respondents. In the proposed study, KII were useful tools in gathering information, views, statements and perspectives in- depth manner related to the television programme and its perceived impact on the farmers.

A total of 35 Key Informant Interviews (KII) were conducted with the agriculturist, media expert, development activist, agriculture extension expert, media academic and researchers, farmer's leader, senior journalist, relevant government official, better informed farmers and opinion leaders, HMOM planner, producer and presenter as well as the senior team members. A detailed checklist and guideline was developed to conduct the interviews.

3.2.4. Qualitative Approaches: Content Analysis

Content analysis is a scholarly approach of studying the content of communication materials/content. The method is popular with mass media researchers because it is an efficient way to investigate the content of the media (Wimmer et.al. 2006). It is a commonly used and specific methodology for analyzing the content of the media. The essence of the content analysis lies in the work of Harold D. Lasswell and Dr. Klaus Krippendorff. Lasswell (1948), through his famous definition of communication, framed the base of the content analysis: "Who says what, to whom, why, to what extent and with what effect?"

Krippendorff (2013, p. xiii) argues that a content analyst should view data both as physical events and as texts, images and expressions which are created to be seen, read, interpreted, and acted on for their meanings. Being a television programme, *Hridoye Mati O Manush* also requires to undergo content analysis approach so that its nature as an audio-visual programme can be revealed. In order to do so, a content analysis frame was developed to extract information from the selected episodes.

i. Sampling for Content Analysis

As of 2016, more than 600 episodes were telecast under the banner of *HMOM* in diversified thematic areas of agriculture. The themes of the episodes can be broadly categorized under the following streams of agricultural activities:

a) paddy and food grain cultivation
b) cash crop production

c) vegetables cultivation
d) live assets rearing
e) fruits, flower and honey cultivation
f) fishery
g) nursery and tree plantation
h) techniques of producing bio-fertilizers (‘grow green’ campaign)
i) disaster resilient crop production, environment and climate change
j) entertainment and farmer’s delights
k) experience sharing of the successful farmers
l) integrated pest management
m) agricultural research and innovation
n) agricultural exchanges with the foreign farmers and farming practices
o) youths’ linkage with the agriculture
p) farmer’s awareness and empowerment
q) rooftop gardening
r) miscellaneous

With a view to understanding overall design and focus of the programme, a total of 26 episodes were selected considering diversity of the subjects presented and the year of transmission. At least one episode was selected from a category (mentioned above) while more than one were also taken for analysis based on the importance of the agricultural sub-sector. For example, three episodes were selected from the sub-sector ‘paddy and food grains cultivation’ since the sector is still more dominant in the agricultural activities of the farmers. While selecting the episodes, year of the programme production and episode number were also considered meaning all the years from the commencement of the *HMOM* programme were covered (Table 3.5).
In addition, a few more episodes on the ‘Agricultural Budget, Farmer’s Budget’ programme held in the year 2017 were analyzed to understand the recent trend of the programme on the farmer’s empowerment and rights related issue. Analysis, examples and experiences from those programmes were mainly used in the relevant part of the report in the chapter four and five.

Table 3.5: Selected episodes, themes and titles of the programmes for content analysis

Year	No of Episode	Date	Theme of the Programme	Title of Programme
2004	09	17.04.04	paddy and food grains cultivation	Paddy cultivation
2004	43	18.12.04	paddy and food grains cultivation	*Hori dhan* (Paddy)
2005	67	18.06.05	nursery and tree plantation	Tree plantation by Kartik Poramanik
2005	73	30.07.05	live assets	Poultry raising
2006	93	28.01.06	fruits	Banana cultivation
2006	116	08.07.06	entertainment	Farmer's world cup
2007	144	03.02.07	techniques of producing bio-fertilizers (grow green)	Bio-fertilizers
2007	177	22.09.07	disaster resilient crop production, environment and climate change	Environment–river erosion in Chandpur
2008	216	05.07.08	live assets	Poultry expansion
2008	229	18.10.08	live assets	Artificial insemination
2009	247	14.03.09	flower and fruits	Strawberry cultivation
2009	281	21.11.09	paddy and food grains cultivation	Aromas paddy
2010	302	24.04.10	fishery	Fish cultivation
2010	317	31.07.10	cash crop production	Jute cultivation
2011	361	25.06.11	research and innovation	Paddy research by the farmers
2011	338	08.01.11	fruits, flowers and honey cultivation	Honey production and crisis
2012	430	01.12.12	research and innovation	Seed innovation
2012	397	31.03.12	farmer's awareness and empowerment	*Krishi (agriculture) budget, Krishoker* (Farmer's) budget
2013	473	26.10.13	vegetables and homestead gardening	Kitchen gardening
2013	476	23.11.13	agricultural exchange between local and foreign agricultural practices	Foreign agriculture (Farm family-UK)
2014	491	01.03.14	techniques of producing bio-fertilizers (grow green)	Vermi-compost
2014	530	13.12.14	youth's linkage with the agriculture	*Firey Cholo Matir Taney* (Revisiting to roots) -*Junior*
2015	578	05.12.15	integrated pest management	Russell IPM
2015	568	12.09.15	live assets	Cow fattening
2016	525	04.02.16	rooftop gardening and greenery	Rooftop agriculture
2016	No episode number	08.07.16	entertainment and farmer's delights	*Krishoker eid anando* (Farmer's eid-delights)
Total	26			

ii. Analysis Keys

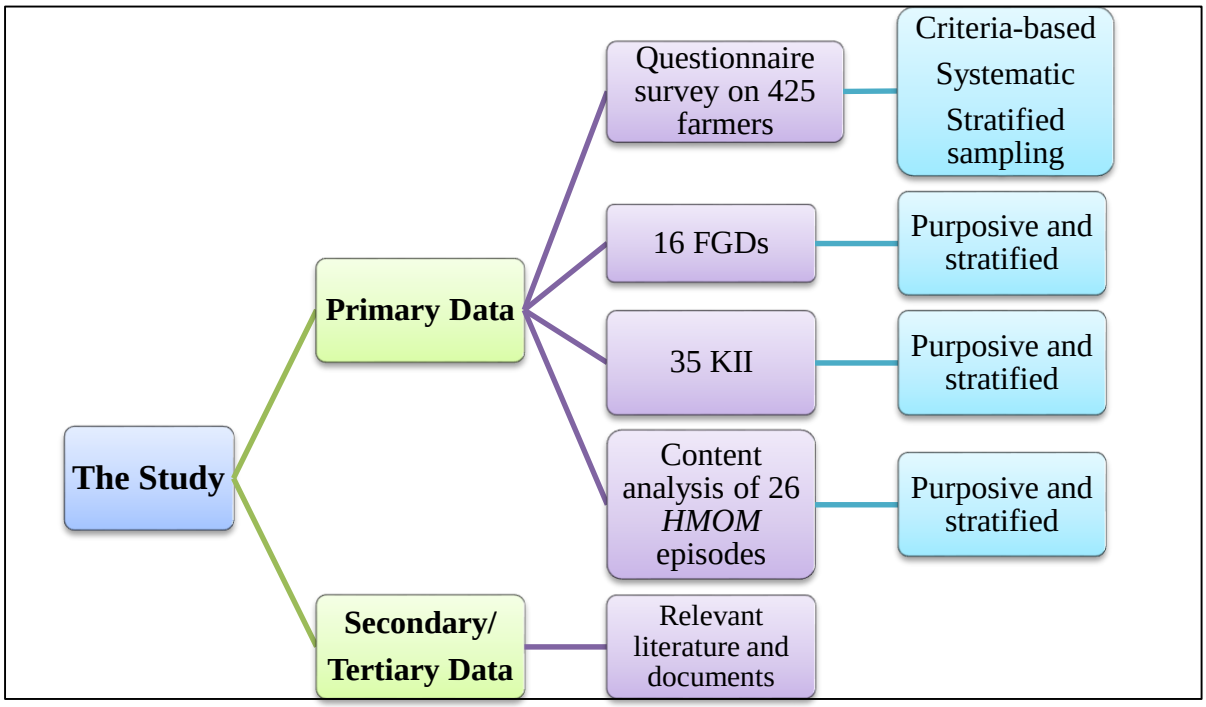
Experts were different in analyzing the media content, particularly the televised programme. Keith Selby and Ron Cowdery (1995, p-299) argued that some principles should be maintained in analyzing a TV media text. Of them, setting, props (sense of associations), non-verbal-codes, dress codes, shot size, camera angle, lens type, composition, focus, lighting, colour etc. should be viewed. According to some other experts, narration, interviewing, synchronization, quality of information, audio and visual qualities are important factors in analyzing production aspects and attributes of a televised programme. Considering the nature of the programme, the content analysis concentrated on the following aspects besides other factors:

- narration
- visual
- sequence
- synchronization
- clarity
- credibility
- interview
- participation
- information quality, and
- presentation style

3.3. Secondary and Tertiary Data

Literature Review: Relevant literature and documents on the role of media in agricultural development, media effects, communication and development perspectives were collected and reviewed accordingly. The literature ideally contained academic books, research reports, thesis, journal articles, media articles and reports, diary, government laws and policies and other relevant publications.

Figure 3.11 - Research methods at a glance



3.4. Study Administering: Data Gathering and Analysis

3.4.1. Questionnaire Survey

Developing Survey Questionnaire: Following rigorous review of literature and understanding diversified content of the programme, the survey questionnaire was developed aligned with the study objectives and the research questions (RQ). A pre-testing of the survey questionnaire was conducted on five percent sample of the total respondents at Bordail, a village of Kulla Union under Dhamrai Upazila of Dhaka District to understand suitability of the instrument. The difficulties and problems faced in the pre-testing were analyzed and the instruments were revised and finalized accordingly. It was carefully examined whether the instruments covered the objectives of the study comprehensively. There were nine segments in the questionnaire that contained 50 questions, ‘close’ and ‘open-ended’ altogether. The segments included:

a. Demographic information of the respondents

b. Media exposure habit of the respondents

c. Tendency of watching the TV programme *Hridoye Mati O Manush*

d. Remembering (recall) of the programme content

e. Access to agricultural information from the programme

f. Use of the agricultural information and benefits

g. Gender dynamics

h. Impressions of the programme (Legibility of message and presentation)

i. Perceived impact (Change of agricultural behaviour) of the programme

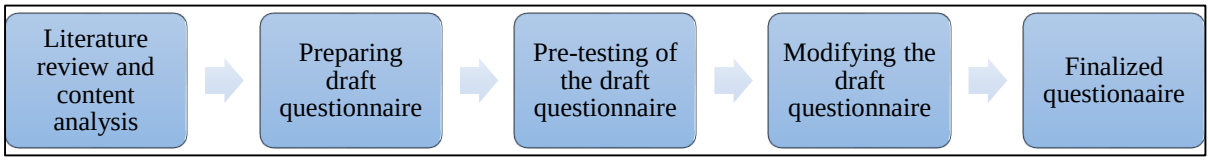


Figure 3.12 -Steps in Questionnaire Development

Data Collection Process: A systematic random sampling procedure was followed for collecting data from the farmer's household using the finalized questionnaire. A step-by-step guideline was prepared and distributed to the associated data collectors for recording accurate data. Data collection began from the centre of a selected village to find out appropriate respondents. Every fifth household was randomly selected for interviewing the individual respondent.

Data Coding, Entry and Analysis: After completion of the data collection, a data entry frame was developed in SPSS (Statistical Package for Social Science) program. A codebook was prepared and maintained during data entry. Data was checked and verified for the correction of error. After the entry was completed, analysis was carried out in Statistical Package for the Social Sciences (SPSS) software. Following approaches of analysis were made as per the nature of the study:

- *Univariate analysis:* Generally, univariate analysis is preferred for perception study. In the present study, descriptive statistics was the main tool of analysis where frequencies and percentages were counted in univariate nature. Several options for describing data with univariate analysis approach were used in analyzing the data for the present study including frequency distribution tables, bar charts and pie charts.

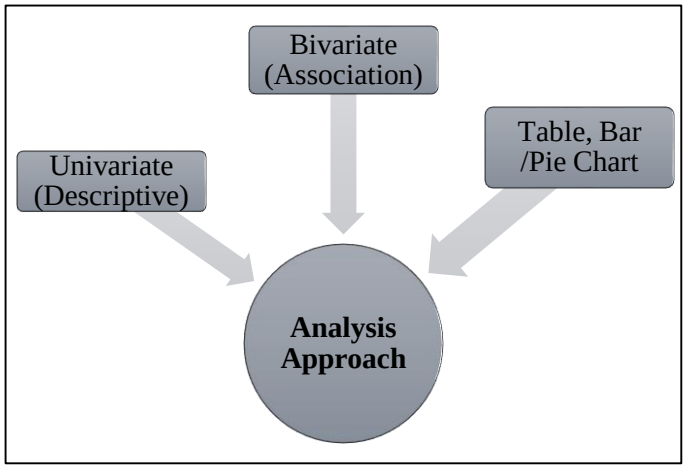


Figure 3.13: Analysis Approach

- *Bivariate analysis:* In this type of analysis, association or relation between two different variables is generally carried out to signify a comparison or relation between the two. In the present study, relation analysis was carried out in the required cases to understand association between two different categories of values through 'cross-tabulation'.

3.4.2. FGD and KII

For conducting FGD and KII, separate guidelines were prepared which contained various points of discussion in line with the study objectives and research questions. Each of the FGD comprised 08-14 participants selected purposively from different category of respondents. Better informed groups of farmers, both the male and female, in terms of their education, income and types of villages were selected for FGD. For conducting KII, the persons having depth understanding and information on various aspects of agriculture and media, particularly TV were selected from both the field/local (village, union, upazila and district) level and central/national (media expert, agriculturist, academic scholar, researcher, senior journalist, *HMOM* planner, producer and presenter; senior *HMOM* team members, agriculture extension expert) level were selected.

FGD and KII Findings Analysis: According to behavioural scientist Gery W. Ryan, theme identification is one of the most fundamental tasks in qualitative research. Maria and Sally-Anne (2012) states that qualitative data analysis should undergo the following steps:

- Data collection and management
- Organising and preparing data
- Coding and describing data
- Conceptualisation, classifying, categorising, identifying themes
- Connecting and interrelating data
- Interpretation, creating explanatory accounts, providing meaning

However, analysis and presentation of the qualitative data depend on the nature of the study, data derived from the qualitative methods and above all the analysis plan of the researcher. In the present study, responses coming out of FGD and KII were clustered according to 'most frequent', 'more frequent', 'frequent' and 'few/rare' responses. Any uncommon statement or comment of the participants/interviewee was noted separately. Name or identity of the participant/interviewee was not disclosed in the report. For clustering the responses emerged from the FGD and KII interaction, 'colour sorting' approach was applied. Use of different colour marked different type of responses in various clusters. The responses were recorded both manually, and automatically with the use of voice recorders. The recorded conversation was made transcript as early as the memory remained fresh. After that, the transcripts were matched with the running hand notes taken on the FGD and KII.

3.4.3. Content Analysis

For content analysis, a format was developed for extracting information from the selected episodes of *HMOM* programme. The format contained information on the length of the episodes, primary and secondary focuses of the episodes and their production techniques. The analysis was carried out based on the analysis keys (mentioned earlier). The data extracted

from the episodes in the format were then classified, connected and interrelated for identifying meaning. Similar type of data were summed up and interpreted together for creating explanatory accounts and meaning.

3.5. Report Writing

After gathering necessary data from all the methods, tabulating, synthesizing and analyzing the data, the report has been prepared. Integration of analysis has been done on the basis of the data gathered from various methods. The qualitative findings derived from FGD, KII and Content Analysis have supplemented analysis of the findings derived from the survey. Thus, a triangular analysis was done to prepare the thesis report.

3.6. Limitations of the Study

There were some limitations in the study which are narrated below:

a. There was no baseline or panel data available so that the impact of the programme on the farmers could be compared.
b. There were no rigorous study on the impact of the programme on the farmers visible which could be a resources for designing the present study.
c. Comparing to the coverage of the programme, the study demands more villages to cover. But, in the study, only 14 villages were covered.
d. In some cases, it was really difficult to find out the expected respondents.
e. The programme was very comprehensive and diversified in nature, so all the aspects of the same were really difficult to consider in the study.
f. Since the study was based on the perception of the farmers, responses were mainly derived from the memory of the farmers rather than documented evidence.

Chapter: Four

Findings

Chapter: Four
Findings

In this chapter, findings from different methods i.e. Content Analysis, Questionnaire Survey, Focus Group Discussion (FGD) and Key Informant Interviews (KII) are presented. The discussion advanced through the presentation of tables, graphs and elaboration of both quantitative and qualitative data as and where felt necessary. The qualitative findings from the FGD and KII complemented to the quantitative data derived from questionnaire survey based on the research questions (RQs). Thus, the findings were carried out to understand the perceptions of the farmers regarding the TV programme *Hridoye Mati O Manush (HMOM*) in sustainable agricultural development of Bangladesh.

4.1. Findings on Content Analysis (*HMOM)*

This part has been written based on the content analysis of the *HMOM* programme. Two approaches were followed to analyze the selected episodes of *HMOM* in order to understand the tendency, thematic focus and quality of the programme.

a. studying the programmes from the general perspective, and
b. intensive analysis of the selected episodes focusing on specific subjects of agriculture

4.1. a. General Perspectives: Macro Lens

HMOM, an agro-based TV documentary, is perceived as one of the most popular and widely viewed programs in Bangladesh. This program is broadcast on *Channel i,* one of the leading satellite TV channels in Bangladesh under the planning, direction, production and anchoring of Shykh Seraj who started his career in this field in 1978. It is thought that agriculture and other development issues became a part of prime

Figure 4.1.1: Logo of *HMOM*

time news in different TV channels after Seraj's endeavors with agricultural reporting for a long time.

HMOM is a development program comprising agriculture related news and features. The prime objective of this program is to facilitate the farmers with hands-on knowledge evolving wide range of agricultural areas. Some of the contents of the program are animal husbandry, fishery, poultry raising, crop production, marketing, bio-fertilizers, insecticide, food security, forestry, disaster resilient cropping systems etc. Along with these regular 'agro-info-based' programmes, Seraj introduced some contents focusing on the farmers' thought on national budget, farmers' *Eid* celebration, farmers' *Boishakh* celebration, farmers' health, revisiting to the roots, farmers' world cup etc. where the farmers participate with enthusiasm. These programmes are the platforms for the farmers to share their skills, needs and expectations. One of the unique features of *HMOM* is the inclusion of the young students into its various episodes where they interact with the farmers and work at the farm fields following the instructions of the farmers.

Figure 4.1.2: *HMOM* presenter Shykh Seraj interviewing a farmer

A visible aspect of *HMOM* programme is its anchor himself who initiated a different communication style using a special type of language which is neither standard nor colloquial. It is rather communicative with the farmers of all the regions of the country. His *duashla (mixed of standard and* colloquial) language, its pronunciation and way of delivery draw attention of the farmers irrespective of their socio-economic differences.

During interaction with the farmers at the field, he is always seen wearing an 'olive-coloured' shirt which depicts the nature of Bangladesh and a 'brown-coloured' trouser portraying the soil of the country. He appears on the screen with similar dress-up which has given him a distinct identity among the audience. Most of the farmers think that Shykh Seraj possesses only a set

of olive coloured shirt and a muddy coloured pant (trouser). This simplicity has oriented him differently with the farmers who took him as their near and dear one according to the opinions of most of the respondents taking part in the Focus Group Discussions (FGD) and the Key Information Interviewees (KIIs).

Being alike in dress-up with the farmers facilitates him to mix with them easily and build rapport since the distance between the mass communicator and the audience is lessened. He, sometimes, is seen stepping into water-covered farmland to interact with the farmers by folding his trouser up to knee-role. He is never found to stop the farmers from doing their activities while talking and interviewing. These are some of the distinct features of Seraj's approach to producing *HMOM*. The programme started ahead of the International Mother Language Day in 2004 on *Channel i* and more than 600 episodes of the same have been telecast by this time.

4.1. a.1. Characteristics of the Episodes Telecast under *HMOM* Brand

The episodes under the programme contain the following aspects of agriculture according to Shahin (2016):

i. Success of agriculture and farmers
ii. Crop diversification
iii. Unveiling barriers to agro-markets and way forwards to establish farmers' friendly markets
iv. Preserving soil health and promoting organic agriculture
v. Dissemination of the agricultural innovations and the latest agro-technologies
vi. Drawing attention of the government to develop rural infrastructure
vii. Facilitating the farmers to grow high-valued crops
viii. Organizing the farmers by disseminating agro-information and education
ix. Presenting farming experiences and the best practices of the developed countries and orienting the Bangladesh farmers on the same

x. Identifying the barriers to the exporting of agro-products of the country and finding out solutions through drawing attention of the relevant authorities

xi. Presenting the values of the agriculture through the ICT so that the people can have necessary information and instruction on agricultural practices

xii. Making the farmers aware of their rights and promoting their empowerment

xiii. Motivating the urban people towards agricultural activities

xiv. Reintroducing the youths with rural culture and heritage so that they do not forget their roots

xv. Emphasizing on the agricultural extension systems to be more people-centered

xvi. Motivating the print and electronic media towards agricultural coverage

xvii. Motivating the journalists towards paying attention on the agricultural journalism

4.1. a.2. Diversified *HMOM*

There are a number of programmes being covered on agriculture under the *HMOM* programme of which some of the major ones include:

4.1. a.2. 1. Regular *HMOM*

Regular *HMOM* programme generally covers core-agricultural and farm-based activities. Diversified issues of agricultural innovations, themes, problems, prospects, success stories, new varieties, high value crops etc. are presented in the programme.

Figure 4.1.3: The presenter interviewing the female farmers in the farm field

The programme telecasts a variety of agricultural practices on paddy and food grain cultivation, cash crop production, vegetables cultivation, live asset rearing, fruits and flower cultivation, fishery, techniques of producing

bio-fertilizers, environment, disaster resilient crop production and climate change, production of bio-fertilizers and their uses, experience sharing, integrated pest management, agricultural exchange between local and foreign agricultural practices, and agricultural innovations.

4.1. a.2. 2. Thematic *HMOM*

***Krishi* (Agricultural) Budget, *Krishoker* (Farmer's) Budget:** This is a pre-budget open field dialogue session between thousands of farmers and policy makers facilitated by Shykh Seraj. The key interactions between the farmers and the policy makers are covered live on the *Channel i.* It is a programme aimed at empowering the farmers by facilitating their voices in the national budget, especially in the budgetary allocation for the agricultural sectors. In this programme, the farmer's expectation and opinions are presented to the policy makers so that their issues are incorporated in the national budget. This programme was launched in 2005 and by this time a total of 45 such programmes were covered in 35 districts of the country (Shaheen: 2016, p. 5).

Figure 4.1.4: Dialogue in a farmer's budget programme

In such type of programmes, ministers, policy makers, law makers, economist, editors, civil society members, local administration, representatives from different agro-related service providers of the government offices are invited to interact with the farmers. About three lacs of the farmers from the aforesaid districts took part in those programmes. The outcomes of the programmes –felt needs, claims and the proposals of the farmers derived from the field level interactions are later submitted to the Finance Minister and other relevant authorities in a printed report. In the light of the farmers' successes and crises, recommendations in favour of agriculture and the farmers are presented. The policy makers of the government are

strategically influenced due to this initiative. For example, the analysis of episode number 338 (honey production and crisis telecast on 08.01.2011) shows that the then governor of Bangladesh Bank was invited to interact face to face with the farmers especially with the honey cultivators in one of the farmer's budget programme. In the programme dialogue, the governor assured the honey cultivators of providing with necessary facilities of bank loan and including the issue in the National Agriculture Policy. Later, in 2013, the issue was incorporated in the agriculture policy which has paved the way for the honey cultivators to get bank loans. The governor also stated that he did not know about the issues of the honey cultivators before attending the *Channeli* programme on the farmer's budget.

The programme is generally carried out in a dialogic manner where the farmers function as the source of communication besides the elite policy makers. Such interactions create platforms of mutual understanding between the farmers and the policy makers. In Bangladesh, the rural people like the farmers are not usually covered by the urban-centric media mostly owned by the corporate and political elites. The corporate run media are found to cover their elite agenda while the state-run media emphasizes on the government, bureaucrats and the political party in power. The overwhelming majority, the common people seldom enjoy to present their voices through the corporate media. Thus, the information flow in the mainstream media in Bangladesh is mostly monologic (Islam: 2016, Ferdous: 2009).

***Krishoker Eid Anando* (Farmer's Eid Delights):** This programme depicts cultural heritage of rural Bangladesh on the occasion of *Eid*, the largest religious festival of the Muslims. Different types of events portraying the rural cultures related to the ability and interests of the farmers are presented around the *Eid* vacation. The best performing farmers are honoured with prizes. A few of the key events of the programme include the pillow contest on the river, ploughing with tractors, riding on the slippery banana trees, making up of the spouses, joint arrangement of materials (catching fish, cutting the same, preparing spicy and proceeding for cooking) and cooking etc. which are a great source of pleasures and delights for the audiences of all walks of life. This entertainment programme ensures the intensive participation of the farmers. This entertainment programme has been produced since 2006 and by this time farmer's *eid* delights have been held 21 times.

Figure 4.1.5: The presenter hosting the 'Farmers' Eid Delights' programme

***Krishoker (*farmers'*) Boishakhi* (first day of a Bangla New Year*) Anando (*delights):** This programme is arranged on the occasion of *Pahela Boishakh* (the first day of Bangla New Year). In the programme, farmers actively participate in various cultural events and perform in line with the age-old rural traditions.

***Krishoker Biswacup* (Farmers' World Cup)**: To facilitate participation of the farmers in the sports, some events are arranged especially on the occasions of the World Cup Football and the World Cup Cricket. In these programmes, farmers being divided into groups, participate in

the sports wearing the uniforms of their favourite teams. These programmes greatly attract the farmers and the people from all walks of life.

Firey Cholo Matir Taney **(Revisiting to Roots)**: This is a practical learning session for the urban university students at the grassroots level who were previously far away from the agricultural activities. This programme has been initiated since 2011. The students born and brought up in the cities participate in the programme. This programme facilitates the urban university students to visit the farmlands, turn into farmers, learn farming, live and eat like the farmers. Touch of the soil and the crops as well as close interaction with the farmers make them thinking and rebuilding of their life and career. Everything is telecast in the programme which is inspiring to other students too.

Krishoker Shasthya **(Farmer's Health)**: Initiated in 2007, this programme was held in 30 different places of the country with a view to making the farmers aware of their health issues. The programme depicts the measures to be taken while working in the burning sun and in the rain. As a result of the programme, various health service providers initiated to provide the farmers with necessary health services. In addition, the farmers are provided with occupational health services from the programme.

Firey Cholo Matir Taney **(Revisiting to Roots)-junior:** It is an initiative of introducing the students of the English medium school of Dhaka city with the rural agricultural systems. Since

2011, several hundred students of different reputed English schools of Dhaka city planted and cropped potatoes in three seasons. They have become the little ambassadors of agriculture among other students. Both the programmes orient the city youths, the students, with the art and culture of agricultural activities. The students can realize the hard labour, risks, challenges and the ceaseless struggles of the farmers. Thus, this programme serves one of the major functions of mass media to transmit agricultural heritage from one generation to another as per the view of Harold D. Lasswell (1948).

Figure 4.1.6: School students being briefed in the 'Revisiting to Roots' programme

4.1.b. Discussion of Findings on Selected Episodes: Micro Lens

Total length of the selected 26 episodes of *HMOM* programme was about 11 hours excluding advertisement (Appendix One, Content Analysis Format 04). In 04 episodes, there were some advertisements while 22 episodes had no any advertisement. Detailed of the content analysis has been presented below:

4.1.b.1. Script

The content analysis show that the scripts of the programme were of mainly two types:

a. Presenter/director designed script

b. Unstructured script

The major part of the script of a programme was designed by the programme designer where the script was found structured. The unstructured scripts included the heterogeneous sources who were interviewed in the programme. The scripts of the selected programmes were found

consistent with information. All the programmes were focused on the respective subjects of presentation (Appendix One, Content Analysis Format 02).

4.1.b. 2. Narration

Narration of the programmes was considered on the basis of use of simple sentence, use of jargon and easiness to understand the script. All the programmes undergoing the content analysis were presented in the simple sentences, mostly devoid of using difficult jargon. The narration was easy to understand since they were mostly devoid of long and complex sentence. However, in one of the programmes (Episode: 09, subject: paddy cultivation), some jargons and difficult English words were used both in the structured and unstructured scripts. For example, 'interested', 'cash crop', 'fruit belt', 'hector' and 'sector' were used in the structured script while 'demonstrate', 'contributions', 'state', 'private sector' were used in the unstructured scripts. Due to lower level of educational qualification, most of the farmers are not oriented with these words (Appendix One, Content Analysis Format 02).

4.1.b. 3. Visual

All the programmes began with the setting of the context at the beginning and at the initial slot; a view of the programme topic was established. Visual mix and quality i.e. combination of various shots, light, focus, camera positioning and framing were found properly carried out. Position of camera did not shake or blur in any shots taken and projected on the screen. Visualizations were full of actions which created meaning and denoted some activities (Appendix One, Content Analysis Format 02).

4.1.b.4. Sequence

All the stories presented in the programmes developed stage by stage and transition from one shot to another, one aspect to other was found smooth. Nothing appeared unexpectedly or suddenly. All the sequences held the story together in all the episodes (Appendix One, Content Analysis Format 02).

4.1.b. 5. Synchronization

It revealed that there were synchronization between audio and visual. Every narration matched with the scene projected in the selected episodes (Appendix One, Content Analysis Format 02).

4.1.b.6. Clarity

In the content analysis of the selected programmes, clarity was viewed in terms of information, purpose and sources. The content analysis revealed that the information presented was clear and the source was also clear since the sources' identity was properly shown in the programmes. Thus, the clarity of purpose of the report was evident in all the programmes undergoing the content analysis (Appendix One, Content Analysis Format 03).

4.1.b.7. Credibility

In the content analysis, credibility was measured in terms of authenticity of the source, knowledge of the source and status/position of the source. It revealed that all the sources were presented and interviewed in the episodes clearly. Selection of the sources was also a matter to note. The selection of the sources was found to be considered on the basis of the information, understanding, knowledge and expertise. Appropriate persons were chosen for the interviews and analysis on a particular topic (Appendix One, Content Analysis Format 03). For example, experts or officials having expertise and knowledge on the fishery were selected to talk on the episode focusing fishery. Similarly, the persons having knowledge on agriculture, particularly on the paddy production were selected for interviewing on the paddy production. In various episodes of the 'Farmer's Budget, Agricultural Budget' programme, the high policy makers like, the Finance Minister, Food Minister, ICT Minister, Governor of Bangladesh Bank, MPs, DCs, UNOs were present to share the government activities and attitudes towards agriculture sector. The farmers were found enthusiastic taking part in the face-to-face dialogue with the ministers and high government officials. All these contributed to the credibility of the programme.

4.1.b.2.8. Interview

In the content analysis, the interviews used in the episodes were analyzed considering the following aspects:

a. Rapport between interviewer and interviewee
b. Whether the interviewee was well guided
c. Whether interviewee was ready or well prepared

In the selected episodes, rapport between the interviewer and the interviewee was found. The interviewees were briefed and guided by the interviewer. But in a few episodes i.e. episode no. 144 (bio-fertilizers), 568 (cow fattening) and 229 (artificial insemination); few of the interviewees, particularly the experts and the officials seemed lacking appropriate preparation for interviewing. There were some lapses in presenting the fact in easy and communicative languages since in some cases English words were used. In a few cases, the interviews seemed somewhat boring (Appendix One, Content Analysis Format 03).

4.1.b.9. Participation

'Participation' meant in the content analysis whether the targeted farmers had opportunity to talk, number of farmers interviewed and their participation was hands on. Considering these factors, the content analysis reveals that all the selected episodes were participatory where more than one farmer had participated in the interviews or interaction on average. The programme covered the field tasks of the farmers as much as possible, for example, the presenter asked the working farmers about their activities in hands on manner (Appendix One, Content Analysis Format 03).

4.1.b.10. Information quality

Quality of information was viewed in terms of completeness of information, easiness to use the information and appropriateness/utility of the information furnished in the episodes. Most of the programmes' information quality was very good while in a few of the cases, experts put information in the way that was not easy for the farmers to comprehend (Appendix One, Content Analysis Format 03).

4.1.b.11. Presentation style

Presentation style was analyzed based on the friendly style, emphatic and interpersonal skills (gesture and body language) of the producer cum presenter of the programme. In all the analyzed episodes, the presenter interacted with the farmers in the friendly manner. He used to laugh, gossip and mix with the farmers deeply. His gesture and body language were appealing for the farmers. Such interaction style lessened the distance between the producer cum presenter, and the farmers (Appendix One, Content Analysis Format 03).

4.1.b.12. Projection of Male and Female Farmers, and the Experts

The projection of the male farmers was higher than those of the female farmers. Out of the total episodes, female farmers were portrayed 142 times in 21 episodes. It seemed that the female farmers were portrayed in all the relevant areas as and where necessary. Out of the 21 episodes portraying the female farmers, 06 episodes portrayed them as the primary (main) focus with necessary interviews and importance. A few episodes were produced fully focusing on the female's contribution to agriculture. For example, the episodes on the rooftop agriculture and the vermin compost production were based on the activities of the female farmers. Of the remaining ones, female farmers were portrayed as both the main and associate farmers in 03 episodes while in 12 episodes, the female farmers were shown as the associate farmers meaning the secondary focus (Appendix One, Content Analysis Format 06).

Of 26 episodes, male farmers were projected 205 times in 23 episodes with the total length of more than three hours. In 06 episodes, the entrepreneurs were targeted while in 03 episodes the rich farmers were targeted, in 06 episodes the marginalized farmers were targeted. Of the remaining 22 episodes, one projected entrepreneur and rich farmer while two targeted entrepreneur and marginal farmers. The extreme remaining 05 episodes portrayed all types of farmers mentioned above. It is to note here that the entrepreneurs included mostly the initiators of an agro-production and business while exceptionally someone was completely the innovator of a social movement surrounding agriculture without any profit or loss. For example, in the

episode 67 on the 'Tree Plantation by Kartik Poramanik', Mr. Kartik was the initiator of a social movement of tree plantation, who was considered here as an entrepreneur. Out of the 22 episodes, the farmers were interviewed in 19 episodes meaning that the programme concentrated highly on capturing the farmer's opinion and views (Appendix One, Content Analysis Format 04).

The experts were projected 58 times in 17 episodes containing 59 minutes. Among 17 episodes, the experts were interviewed in eight episodes at the farm fields while in the six episodes the experts were interviewed in their offices and in the remaining three episodes, the experts were interviewed in both the farm fields and in their offices. In consultation with the experts from the key informant interviewees as well as the supervisor, the expert's interviews projected in the aforesaid episodes were rated as 'very good', 'good' and 'average'. Hence, in terms of quality of information and their utility, the expert's interviews were rated as 'very good' in 12 episodes while in 03 episodes, it was rated as 'good' and in the remaining ones, the interviews were 'average' (Appendix One, Content Analysis Format 05).

The aforesaid analysis shows that the *HMOM* programme considered the active participation of both the male and female farmers as well as the experts from the relevant fields. The projection of the male and female farmers in the episodes can be linked with the findings derived from Focus Group Discussion (FGD) and Key Informant Interviews (KII). According to most of the responses of the KII and FGD participants, the female farmers were mostly engaged in home-around agricultural activities. Their contribution in the process of entire agricultural activities is significant, even higher than those of the male farmers in many cases. But, due to male dominance in agricultural activities, female's voices were not much heard or projected in the TV media in general. The *HMOM* presenter, also one of the Key Informant Interviewees, stated that the presence of the female farmers was comparatively little in the programme at the initial stage due to conservative rural culture, male dominance and *purdah* system. However, at present, the notion is being changed, the female farmers are getting

interested to be projected and the *HMOM* is capturing more success stories of the female farmers.

The analysis shows that the farmers got priority in the episodes than those of the experts, and thus, the programme was turned into farmers demand-driven. One of the significant aspects is that the experts were taken into the farm fields for interviewing. For this approach, the farmers working in the fields could meet the experts and interact with them on various issues of crop production. Besides, the farmers could be introduced with the experts since they were mostly from different government agro-based offices at the Upazila and Zilla (sub-district and district) level. In this way, a rapport was also built-up between the farmers and the agricultural officers through the interventions of the programme.

4.2. Findings Based on the Research Questions (RQ)

In this section, findings derived from questionnaire survey along with the qualitative findings from the Focus Group Discussion (FGD) and Key Informant Interviews (KII) have been presented against the designed research questions (RQ). The findings revealed from the questionnaire survey were complemented with the views, opinions, experiences and statements of the respondents undergoing FGD and KII. The designed research questions (RQs) included:

1. To what extent do the farmers receive agricultural information from the TV programme '*Hridoye Mati O Manush (HMOM)*'?
2. What is the tendency of using agricultural information received from the programme?
3. What are the benefits of using agricultural information that received from the programme?
4. How is the perception of the farmers on the design of the programme?
5. How is the perception of the farmers on the programme's contribution to the sustainable agricultural development of Bangladesh?
6. How is the impact of the programme in changing agricultural practice of the farmers?

The findings are presented under each of these research questions:

Findings on Research Question (RQ) 01:

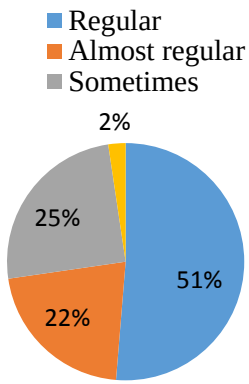
To what extent do the farmers receive agricultural information from the TV programme *Hridoye Mati O Manush (HMOM)*?

This research question covered responses of the farmers on their exposure to *HMOM;* what they could recall and learn; access to agricultural information; areas of agricultural information and satisfaction with the information. The findings related to these aspects are presented below:

4.2.1. 1. Farmer's Exposure to *HMOM* Programme

The findings show that more than half (51 percent) of the respondents were the 'regular' viewers of the programme. One-fourth of total respondents watched the programme 'sometimes' and 22 percent respondents watched that 'almost regular'. The least percentage of the respondents was the occasional viewers of the programme (Figure 4.2.1.1).

Figure 4.2.1.1 : Percentage of the respondents on their exposure level of *HMOM*



4.2.1.2. Place of Exposure to *HMOM*

The respondents had multiple-answer options as the places of watching *HMOM.* A total of 553 responses came out of the questionnaire survey of which more than three-fourths (75.5 percent) mentioned 'own home' as the place of watching the programme. 'Neighbour's home' stood the second with 21 percent responses while 'Bazar' and 'Tea stall/other shops' stood sequentially with 19 and 14 per cent responses (Table 4.2.1.i).

Table 4.2.1.i- Frequency and percentage of the respondents replying on the place of watching *HMOM*

Place	Frequency (N)	Percent (%)
Own home	321	75.5
Neighbour's home	89	21
Bazar	81	19
Tea stall/other shops	60	14
Others	2	0.5
Total	553	130
* Note: Due to multiple choices, the total percentage became more than 100.		

4.2.1.3. Retention of the Programme and Learning from that

4.2.1.3.a. Retention

In this question, among several opinions, the first retention of the respondents was prioritized. Diversified subjects of agricultural activities and issues were found from the responses. A total of 24 specific areas of agricultural activities and issues were presented (Table 4.2.1.ii) and a few other subjects of retention were presented in the 'miscellaneous' part. Among them, top ten subjects of retention were considered for discussion.

The top ten subjects of retention included : paddy cultivation techniques by 13.4 percent, vegetables' production and fishery by six percent each; wheat, maize, nursery and tree plantation, and farmer's budget each by five percent; jute cultivation techniques by about six percent; live assets (poultry and cattle) and fruits production by four percent each.

Table 4.2.1.ii - Frequency and percentage of the respondents' retention of *HMOM*

	Subjects	**Frequency (N)**	**Percent (%)**
i.	Paddy cultivation techniques	57	13.4
ii.	Wheat cultivation techniques	21	5
iii.	Maize cultivation techniques	21	5
iv.	Vegetables cultivation	26	6.2
v.	Fruits production	17	3.9
vi.	Jute cultivation techniques	24	5.6
vii.	Nursery and tree plantation	21	5
viii.	Fishery	26	6
ix.	Live assets (poultry and cattle)	17	4.1
x.	Farmer's budget	22	5 .2
xi.	Rooftop gardening	11	2.5
xii.	Farmer's entertainments (eid-delights, sports etc. of the farmers)	13	3.1
xiii.	Techniques of producing and using bio-fertilizers	12	2.8
xiv.	Combined system of agriculture	13	3.1
xv.	Farmer's health care	8	1.9
xvi.	Foreign agricultural activities	10	2.4
xvii.	New and innovative agriculture and its benefits	10	2.4
xviii.	Students' participation in agricultural activities	17	4
xix.	Crop markets	8	1.9
xx.	New agricultural equipment	6	1.4
xxi.	Innovative agricultural activities	9	2.2
xxii.	Disaster resilient crop	13	3
xxiii.	Proper use of pesticides and integrated pest management	15	3.4
xxiv.	Preservation and use of seeds	11	2.5
xxv.	Miscellaneous (irrigation, natural way of pest control, *jhum* farming, honey, flower cultivation, crops rotation and season, bad effects of chemical fertilizers, cooperative farming, etc.)	17	4.0
	Total	425	100.0

4.2.1.3. b. Learning from the programme

Of the total respondents, almost all (94 percent) told that they had learned about different aspects of agriculture from *HMOM*. Two percent respondents did not learn anything from that while four percent respondents did not respond (Table 4.2.1.iii).

Table 4. 2.1. iii - Frequency and percentage of the respondents' learning from *HMOM*

Responses	Frequency (N)	Percent (%)
Yes	398	93.6
No	10	2.4
No response	17	4
Total	425	100.0

4.2.1. 3. c. Subjects of learning

About 'learning from the programme', the respondents gave multiple responses in open-ended manner. The first answer about their learning was considered and a total 21 subjects of learning from *HMOM* came out. The top ten subjects of learning included: techniques of cultivating food grains (i.e. paddy, wheat, maize etc.) by 18 percent respondents; techniques of rearing live assets (poultry and cattle) by 6 percent, fish cultivation by 5.6 percent, fruits production techniques i.e. strawberry, *Kazi peyara* (guava), mango, litchi, dragon fruits, coconut etc.) by 5.5 percent, vegetables cultivation techniques by 5 percent; nursery and tree plantation by 4.6 percent, combined system of agriculture by 4.5 percent, controlling of pests in natural way by 4 percent, new agricultural equipment and technology by 3.5 percent, and techniques of producing and using bio-fertilizers by 3.5 percent respondents which included 60 percent of the respondents. Of the remaining 40 percent responses, 33.4 percent included the subjects of learning on irrigation systems, jute cultivation techniques, value of farmer's opinion in the national budget, farmer's health care, techniques of foreign agricultural activities, multi-dimensional agriculture and its benefits, crop markets, innovative agricultural activities, disaster resilient crop, preservation and use of seeds, *jhum* farming, honey cultivation, cooperative farming, flowers, crops season and rotation. Some of the farmers, 6.6 percent, did not response on the same (Table 4.2.1.iv).

Table 4.2.1.iv - Frequency and percentage of the respondents learning of agricultural subjects from *HMOM*

	Subjects	**Frequency (N)**	**Percent (%)**
i.	Techniques of cultivating food grains i.e. paddy, wheat, maize etc.	78	18. 3
ii.	Techniques of rearing live assets (poultry and cattle)	25	5.8
iii.	Fish cultivation	24	5.6
iv.	Fruits production techniques i.e. strawberry, *Kazi payera* (guava), mango, litchi, dragon fruits, coconut etc.)	23	5.5
v.	Vegetables cultivation techniques	21	5
vi.	Nursery and tree plantation	20	4.6
vii.	Combined system of agriculture	19	4.5
viii.	Controlling of pests in natural way	16	3.9
ix.	New agricultural equipment and technology	15	3.5
x.	Techniques of producing and using bio-fertilizers	15	3.5
xi.	Jute cultivation techniques	11	2.6
xii.	Value of farmer's opinion in the national budget	10	2.5
xiii.	Farmer's health care	8	1.9
xiv.	Techniques of foreign agricultural activities	13	3
xv.	Multi-dimensional agriculture and its benefits	11	2.5
xvi.	Crop markets	12	2.8
xvii.	Innovative agricultural activities	10	2.3
xviii.	Disaster resilient crop	11	2.7
xix.	Proper use of pesticides and integrated pest management	10	2.4
xx.	Preservation and use of seeds	6	1.4
xxi.	Irrigation systems	13	3.1
xxii.	Miscellaneous (*Jhum* farming, honey cultivation, cooperative farming, flowers, crops season and rotation etc.)	26	6.0
xxiii.	No response	28	6.6
	Total	425	100

4.2.1.4. Farmer's Access to Agricultural Information

Of the total respondents, 97 percent reportedly got necessary agricultural information from *HMOM* programme. Among the remaining ones, 1.4 percent respondents did not get necessary information while 1.6 percent did not respond (Table 4.2.1.v).

Table 4.2.1.v – Frequency and percentage of the respondents receiving agricultural information from *HMOM*

Response	Frequency (N)	Percent (%)
Got necessary agricultural information	412	97
Did not get	6	1.4
No response	7	1.6
Total	425	100.0

4.2.1.4.a. Areas of agricultural information received

With a view to understanding the areas of agricultural activities in which the farmers got information from *HMOM* programme, multiple responses were considered. A total of 32 agricultural fields were mentioned by the respondents and a total of 3203 responses came out. Top ten areas of receiving agricultural information fed 2151 responses that included: (i) techniques of growing food grains (seeds, seedlings and planting, caring and cutting crops/process of threshing, etc.) by 78.6 percent respondents; (ii) techniques of growing cash crops (jute, flowers, nursery, fruit, process of growing vegetables) by 68 percent; (iii) livestock (cattle) rearing by 65 percent; (iv) fishery by 58 percent; (v) poultry farms by about 53 percent; (vi) crop's season by 50 percent; (vii) proper use of pesticides and integrated pest management by 41.5 percent; (viii) techniques of producing and using bio-fertilizers by 41.5 percent; (ix) bad effects of harmful chemicals in farming by 38 percent; and (x) use of technology in farming by 28.6 percent (Table 4.2.1.vi).

The remaining 1052 responses were on the value of farmer's opinion in the national budget, combined system of agriculture, farmer's health care, techniques of foreign agricultural activities, new and innovative agriculture and its benefits, crop markets, agricultural equipment and technology, disaster resilient crop, proper use of pesticides and integrated pest management, preservation and use of seeds, irrigation systems, controlling of pests in natural way, *jhum* farming, honey cultivation, cooperative farming, flowers, government's agricultural services at upazila and union level, menace of intermediaries, food security, aviculture etc.

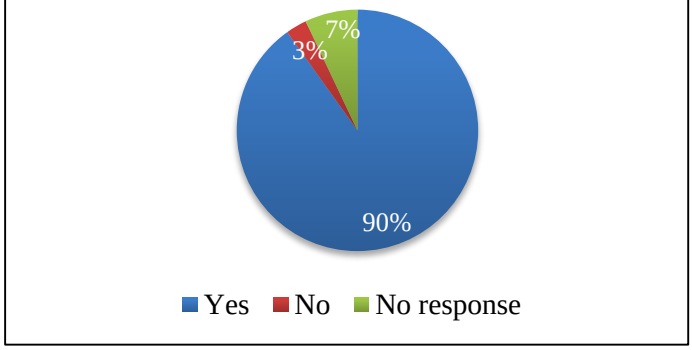
Table 4.2.1.vi - Frequency and percentage of the responses on getting information in top ten areas of agriculture

Subjects of agricultural information		**Frequency (N)**	**Percent (%)**
i.	Techniques of cultivating food grains (paddy, wheat, maize etc.)	324	78.6
ii.	Techniques of cultivating cash crops (jute, nursery, fruits, process of growing vegetables etc.)	281	68.2
iii.	Livestock (cattle) rearing	267	64.8
iv.	Fishery	240	58.3
v.	Poultry farms	217	52.7
vi.	Crop's season and rotation	205	49.8
vii.	Proper use of pesticides and integrated pest management	171	41.5
viii.	Techniques of producing and using organic/bio-fertilizers	171	41.5
ix.	Bad effects of harmful chemical fertilizers in farming	157	38.1
x.	Use of technology in farming	118	28.6
	Total	2151	522.5
Note: Due to multiple responses, percentage became more than 100			

4.2.1.4. b. Addressing information needs and farmer's satisfaction

The highest percentage (90) of the respondents told that their information needs on various aspects of agriculture were fulfilled from the programme. Three percent of the respondents opined negatively and seven percent did not respond (Figure 4.2.1.2).

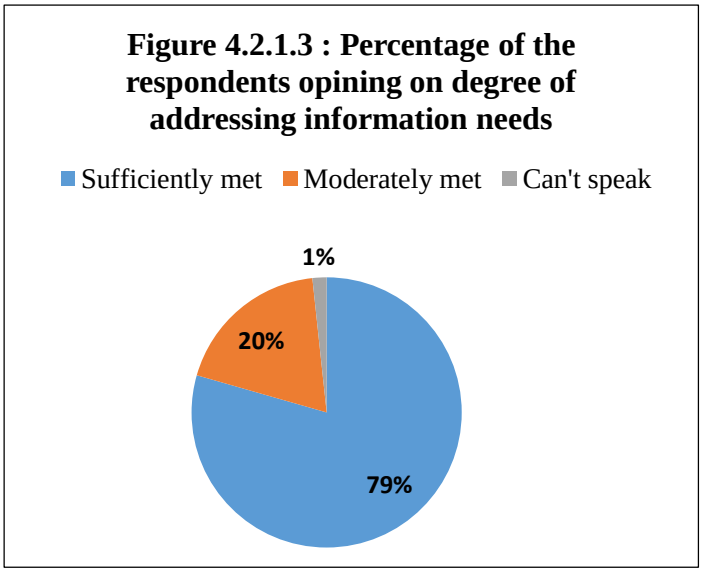
Figure 4.2.1.2 : Percentage of the respondents opining on addressing their information needs



4.2.1.4.c. Degree of addressing information needs

Regarding fulfillment of information needs on agriculture from the programme, about fourth-fifths of the respondents (79 percent) mentioned that their needs were sufficiently addressed. The percentage for the respondents opining 'moderately addressed' was about 20 and one percent respondents did not respond on the same (Figure 4.2.1.3).

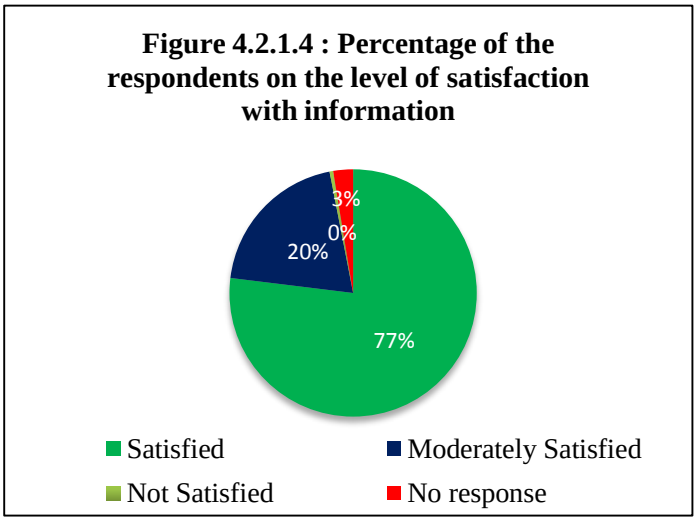
Figure 4.2.1.3 : Percentage of the respondents opining on degree of addressing information needs



4.2.1.4.d. Satisfaction of the farmers

On the satisfaction with the agricultural information availed from the programme, 77 percent of the respondents opined that they were 'satisfied'. One-fifth of the respondents told that they were 'moderately satisfied' while the percentage for 'not satisfied' and 'no response' was 0.5 and 2.5 percent respectively (Figure 4.2.1.4).

Figure 4.2.1.4 : Percentage of the respondents on the level of satisfaction with information



4.2.1.4.e. Further information needs

The FGD findings revealed the further information needs of the farmers on different aspects of agriculture. The 'most' and 'more' frequent responses coming from the FGDs on information needs are presented in the table 4.2.1.vii.

Table 4.2.1.vii - Top ten responses on further information needs on agriculture

	Areas where the farmers need further information
i.	Different aspects of innovative agricultural activities
ii.	Information about the crop market and appropriate price of the agro-products
iii.	Proper use of pesticides and chemical fertilizers proportionately with land mass
iv.	Techniques of growing crops/high yield crops at the lowest cost
v.	Proper feeding and taking care of the live assets poultry and cattle
vi.	Cultivation of new varieties of fruits
vii.	Production techniques and use of organic/bio-fertilizers
viii.	Information technology in agriculture
ix.	*Jhum* cultivation techniques
x.	Source and procedure of agricultural loans on soft condition

Apart from these needs of agricultural information, the FGD discussants also mentioned some other topics including fish farming, growing vegetables, pest control methods for variety of crops, government agricultural services, disaster resilient crops, profitable crops in the droughts, floods and salinity, ginger cultivation, tea plantation, applying the new methods of jute production etc. on which they need more information.

Findings on Research Question (RQ) 02:

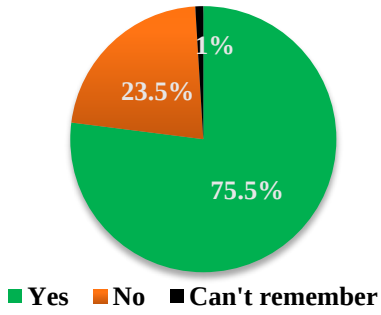
What is the tendency of using agricultural information received from the programme?

This research question covered responses of the farmers on their use of agricultural information received from the programme; reasons for using the information; and the influence of the opinion leaders in the process of using information. The findings related to these aspects are presented below:

4.2.2.1. Use of Agricultural Information

More than three-fourths of the respondents (N=321) used agricultural information availed from the programme while 23.5 percent of the farmers did not use information. The remaining one percent respondent could not remember whether they used agricultural information or not (Figure 4.2.2.1).

Figure 4.2.2.1 - Percentage of the respondents opining on the use of agricultural information from *HMOM*



4.2. 2.1. a. Areas of using agricultural information

A total of 2033 responses came out of the multiple responses on diversified areas of agriculture where the respondents used information availed from the programme. The responses were tabled under 20 specific agricultural areas and top ten areas of using information by the farmers were taken for discussion: (i) In food grains (paddy, wheat, maize etc.) production by 99.3 percent, (ii). Knowing, buying and applying appropriate fertilizers and pesticides by 60.6 percent, (iii) In livestock rearing by 58 percent, (iv) In preservation of seeds by 56.2 percent, (v) Cash crops (jute, flowers, nursery, fruits, process of growing vegetables etc. by 51 percent (vi) Producing and using the bio-fertilizers by 45 percent (vii) In fish cultivation by 44 percent (viii) Poultry farming by 41 percent and (ix) Irrigation by 31 percent (x) In food security by 22 percent (Table 4.2. 2.i).

Table 4.2.2.i: Frequency and percentage of the responses on the areas of using agricultural information from *HMOM*

S/N	Areas/Subjects of agricultural information	Frequency (N)	Percent (%)
i.	In food grains (paddy, wheat, maize etc.) production	316	99.3
ii.	Knowing, buying and using proper fertilizers and pesticides	195	60.6
iii.	In livestock rearing	186	57.8
iv.	In preservation of seeds	179	56.2
v.	Cash crops (Jute, flowers, nursery, fruits, process of growing vegetables etc.)	164	50.9
vi.	Producing and using the bio-fertilizers	144	44.7
vii.	In fish cultivation	142	44.1
viii.	In poultry farming	132	41.0
ix.	Irrigation	100	31.1
x.	In food security	71	22.0
xi.	In communicating with the government officials	43	13.4
xii.	Growing the disaster resilient crop farming	46	14.3
xiii.	Combine agriculture	48	14.9
xiv.	To receive the agricultural services from the government	24	7.5
xv.	Buying-selling the agricultural products	44	13.7
xvi.	Farming without causing harm to the environment (like without cutting trees, not filling the water-bodies)	24	7.5
xvii.	In the use of modern equipment in farming	66	20.5
xviii.	In pest-management	43	13.4
xix.	In caring about the farmers health	26	8.1
xx.	Others:	40	12.5
	Total	**2033**	**633.2 ***
* Note: Because of multiple choices, total percentage distribution became more than 100.			

4. 2. 2.1. b. Reasons for 'using' or 'not using' information:

Reasons for 'using' information: Five reasons were revealed from a total 780 responses from multiple options chosen by the respondents on what facilitated them to use the information. 'Presentation style of the programme presenter' stood top with 77 percent responses while

'success stories of other farmers' stood second with 61 percent responses. 'Presenting the use of modern equipment in agriculture' stood third with 26 percent while 'information on new crops' and 'possibility of being benefited' stood fourth and fifth with 38percent and 42 percent respectively (Table 4.2.2.ii).

Table 4.2.2. ii. - Frequency and percentage of the respondents stating reasons for using information

S/N	Reasons for using information	Frequency (N)	Percent (%)
i.	Being motivated with success stories of other farmers	194	60.8
ii.	Information on new crops production	123	38.6
iii.	Presenting the use of modern equipment in agriculture	83	26.0
iv.	Possibility to be benefited from using information	134	42.0
v.	Presentation style of the programme presenter	246	77.1
	Total	780	244.5 *
* Note: Due to multiple responses, percentage became more than 100.			

The frequent responses from FGD regarding this aspect revealed that the programme presenter has developed a unique style of presentation appealing to the farmers. The respondents thought that the presenter spoke friendly with the farmers and built rapport with them easily with his amiable behavior, positive attitude and gesture. Many of the FGD participants in Bagerhat, Patuakhali and Dinajpur opined that the presenter demonstrated how to carry out cultivation procedure of a particular crop meticulously. The farmers could easily understand the demonstration and replicate the same. The KII respondents opined that the farmers liked the presenter since he used to give emphasis on the participation of the farmers in his programme. Some of the KIIs viewed that the programme is produced in interactive and participatory means where the farmers usually have voices.

Reasons for 'not using' information: Of the respondents who did not use the information, more than half of them (62 percent) 'had no ability' to use the same. More than one-third (38

percent) farmers ‘did not need’ the information. The remaining 15 percent respondents ‘could not find the information befitting with agricultural atmosphere of their locality’ (Table 4.2.2.iii).

Table 4.2.2.iii - Frequency and percentage of the respondents stating reasons for ‘not using’ information

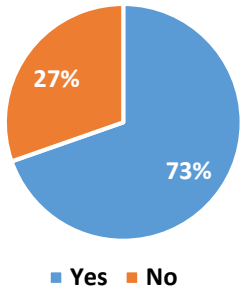
S/ N	Reasons for not using the information	Frequency (N)	Percent (%)
a.	Did not need the information	32	37.6
b.	The information was not befitting with agricultural atmosphere of the locality	13	15.3
c.	Had no ability to adopt	53	62.4
	Total	98	115.3*
* Note: Because of multiple choices, total percentage distribution became more than 100.			

The FGD findings on this aspect showed that the farmers were calculative on the use of information in their agricultural practices. Information on some areas of agricultural activities are not usually suitable for everybody. ‘All information on agriculture are not equally important for all the farmers since all the farmers do not have same crops to grow and same things to do”, the FGD respondents realized. The KII respondents stated that the farmers repeatedly thought before adopting a new agricultural practice or a new thing in their regular agricultural activities since adoption of a new idea in agriculture was associated with risks. The farmers having weaker financial condition were usually shy of adopting the new idea or information lest they might have become loser. Due to weaker financial condition, they usually did not venture to undertake any new practice or idea in agriculture. But, when they frequently observed their fellow farmers getting benefits from using a new phenomenon or adopting a new idea in their agricultural practice, they became interested and tried to adopt the same.

4.2. 2.1. c. Role of opinion leaders in using information

Of the total respondents, about three-fourth (73 percent) opined that they used to talk to the 'opinion leaders' (the people i.e. relatives, friends, village elites like teachers, doctors, religious leaders, Union Parishad members/chairman et.al. who influence the decision making process of the farmers) regarding the use of the information received from the programme. The remaining ones, 27 percent did not talk to the opinion leaders (Figure 4.2.2.2).

Figure 4.2.2.2 - Percentage of the respondnets discussing with opinion leaders



Types of Opinion leaders: Regarding the types of opinion leaders, multiple responses were revealed and a total of 515 responses came out from 311 respondents. The highest percentage of the responses went for the family members by 68 percent respondents. The position of the 'fellow farmers'; 'friends and relatives'; 'teachers, *Imam*, priest, village doctors' and 'NGO workers'; stood second, third and fourth with 50 percent, 43 percent and 2 percent responses respectively. Among other opinion leaders, the name of the UP (Union Parishad) members and chairman were mentioned by two percent respondents while five percent respondents mentioned the name of agricultural officers (Table 4.2. 2.iv.).

Table 4.2.2.iv– Frequency and percentage of the respondents consulting with the types of opinion leaders

Types of opinion leaders	Frequency (N)	Percent (%)
i. Experienced fellow farmers	156	49.7
ii. Friends	136	43.3
iii. Teachers, Imam, Priest, Village doctors, NGO workers	4	1.3
iv. Family members and relatives	214	68.2
v. UP Members and Chairman	5	1.6
vi. Agricultural officers	16	5.14
Total	515	169.1
* Note: Because of multiple choices, total percentage distribution became more than 100.		

Findings on Research Question (RQ) 03:

What are the benefits of using agricultural information that received from the programme?

Under this key question, answer on getting benefits from use of information from the programme was compared among the villages. Benefits with other factors like gender, education and income of the farmers were also explored. It revealed the specific areas of agricultural activities where the farmers got benefits. Findings on the aforesaid aspects are presented below:

4. 2. 3.1. Benefits of using agricultural information

The study shows that use of agricultural information has a great benefit to the farmers. Of the respondents (N=321) having used the agricultural information, 93.7 percent got benefits. Of the remaining respondents, about three percent did not get benefit whether 3.4 percent did not respond (Table 4. 2.3.i).

Table 4.2.3.i - Frequency and percentage of the respondents getting benefits from the use of information

Responses	Frequency (N)	Percent (%)
Yes	301	93.7
No	9	2.8
No response	11	3.4
Total	321	100

4.2.3.2. Types/areas of benefits

It reveals that out of total 425 respondents, 301 farmers provided responses on getting various types of benefit from the use of the agricultural information received from the programme. Multiple responses were accepted and the respondents reported to get 11 types of benefits. Considering multiple options, a total 1572 responses came.

The table 4.13 shows that 88 percent responses went for ‘getting abundant crops (food grains and cash crops)’. Thus, among the top ten benefits, the followings were reported: (ii) increased

information and knowledge on producing various types of crops by 69 percent responses, (iii) increased awareness on harmful insects, crops diseases and their prevention by 55 percent responses, (iv) production of crops at low cost by 51 percent responses, (v) increased linkage with buyers and crop market by 45 percent responses, (vi) increased honor in the society for better agricultural knowledge by 43.5 percent responses, (vii) developed capacity to approach to the government officials and the service providers by 42 percent responses. (viii) increased network and cooperation with fellow farmers and various organizations (ix) learned to produce environment friendly bio-fertilizers by 38 percent responses (x) got more price of the crops by 35 percent responses (Table 4.2.3.ii).

Table 4.2.3.ii – Frequency and percentage of the respondents getting various types of benefits from the use of information

S/N	Areas/types of Benefits	Frequency (N)	Percent (%)
i.	Got abundant crops (food grains and cash crops)	265	88.03
ii.	Increased information and knowledge on producing various types of crops	208	69.10
iii.	Increased awareness on harmful insects, crops diseases and their prevention	166	55.14
iv.	Produced crops at low cost	154	51.16
v.	Increased linkage with buyers and crop market	135	44.85
vi.	Increased honor in the society for better agricultural knowledge	131	43.52
vii.	Developed capacity to approach to the government officials and service providers	126	41.85
viii.	Increased network and cooperation with fellow farmers and various organizations	120	39.85
ix.	Learned to produce environment friendly bio-fertilizers	115	38.20
x.	Got more price of the crops	106	35.21
xi.	Understood importance of the farmer's participation in national budget	46	15.28
	Total	1572	522.19
* Note: Because of multiple choices, total percentage distribution became more than 100.			

Findings from FGD and KII on the Benefits

The qualitative data derived from the FGDs and KIIs supplemented the aforesaid findings in the following manner:

Getting abundant crops: The frequent FGD responses were that the farmers got plenty of crops like. rice, maize, wheat, jute, live assets, fishes, honey, fruits, flowers, milk and many other agricultural products after watching the programme and using information received from the same. For example, the farmer used information from the programme in planting of BRRI rice, aromatic rice, vegetables, potatoes, tomato and many other crops in the ways the programme depicted. Some of the FGD participants told that planting paddy seedlings in rows (which they learned about the same for the first time from the programme) eased their nursing like wedding out, putting fertilizers and irrigation properly. Thus, they got plenty of rice. Some of the farmers used 'bagging system of fruits' which protected the fruits like mango from pre-matured falling and the attack of insects which ultimately promoted to get good crops. Besides, being motivated by the programme, some of the farmers planted fruit-trees like guava, *Kazi Peyara* (high yield variety of guava), and litchi in their unused homestead lands which also produced good fruits.

Increased information and knowledge on nurturing of the crops: The FGD responses show that their information and knowledge level increased from the use of the information of the programmes. For example, they stated that after watching the programme they could know how to manage insects without chemical pesticides, take care of fishes, live assets etc. In some houses of Natore, the farmers used 'bottom layer bottle therapy' for watering their coconut three in the dry season, in Bagerhat, many farmers learned on the nurturing of the shrimp, and in Tangail, rooftop gardeners' knowledge on gardening increased due to the use of information availed from the programme.

Prevention of harmful insects: The FGD responses show that they could prevent the menace of harmful insects of various crops in the environment friendly manner which was depicted in the programme. For example, they used to prepare and apply ‘hormone pheromone trap’ in their crop fields to kill the harmful insects which they have learned from the programme.

Production of crops at low cost: Many farmers in the FGD stated that they grew some types of crops at very low cost being motivated by the programme. For example, they told that in many cases, they were motivated to use ‘cow-dung’ and other ‘bio-fertilizers’ and applied ‘natural and innovative’ techniques for growing their crops which involved low costing. If they depended on the chemical fertilizers and pesticides only, their costing could be increased many folds.

Increased linkage with market and getting more price: According to some of the FGD participants and KII respondents, the farmers became aware of the price of their products after seeing the interferences of the middle men in the product markets as depicted in the programme. After watching such programme, the farmers’ mobility was increased and they visited various market places to pursue for better prices. Many farmers stated that now their products were taken from their own homes by the large traders. Thus, they got more price than before. The programme facilitated them to understand and aware of the exploitation of the intermediaries.

Learned to produce environment friendly organic fertilizers: Some of the KII and FGD respondents in various villages told that they were putting more importance on producing bio-fertilizers than using typical chemical fertilizers. Many farmers stated that they could not properly understand the quantity of chemical fertilizers and pesticides against the amount of their land. So, they gave priority to produce and use bio-fertilizers. The programme presented the techniques of producing such fertilizers thorough covering success stories of many farmers in this sector.

Developed capacity to approach to the service providers: According to the FGD findings, the programme in many places of the country arranged face-to-face interactions between the farmers and the service providers. The higher level policy makers were also present in those gatherings. Moreover, many government officials (agricultural officers, extension officials, livestock officials, fishery officials) were brought to the crop fields for interviewing. Such initiative allowed the farmers to interact with them after the completion of the interviews. Moreover, the agricultural officers instantly gave solutions to many diseases of the crops and infestation of harmful pests. Such interaction developed capacity for the farmers to approach to the agricultural officials, government and the non-government officials.

Increased communication and cooperation among the fellow: Being motivated by the programme, many farmers were involved in cooperative agricultural activities like fish cultivation in the lake, irrigation in groups and so on. Such activities strengthened existing cooperation among the fellow farmers.

Understood importance of participation in national budget: Most frequent responses from the FGDs showed that the programme created a platform for presenting the farmers' issues to include in the national budget. Previously, the national budget was considered a matter of the urban elites, politicians and experts. Due to the 'Farmer's Budget' programme, the farmers could know that their issues needed to be included in the national budget. For that, they should raise their voices together.

Increased honor in the society: Due to improved knowledge for exposure to the programme and using information from the same, the farmers are now treated well in the society. According to the FGD findings, many farmers are invited to various social and cultural gatherings like village arbitration, yearly events of the local schools and educational institutes.

4.2.3.3. Outcomes of benefits

According to most of the FGD participants and the Key Informant Interviewees, the aforesaid benefits had visible outcomes to the farmers. With the increased knowledge and information, the farmers could know about their life related issues. Due to their improved knowledge and effective information on diversified crop production techniques, they were able to increase crop production at the minimal costing. Their improved linkage with various vendors and information on crop markets facilitated them to get more prices of their products in many cases. Earning more money by selling their products brought honour for them. With the improved financial capability, the farmers could contribute more effectively to their children's food, nutrition, health and education. Many farmers were able to transform their lives from 'survival' to 'surplus' economic condition. Thus, the benefits contributed to uplift the overall socio-economic status of the farmers. Development of the socio-economic indicators like national growth rate, literacy, reduction of poverty, rate of sanitation etc. in the recent years can be linked with the development of the agriculture and its associated sectors in Bangladesh. Thus, the agricultural growth has contributed largely to the economic development of Bangladesh.

Findings on Research Question (RQ) 04:

How is the perception of the farmers on the design of the programme?

Under this research question, farmer's opinion about the designing of the programme i.e. time slot, frequency and length of the programme; legibility of the message; acceptance and credibility of the programme designer; farmer's interest to participate in the programme and gender representation were explored. So, the findings related to the aforesaid aspects are presented below:

4.2.4.1. Programme planning

4.2.4.1.a. Time slot/programme length

The study reveals that most of the farmers, about 71 percent, opined that the time of broadcast of the programme was suitable for them. However, 27.5 percent respondents did not find the slot suitable. The remaining one percent respondent did not respond (Table 4.2.4.i).

Table 4. 2.4.i – Frequency and percentage of the respondents replying on suitability of present broadcast time

Answers	Frequency (N)	Percent (%)
Yes	302	71.1
No	117	27.5
No response	6	1.4
Total	425	100.0

The frequent responses from FGD on this point show that the farmers became habituated to watch the programme at the present slot of time, so the slot was not a problem for them. However, a good number of respondents opined that the present time of broadcast was not suitable for them since most of the villagers sleep earlier at night. So, the present broadcast time was not conducive for many farmers.

4.2.4.1.b. Alternative preference of broadcasting

Of the respondents (n=117) stating the present slot unsuitable, 86 percent preferred 'evening' as the suitable slot for broadcasting the programme. More than 10 percent preferred 'mid-day' as a suitable time slot (Table 4.2.4.ii).

Table 4.2.4.ii - Frequency and percentage distribution of the respondents replying on suitable time slots

Time slots	Frequency (N)	Percent (%)
Morning	2	1.70
Mid-day	12	10.25
Afternoon	2	1.70
Evening	101	86.32
Total	117	100.0

4.2.4.1.c. Satisfaction with the duration of the programme

The majority of the respondents (62%) demanded more duration of the programme for which they felt uncontended. About 35 percent expressed their satisfaction with the length of the programme while about four percent respondents did not say anything (Table 4.2.4.iii).

Table 4.2.4.iii – Frequency and percentage of the respondents replying on their satisfaction with the length of the programme

Responses	Frequency (N)	Percent (%)
Yes	146	34.4
No	263	61.9
Do not know	16	3.8
Total	425	100.0

4.2.4.1. d. Expected duration

Regarding length of programme, about the three-fourths (73%) of the respondents opined for continuing an episode of 45 to 60 minutes replacing existing duration of 20 to 25 minutes. About 14 percent respondents desired 30-45 minutes as duration of the programme. About12percent respondents opined for more than one hour as the programme duration (Table 4.2.4.iv).

Table 4.2.4.iv - Frequency and percentage of the respondents replying on the expected length of the programme

Answers	Frequency (N)	Percent (%)
30-45 minutes	39	13.97
45-60 minutes	197	70.60
More than 1 hour	34	12.18
Can't tell	9	3.22
Total	279	100.00

4.2.4.1.e. Preferred programme frequency

More than half-of the respondents (53%) opined that the programme should be telecast two days a week against one day at present. Of the respondents, 28.5 percent demanded the programme for four days a week (Table 4.2.4.v).

Table 4.2.4.v - Frequency and percentage of the respondents replying on their preferred frequency (days a week) of the programme

Days Preferred	Responses (N)	Percent (%)
1 Day (present frequency)	51	12.0
2 Days	226	53.2
3 Days	19	4.5
4 Days	121	28.5
5 Days	8	1.8
Total	425	100.00

The most frequent responses coming from the FGDs regarding this were to increase length of the episode of the programme. Some discussants stated, "It seems that the programme ends in a few moments". A good many responses were for increasing the frequency of the episodes to capture more issues of agriculture.

4.2.4.1.f. Legibility of message

Language (Audio): The language of the programme (audio) was opined as 'easy' by almost all the respondents (93%) while the remaining ones told the same as 'moderately easy' (Table 4.2.4.vi).

Table 4.2.4.vi - Frequency and percentage of the respondents replying on their feelings of the *HMOM* language

Response	Frequency (N)	Percent (%)
Easy	396	93.2
Moderately easy	29	6.8
Total	425	100.0

Video/Visuals: Almost similar findings came about the feelings of the video shown in the programme. Almost all the respondents (96%) opined that the pictures shown in the programme were easy to understand while the remaining ones opined the same as 'moderately easy' (Table 4.2.4.vii).

Table 4.2.4.vii - Frequency and percentage of the respondents replying on their feelings of *HMOM* visuals

Answer	Frequency (N)	Percent (%)
Easy	409	96.2
Moderately easy	16	3.8
Total	425	100.0

Most frequent responses from the FGDs showed that the presenter's language was not very formal. He developed a style of his own which was easily understandable by the farmers. His oral presentation was like 'telling stories' with the rural people. The words used in his narration were mostly common words. His gesture and posture were like the people of rural culture and he could easily mix with the people and develop rapport with the farmers through his words. Regarding video footage, the respondents stated that the moving pictures were seemed very familiar with the village people since the rural agricultural activities and natural scenery were presented. However, a few respondents in Patuakhali told that they could not understand the meaning of a few technical words like 'metric ton' and 'hector' used in the programme.

4.2. 4.2. Perception on the programme presenter

4.2.4.2. a. Retention of the presenter's name

The programme presenter was familiar with the audience since more than 86 percent respondents could mention the presenter's name. The remaining ones could not recall the same (Table 4.2.4.viii).

Table 4.2.4.viii - Frequency and percentage of the respondents recalling of the *HMOM* presenter's name

Response	Frequency (N)	Percent (%)
Yes	368	86.6
No	57	13.4
Total	425	100.0

4.2.4.2. b. Personality of the presenter

In respect of personality (movement, speaking style/expression and dress-up) of the presenter, the highest percent (85.2%) of the respondents mentioned that it was 'very good' while14 percent respondents thought as 'good' (Table 4.2.4.ix).

Table 4.2.4.ix - Frequency and percentage of the respondents opining on *HMOM* presenter's personality

Opinion	Frequency (N)	Percent (%)
Very good	362	85.2
Good	60	14.1
Moderate	3	.7
Total	425	100.0

4.2.4.2. c. Communication approaches of the presenter

Of the respondents, 85 percent opined that behavior and communication approaches (gesture, posture and rapport with farmers) of the presenter were 'very good' while the remaining ones commented as 'good' (Table 4.2.4.x).

Table 4.2.4.x - Frequency and percentage of the respondents opining on *HMOM* presenter's communication approach

Opinion	Responses (N)	Percent (%)
Very good	361	84.9
Good	64	15.0
Total	425	100.0

4.2.4.2. d. Knowledge and ideas of the presenter

The highest percentage of the respondents (85%) opined that the programme presenter possessed 'very good knowledge' on the topics of agriculture. On the same issue, 14 percent opined as 'good' (Table 4.2.4.xi).

Table 4.2.4.xi - Frequency and percentage of the respondents opining on agricultural knowledge and ideas of the *HMOM* presenter

Opinion	Frequency (N)	Percent (%)
Very good	362	85.2
Good	60	14.1
Moderate	1	.2
Not good	2	.5
Total	425	100.0

4.2. 4.2. e. Credibility of the presenter

The study found a very high level of credibility of the presenter among the farmers since more than 98 percent respondents stated positively on the issue. Only two percent respondents opined negatively (Table 4.2.4.xii).

Table 4.2.4.xii - Frequency and percentage of the respondents opining on credibility of the presenter

Opinion	Frequency (N)	Percent (%)
Have credibility	418	98.4
No credibility	2	.5
No response	5	1.2
Total	425	100.0

4.2.4.3. Comparison of *HMOM* with similar TV programmes

4.2.4.3.a. Exposure to other agricultural programmes on TV

Of the respondents, 82 percent reported that they had no exposure to other agricultural TV programmes apart from *HMOM*. Among the remaining ones, 13.6 percent watched some other programmes (Table 4.2.4.xiii).

Table 4.2.4.xiii - Frequency and percentage of the respondents watching other agricultural programmes on TV

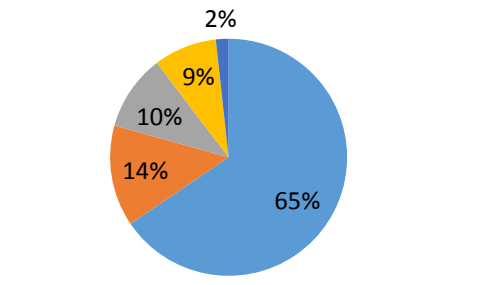
Responses	Frequency (N)	Percent (%)
Yes	58	13.6
No	348	81.9
No response	19	4.5
Total	425	100.0

4.2.4.3. b. Name of other agro-based TV programmes

Of the respondents having exposure to other agricultural programmes on TV, 65 percent (N=38) mentioned the name of 'Krishi Dibanishi'. The name of the programmes 'Shyamol Bangla', 'SAARC Krishi' and 'Mati O Manush (*MOM*)' took second, third and fourth position with 14 percent, 10 percent, 9 percent respectively (Figure 4.2.4.1).

Regarding exposure to other agricultural programmes on TV, the FGD and KII respondents viewed almost in similar way. According to most of the respondents, previously popular *MOM* programme has lost its audiences due to the absence of Shykh Seraj as the presenter from its planning and producing. They also pointed out that the TV programmes that followed Seraj's paradigm did not reach to the audiences significantly due to flagging in suitable and attractive content section, interactive field-level production and spontaneous presentation.

Figure 4.2.4.1 : Percentage of the respondnets watching other agro-based TV programmes



4.2.4.3.c. Similarities and dissimilarities

Out of the 58 respondents watching other TV programmes on agriculture, more than 65 percent mentioned that there were 'similarities' and 'differences' between *HMOM* and other programmes. About one-fourth (24%) of the respondents could not tell about the same while more than 10 percent respondents found no similarities or dissimilarities (Table No. 4.2.4.xiv).

Table 4.2.4.xiv - Frequency and percentage of the respondents opining on similarities and dissimilarities of *HMOM* with the programmes alike

Responses	Frequency (N)	Percent (%)
Yes	38	65.51
No	6	10.34
No response	14	24.13
Total	58	100.0

Similarities: The frequent responses from FGDs showed that both *HMOM* and other agricultural programmes present agricultural aspects and issues targeting the farmers in the rural settings. So, there were similarities in the subject and the purpose.

Dissimilarities: The findings from FGDs revealed that there were some specific differences between *HMOM* and other TV programmes on agriculture. The responses on the differences included:

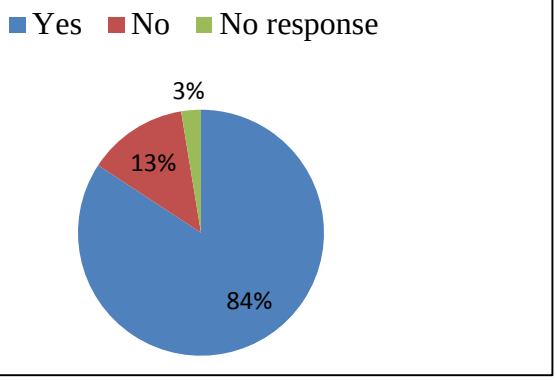
- The *HMOM* presenter seemed an experienced and friendly person with the farmers who saw interest of the farmers sympathetically and empathetically.
- The *HMOM* programme was more informative than others.
- The farmers had much opportunity to present their voices.
- The proggarme is presented in the most participatory way.
- The presenter approaches the farmers working in the fields, even in the marshy lands or *haor* directly.
- The presenter covered the interviews and subjects of discussion on agriculture in a manner which did not hamper the farmer's work.

4.2.4.4. Farmers' inclination to participate in the programme

4.2.4.4.a. Inclination to participate

It revealed, 84 percent farmers expressed interest to participate in the programme in the form of sharing experiences and demonstrating their successes in agricultural activities. Of the respondents, 13 percent farmers did not show interest to participate in the programme. The least number of the participants could not tell whether they would participate (Figure 4.2.4.2).

Figure 4.2.4.2 : Percentage of the respondents interested to participate in *HMOM*



4.2.4.4.b. Gender-based interests

It revealed that the female farmers were lagging behind to express their inclination to participate in the programme. Among the female respondents, 68 percent were interested to participate in the programme while the percentage was about 95 for the male farmers (Table 4.2.4.xv).

Table 4.2.4.xv - Frequency and percentage of the respondents (gender-wise) taking interests to participate in *HMOM*

Sex	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Male	242 (95)	9 (3.5)	4 (1.5)	255
Female	116 (68)	47 (27.6)	7 (4)	170
Total	358	56	10	425

The frequent responses coming from FGD showed that the 'purdah system', 'male dominance', 'lack of awareness and education' were the key barriers to the female's media exposure.

4.2.4.5. Perception on presenting the female farmers

4.2.4.5.a. General opinion on the presentation

More than three-fourths of the total respondents report that the female farmers were usually shown in the programme. About the remaining one-fourth (24 percent) of the respondents opine that the female farmers were shown sometimes (Table 4.2.4.xvi).

Table 4.2.4.xvi - Frequency and percentage of the respondents opining on presenting the female farmers in *HMOM*

Responses	Frequency (N)	Percent (%)
Yes	321	75.5
No	1	.2
Sometimes present	101	23.8
No response	2	.5
Total	425	100.0

4.2.4.5.b. Degree/extent of presentation of female

Most of the respondents (62%) stated that the female farmers were less presented in the programme than those of their male counterparts while 30 percent opined that the female farmers were presented equally as of their male counterparts. A small portion of the respondents (7%) opined that the female farmers were presented in the programme more than the male farmers (Table 4.2.4.xvii).

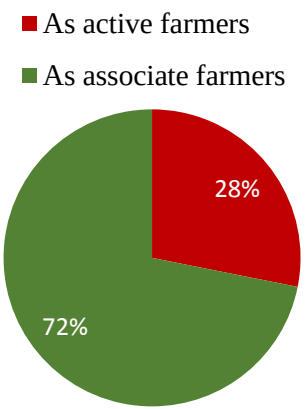
Table 4.2.4.xvii - Frequency and percentage of the respondents opining on degree of presentation of the female farmers in *HMOM*

Opinion	Frequency (N)	Percent (%)
Presented more than the male farmers	31	7.34
Presented equally of the male farmers	128	30.33
Presented less than the male farmers	263	62.32
Total	422	100.0

4.2.4.5.c. Portrayal of female farmers in the programme

Regarding the manner of presentation of the female farmers, about one-fourth of the respondents opined that they were represented as active (main focus of the agricultural activities depicted in the programme) farmers. The remaining 28 percent respondents opined that the female farmers were shown as associate (secondary focus or as assistant of the male farmers in agricultural activities) farmers (Figure 4.2.4.3). The findings from FGDs showed that the female farmers were mostly engaged in home-around agricultural activities, like poultry farming, fishery, preparation and preservation of seeds and seedlings, harvesting, processing of paddy and other crops mostly in the home-yards. Due to male dominance in agricultural activities, female's voices were not much heard or projected in the TV media. The *HMOM* presenter, also the KII, in the study told that the presence of the female farmers were comparatively low in the programme at the initial stages due to conservative rural culture, male dominance and 'purdah' system. But, at present, the notion is being changed, the female farmers are getting interested to be projected and the HMOM is capturing more success cases of female farmers.

Figure 4.2.4.3 : Percentage of the respondents opining on the manner of female farmers' portrayal in *HMOM*



Findings on Research Question (RQ) 05:

How is the perception of the farmers on the programme's contribution to the sustainable agricultural development of Bangladesh?

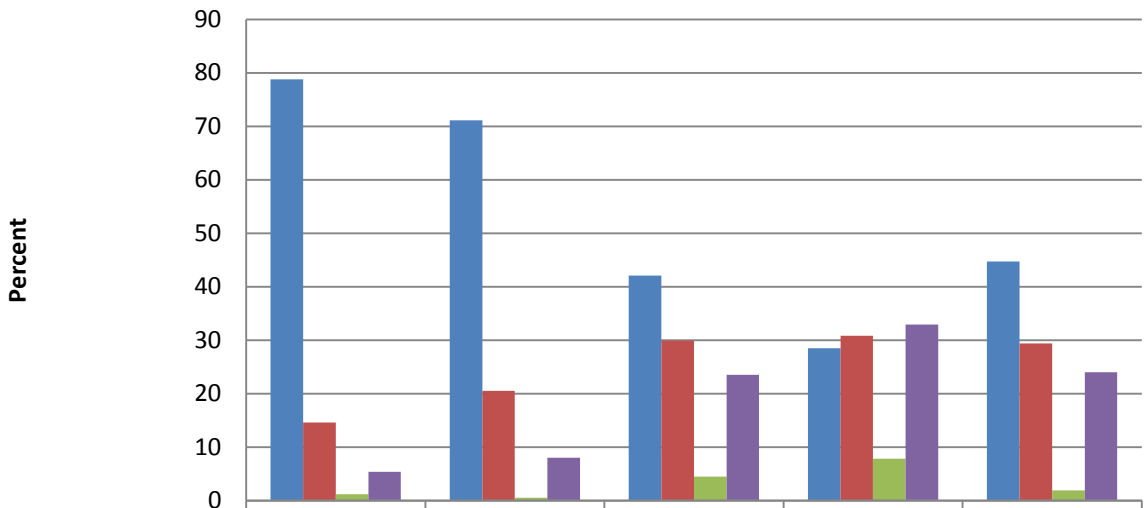
Under this research question, perception of the farmers on the programme's contributions has been revealed in the following thematic areas:

i. Informing and educating the farmers on new crops, employment generation, techniques of agriculture, farmer's networking and dissemination of innovations in agriculture:
ii. Presenting farmer's voices and rights related issues
iii. Creating awareness on climate change and disaster
iv. Farmers' entertainment
v. Encouraging and motivating for using technologies, and
vi. Encouraging the young people toward agriculture

4.2.5.1. Informing and educating on new crops, employment generation, techniques of agriculture, cooperative farming and dissemination of innovations in agriculture

It reveals, more than three-fourths of the respondents (79%) agreed and about 15 percent moderately agreed that the programme contributed to the development of agriculture with necessary information on producing new crops in the country. Due to introducing new varieties in paddy like BR-23, 40, 41, 53 and 54; BINA-8, 10 etc.; in fruits like Kazi Peyara (Kazi Guava), a special variety innovated by an agricultural scientist Dr. Kazi M. Badruddoza; strawberry, BAU Kul (Bangladesh Agricultural University Palm); Saudia date; in fish like tilapia (carp) and many other crops, the programme got an unique identity.

Figure 4.2.5.1 : Percentage of the respondents opining on *HMOM* contribution to five agricultural areas



	Ggrowing new crops	Employment generation	Indegenous/appropriate agro-technology	Cooperative agriculture and farmer's network	Agricultural innovation and experience
Agree	78.8	71.1	42.1	28.5	44.7
Moderately Agree	14.6	20.5	29.9	30.8	29.4
Disagree	1.2	0.5	4.5	7.8	1.9
No response	5.4	8	23.5	32.9	24

Of the respondents, 71 percent agreed that the programme contributed to income generation of the farmers by presenting various ways of employment while more than 20 percent respondents moderately agreed on the same. In some of the programmes it was presented that creating value chains of a particular agro-product, employment of the farmers can be created at different stages and there are some opportunities of income at all the stages. For example, it was shown how puffed rice can be produced from rice and sold out in the market. In this value chain process, employment was created in various stages where the income of the farmers and the labourers generated. Moreover, the programme stressed on multiple sources of income generation for the farmers, i.e. fishery and duck cultivation together, fishery and paddy cultivation in a single land at a time, homestead gardening besides raising poultry, etc. became popular after the programme was initiated. The findings from the key informant interviews and focus group discussions reaffirmed these findings.

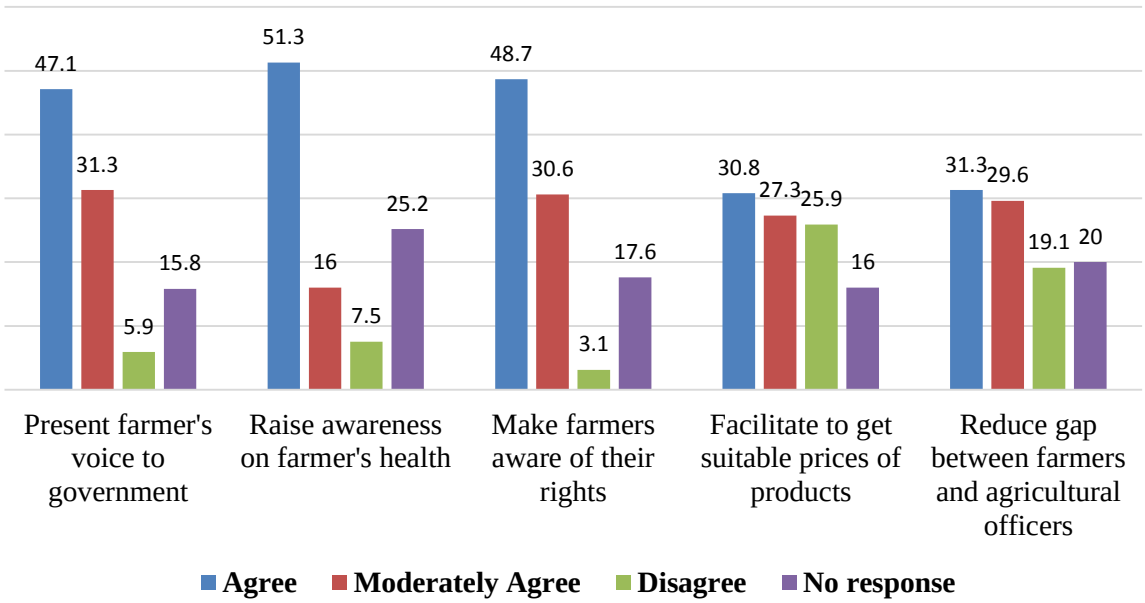
Forty two percent respondents agreed that the programme contributed to informing the farmers of natural techniques and appropriate technology of agriculture. However, 23.5 percent farmers did not know about the same. The programme presented the techniques of producing and utilizing bio-fertilizers and irrigation technologies besides disseminating information on 'hormone pheromone trap', a unique way of pest control which is very cheap and simple technology. The programme also portrayed how 'vermi-compost', a special type of fertilizer produced with the help of vermin, can be produced at the cheap cost. All these are now being much-utilized techniques which are practiced in agriculture of Bangladesh instead using chemical fertilizers. In this way, the soil health is preserved, fertility remains unchanged and environment is not hampered due to agricultural activities, some of the Key Informant Interviews with the agricultural experts showed.

More than 28 percent respondents agreed that the programme contributed to the farmer's cooperation and networks while 31 percent moderately agreed on the same. Farmer's joint irrigation and network among the farmers of different expertise and areas was emphasized. However, the highest percentage of the respondents (33 percent) did not know about the same. About three-fourths of the respondents 'agreed' and 'moderately agreed' that the programme contributed to disseminating agricultural innovations and experiences. However, about one fourth of the respondents (24%) did not know about the same. The programme, for example, covered innovation of new variety of paddy 'Hori Dhan' by a farmer name Hori Pad Kapali; banana cultivation through tissue culture, an innovation by a non-government organization 'Proshika'; fruits cultivation in the paddy field in Vietnam, an experience sharing programme; onion cultivation in the 'Chalan bill (marshland) ' without plowing. The programme disseminated many different types of reports depicting innovation in the areas of agriculture (Figure 4.2.5.1).

4.2.5.2. Raising farmer's voices and their rights

The programme contributed to presenting the farmer's voices to the government, as more than three-fourth of the respondents (47 percent 'agreed', 31 percent 'moderately agreed' = 78 percent) provided positive opinion on that. However, 16 percent respondents did not know about the same.

Figure 4.2.5.2 : Percentage of the respondents opining on *HMOM* contribution to present farmer's voice and rights related issues



From the viewpoint of social responsibility, mass media should reflect the people's voice to the government and at the same time government's planning, decisions and directives should be communicated with people. It is a two-way process of communication through mass media. The programme contributed on that, particularly presenting the farmer's voices regarding the agricultural budget to the government, and, at the same time, the programme imparted information on the government's activities and decisions about the affairs and issues of the agriculture and the farmers.

Regarding the programme's contribution to creating awareness on the farmer's health issues, more than half of the respondents agreed while 16 percent moderately agreed on that. One-fourth percent of the respondents did not know about that. Of the respondents about 49 percent

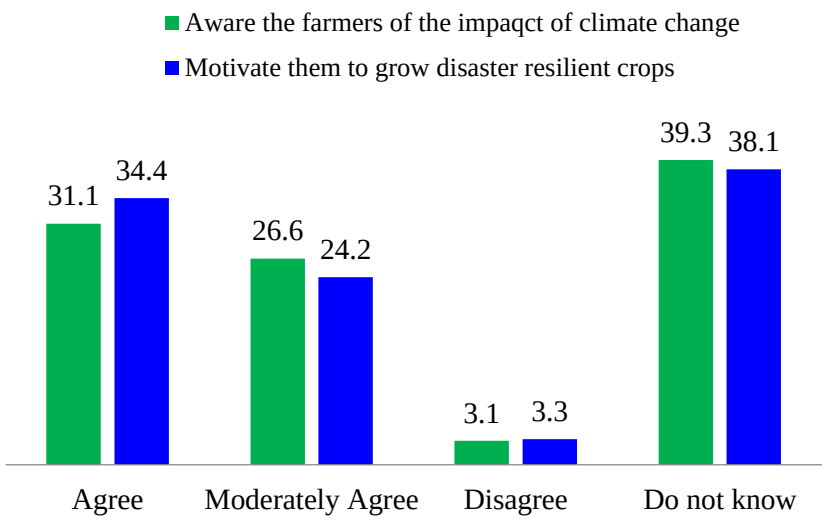
agreed that the programme made the farmers aware of their citizen rights while more than 30 percent moderately agreed on the same. However, more than 17 percent respondents didn't know about the issue. About 31 percent respondents agreed that the programme facilitated them to get suitable prices of their products while 37 percent moderately agreed on the issue. Twenty six percent respondents disagreed on the issue while 16 percent didn't know about the same. The programme contributed to reducing the gap between the relevant government officials and the farmers since 31 percent agreed and 30 percent moderately agreed on the same. One-fifth percent of the respondents didn't know about the issue while 19 percent disagreed on the same (Figure 4.2.5.2).

4.2.5.3. Creating awareness on climate change and disaster

Most of the respondents opined positively regarding the programme's contribution to creating awareness on climate change and motivating the farmers to cultivate disaster resilient crops. For example, the programme telecast on the production of disaster resilient rice like BINA-10 and BINA-14. The programme has covered wide range of issues on the climate change and disasters under its thematic approach the 'Earth File' initiated in 2012. Impact of the climate changes on the agriculture has been integrated in the programme as well.

The percentage of the respondents agreed the programme's contribution to creating awareness on the impact of climate change on agriculture, and motivating to cultivate disaster resilient crops vary from 31 to 35 respectively. Similarly, the respondents 'moderately agreed' on the issues were 24 and 27 percent. However, the percentage of the respondents who didn't know about the issues varied from 38-39 (Figure 4.2.5.3).

Figure 4.2.5.3 : Percentage of the respondents opining on *HMOM* contribution to create awareness on climate change and disaster



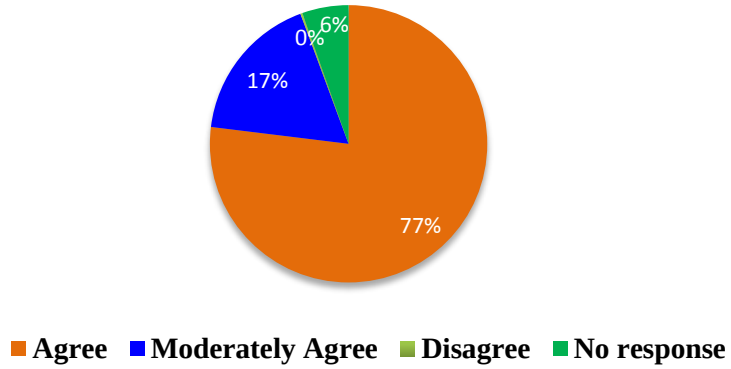
Regarding this, the KII informant interviews reveal, this might be due to lack of knowledge of the farmers on the same. Moreover, the farmers of all the regions were not equally in the danger of the climate changes since the impact is perceived more visible in the coastal regions. This is because; the level of awareness of the farmers on the impact of the climate changes was not equal.

4.2.5.4. Entertaining the farmers

About the programme's contribution to entertaining the farmers, three-fourths of the respondents agreed and 17 percent moderately agreed. Six percent respondents did not respond on that (Figure 4.2.5.4).

The frequent responses from FGD show that the farmers are facilitated to perform various roles in different types of innovative cultural shows relevant to the rural context. The programme present a few specialized shows i.e. *Krishoker Eid Anaonda* (farmer's eid delights), *Krishoker Bishaw Cup* (farmer's world cup), and *Krishoker Boishakhi* Anando (farmers delights on the first month of Bangla New Year) which are designed in a way that the farmers could actively participate and performed their life styles and rural cultural events. According to the key informant interviews, the farmers eagerly wait for those programmes which are considered more popular and attractive than 'Bangla films' to most of the farmers. Moreover, projection of the farmer's success in different types of agriculture was also a great source of pleasure for many.

Figure 4.2.5.4 - Percentage of the respondents opining on *HMOM* contribution to farmer's entertainment

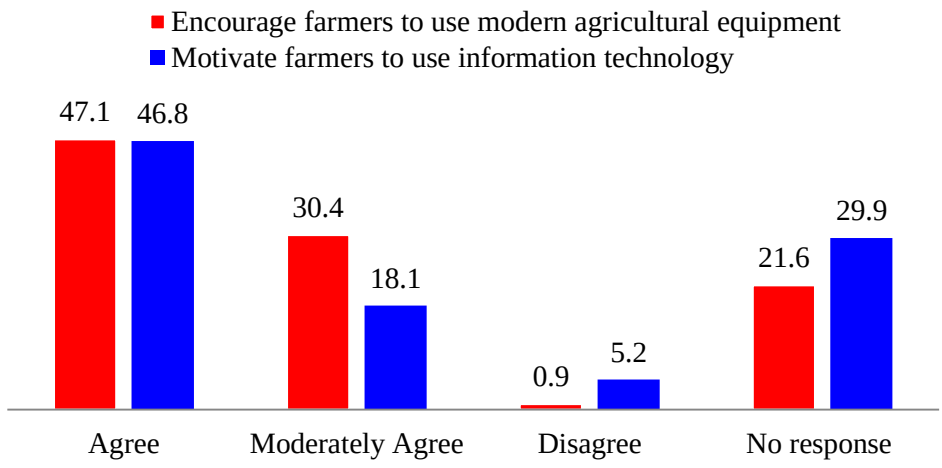


4.2.5.5. Encouraging and motivating for using technologies

Of the respondents 47 percent agreed that the programme contributed to encouraging the farmers to use modern agricultural equipment and motivating them to adopt ICT (information and communication technology). However, more than 30 percent respondents moderately agreed on the farmer's use of modern agricultural equipment and 18 percent moderately agreed on the use of ICT.

The programme imparted reports on the use of drum seeder, bio-gas plant, paddy-harvester and other technologies used in the fields of agriculture. Some experiences of the use of these machines in the foreign agriculture were presented. Apart from these, the farmers were facilitated to use information technology, particularly internet. For example, the farmers were suggested to visit union information centre and use internet for seeking information on agriculture. The programme covered reports on 'info lady' which was motivating for many young farmers. In some of the episodes of the 'Farmer's Budget' programme, use of ICT in the promotion of agricultural activities has been emphasized. Of the respondents, about 30 percent didn't not know about programmes contribution to facilitating the farmers to use modern agricultural equipment while more than 21 percent didn't know about the contribution to motivating the farmers to use ICT (Figure 4.2.5.5).

Figure 4.2.5.5 : Percentage of the respondents opining on *HMOM* contribution to motivate them toward technologies

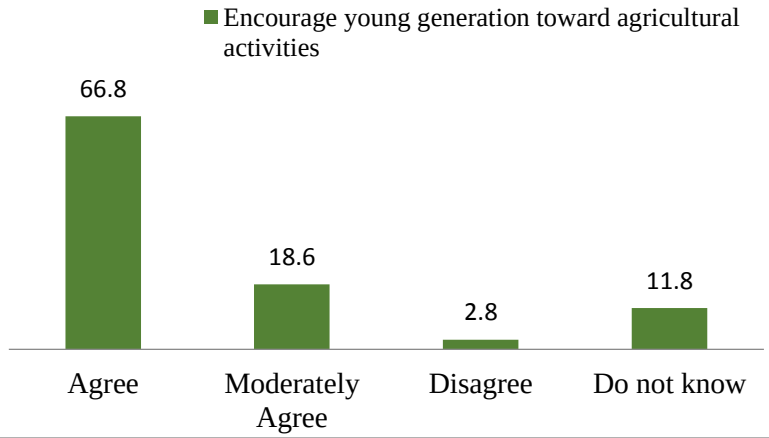


4.2.5.6. Encouraging young people for agriculture

It reveals that the percentage of the respondents agreeing on the programme's contribution to encourage young people to involve in agriculture was 67 percent. About one-fifth of the respondents 'moderately agreed' on the aforesaid issue while about 12 percent did not know on the same (Figure 4.2.5.6).

The frequent responses from FGD reveal that the programme has engaged the students from schools, colleges and universities especially of the urban areas so that they could feel and understand the intimate involvement of the farmers in the agricultural activities as well as the love for the soil and the occupation. Agriculture as a profession is generally neglected by the urban youths because of their lack of knowledge and in-depth understanding of toiling that is needed for agriculture.

Figure 4.2.5.6 : Percentage of the respondents opining on *HMOM* contribution to encourage the youth toward agriculture



According to the key informant interviews, modern agriculture is becoming complex due to contextual changes, for example, change in climate, and change in agricultural landscape like techno-based agriculture. In order to meet the demand of the days, agriculture sector needs young and educated people who can carry out agricultural activities in the modern way like other countries. In this perspective, the programme is playing significant role to encourage the young educated people toward agriculture.

Findings on Research Question (RQ) 06:

How is the impact of the programme in changing agricultural practice of the farmers?

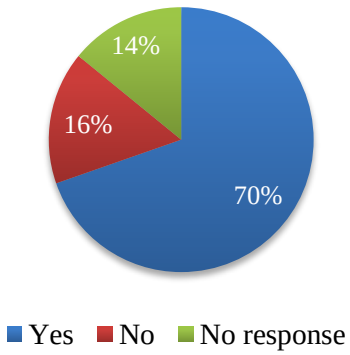
Under this research question, impact of *HMOM* has been understood from the perception of the respondents. It was explored whether the programme had contributed to ensuing any changes in the age-old agricultural practices of the farmers after their exposure to the same. The perceived changes stated by the respondents were further grouped into various areas of agricultural activities. In the analysis section (Chapter Five), impact of the programme in changing agricultural practice of the farmers has been detailed in terms of various socio-demographic features of the respondents by presenting categorical value analysis from the cross tabulation.

4.2.6.1. Perception on impact of *HMOM*

4.2.6.1.a. Perceived changes

The study reveals that *HMOM* programme had contributed to changing the previous agricultural practices of the farmers according to 70 percent (N=296) of the respondents. Of the respondents, 16 percent could not respond about any change and the remaining ones opined that there were no changes in their agricultural activities after the exposure to the programme (Figure 4.2.6.1).

Figure 4.2.6.1 : Percentage of the respondents perceived changes in their agricultural practices



4.2.6.1.b. Areas of changes in agricultural practices

Regarding areas of changes in the agricultural activities of the farmers, multiple responses were considered and a total of 1791 responses came out from 296 respondents. The responses were tabled under 14 specific areas of agricultural activities. The table below shows that the highest responses (71%) went for 'Produced and used organic and natural fertilizers'. Thus, among the top ten areas of changes in agricultural practices of the farmers, the followings were come out:

ii. Used higher quality of seeds by 69.5 percent of the respondents,

iii. Used modern agricultural equipment by 65.5 percent of the respondents,

iv. Used fertilizers and pesticides properly by 61 percent of the respondents,

v. Cultivated vegetables and fruits in the homestead, rooftops and unused land by 55.7 percent of the respondents,

vi. Grew crops as per quality of soil by 40 percent of the respondents,

vii. Took care of environment so that it was not interrupted or polluted by 43.5 percent respondents

viii. Consulted with experienced farmers and agricultural officials/experts by 40 percent respondents

ix. Grew multiple crops simultaneously in the same land or farm by 38 percent respondents

x. Concerned with health issues by 40.5 percent respondents (Table 4.2.6.i).

Table 4.2.6.i - Frequency and percentage of the respondents perceiving changes in their agricultural practices

S/N	Areas of agricultural	Frequency (N)	Percent (%)
i.	Produced and used organic and natural fertilizers	210	70.9
ii.	Used higher quality of seeds	206	69.5
iii.	Used modern agricultural equipment	194	65.5
iv.	Used fertilizers and pesticides properly	182	61.4
v.	Cultivated vegetables and fruits in the homestead, rooftops and unused land	165	55.7
vi.	Grew crops as per quality of soil	119	40.2
vii.	Took care of environment so that it was not interrupted or polluted	129	43.5
viii.	Consulted with experienced farmers and agricultural officials/experts	118	39.8
ix.	Grew multiple crops simultaneously in the same land or farm	113	38.1
x.	Concerned with health issues	120	40.5
xi.	Adopted innovative and natural methods of pest-control	103	34.7
xii.	Adopted agricultural technology and innovations	51	17.2
xiii.	Grew crops together with fellow farmers	41	13.8
xiv.	Took initiatives of growing disaster resilient crops	40	13.5
	Total	**1791**	**604.3**
* Note: Because of multiple choices, total percentage distribution became more than 100.			

According to the Key Informant Interviewees (KII), these changes of agricultural practices of the farmers were linked with the agricultural development of the country. For example, the farmers previously habituated to growing single crop produced multiple crops. Many farmers were reportedly concentrating on production and use of organic fertilizers while some of the farmers told of growing disaster resilient crops. These changes facilitated to improve socio-economic condition of the farmers. Thus, the perception of the farmers regarding their changes in the aforesaid agricultural practices after exposure to *HMOM* denoted impact of the programme. These changes were positive which contributed to improve living standards of the farmers and their family members.

Chapter Five

Analysis of Findings

Chapter Five
Analysis of Findings

In this chapter, analyses of the major findings on the study were discussed. There were three key areas of analysis:

5.1. Objective-based analysis

5.2. Theoretical framework-based analysis, and

5.3. The programme-based analysis

The objective based analysis represented interpretation of the key findings against the stated objectives of the study. The theoretical-framework based analysis contained interpretation of the findings associated with some of the established perspectives of communication and development which framed the foundation of the study. The programme-based analysis showed the strengths and weakness/limitations of the programme with further scope of work in the fields of agricultural development. In the analysis, categorical values in the relevant areas were figured out to signify association between two different variables which portrayed a comparative picture in number and percentage. Analysis was made on the basis of all the methods – questionnaire survey, FGD, KII and content analysis.

5.1. Objective-based analysis

The specific objectives of the study include to:

a. Understand the farmer's access to agricultural information from the programme
b. Figure out the farmer's adoption level of the agricultural information received from the programme and getting benefits from that
c. Comprehend impact of the programme from the perceived changes of the farmers in their agricultural practices

5.1.a. To understand the farmer's access to agricultural information from the programme

Under this objective, farmer's access to agricultural information, fulfillment of agricultural information needs, satisfaction with the information availed from the programme were figured out in terms of the respondent's socio-economic characteristics. Categorical value analysis was carried out through cross tabulation in the relevant areas to signify relation and comparison between two different variables.

a.1. Receiving agricultural information

The questionnaire survey reveals that 97 percent respondents got necessary agricultural information from the programme. Of the remaining three percent, 1.4 percent of the respondents did not get information while 1.6 percent did not respond (Table 4.2.1.v, Chapter Four).

Now, these findings are interpreted through the categorical value analysis to get a comparative situation of the farmer's receiving of agricultural information from *HMOM* programme in terms of the sex, type of village, income, age and education of the respondents.

Receiving information by type of the village: There was no significant difference of getting agricultural information from the programme in terms of the type of villages. It means that receiving information from the programme did not depend on the type of villages and the villagers. The programme could attract all most all the respondents in terms of differences in their living places (Table 5.1).

Table 5.1: Number and percentage of the farmers receiving agricultural information by the type of village

Type of village	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Transitional	208 (98)	3 (1.40)	1 (0.47)	212 (100)
Traditional	204 (95.77)	3 (1.40)	6 (2.81)	213 (100)
Total	412	6	7	425

Receiving information by sex: The categorical value analysis from cross-tabulation shows that there was no significant differences of getting agricultural information from the programme in terms of sex, i.e. the male and the female farmers. It means that the programme reached to both the male and female population of the rural areas almost in equal manner (Table 5.2).

Table 5.2: Number and percentage of the farmers receiving agricultural information by sex category

Sex	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Male	249 (97.64)	3 (1.1)	3 (1.1)	255 (100)
Female	163 (95.88)	3 (1.76)	4 (2.35)	170 (100)
Total	412	6	7	425

Receiving information by income: The categorical value analysis shows that there was a little difference between the income level and receiving of agricultural information from the programme. Except for the respondents belonging to the monthly income BDT 1000-5000, the receiving tendency of the respondents was almost similar, more than 90 percent to the 100 percent. The study shows that the respondents belonging to the monthly income group BDT 000 to 5000 were a little bit indolent in terms of receiving agricultural information (Table 5.3).

Table 5.3 : Number and percentage of the farmers receiving agricultural information by monthly income groups

Income Range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
1000-5000	34 (85)	04 (10)	02(05)	40(100)
6000-10000	150 (93)	4 (2.48)	7(4.34)	161 (100)
11000-15000	119 (100)	0	0	119 (100)
16000-20000	69 (98.5)	1 (1.5)	0	70 (100)
21000-25000	23 (95.83)	1 (4.16)	0	24 (100)
26000-30000	6 (100)	0	0	6(100)
31000-35000	3(100)	0	0	3(100)
36000-40000	2(100)	0	0	2(100)
Total	412	6	7	425

Receiving information by education: The categorical value analysis shows that there was relation between the level of education and receiving tendency of the agricultural information of the respondents from the programme. The higher the education level was the higher rate of information receiving among the respondents (Table 5.4).

Table 5.4: Number and percentage of the farmers receiving agricultural information by education categories

Educational Qualification	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Illiterate	138 (94.52)	3(2)	5(3.42)	146 (100)
Primary	72 (98.63)	1 (1.36)	0	73 (100)
Secondary	108 (96.42)	2(1.78)	2(1.78)	112 (100)
SSC Passed	55 (100)	0	0	55(100)
HSC	26(100)	0	0	26(100)
Graduation	11(100)	0	0	11(100)
Post-graduation	2(100)	0	0	2(100)
	412	6	7	425

Receiving information by Age: The categorical value analysis shows that there was a relation between the ages of the respondents and their receiving trend of the agricultural information from the programme. A little difference was visible among the age group 66+ (Table 5.5).

Table 5.5: Number and percentage of the farmers receiving agricultural information by age groups

Age range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
18-25	79 (98.75)	0	1(1.2)	80 (100)
26-33	109 (99)	1(1)	0	110(100)
34-41	103 (94.49)	2 (1.83)	4 (3.66)	109 (100)
42-49	53 (96.36)	1 (1.8)	1 (1.8)	55(100)
50-57	40 (97.56)	0	1(2.43)	41(100)
58-65	21(100)	0	0	21(100)
66+	7(77.77)	2(22.22)	0	9(100)
Total	412	06	07	425

a.2. Addressing information needs

According to the 'Media Uses and Gratification Theory', media programmes gratify some sorts of needs of the audience including information, education and entertainment. It reveals that the highest percentage (90) of the respondents told that their information needs on various aspects of agriculture was fulfilled from the programme. Three percent of the respondents opined negatively while seven percent respondents could not tell about the same (Figure 4.2.1.2, Chapter Four).

Now, these findings are interpreted through the categorical value analysis to get a comparative situation of the farmer's addressing information needs in terms of the type of village, sex, income, age and education of the respondents.

Addressing information needs by type of village: There was a little differences between the transitional and traditional villages in terms of addressing needs of agricultural information

from the programme. The transitional villages were ahead of the traditional villages by 8 percent. Conversely, the traditional villages were somewhat ahead of 'no response' regarding addressing their information needs from the programme (Table 5.6).

Table 5.6: Number and percentage of the respondents opined on addressing information needs by type of village

Type of village	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Transitional	199 (94)	3 (1.4)	10 (4.7)	212 (100)
Traditional	184 (86)	9 (4.2)	20 (9.4)	213 (100)
Total	383	12	30	425

Addressing information needs by sex: The categorical value analysis shows that there was a little difference (about six percent) between male and female in terms of fulfillment of information needs from the programme. Male respondents' information needs were found fulfilled six percent more than their female counterparts (Table 5.7).

Table 5.7: Number and percentage of the respondents opined on addressing information needs by sex categories

Sex	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Male	236 (92.5)	9 (3.5)	10 (4)	255 (100)
Female	147 (86.4)	3 (1.76)	20 (11.76)	170 (100)
Total	383	12	30	425

Addressing information needs by age: The categorical value analysis shows that there was a little difference between the range of age and the addressing of information needs from the programme. As the age range goes higher, the tendency of addressing information needs go higher too (Table 5.8).

Table 5.8: Number and percentage of the respondents opined on addressing information needs by age groups

Age range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
18-25	71 (88.75)	2 (2.5)	7 (8.75)	80 (100)
26-33	100 (90.90)	5 (4.54)	5 (4.54)	110 (100)
34-41	96 (88)	1 (0.91)	12 (11)	109(100)
42-49	49(89)	2(3.63)	4(7.27)	55(100)
50-57	40(97.56)	0	1(2.43)	41(100)
58-65	20(95.23)	1(4.76)	0	21(100)
66+	7(77.77)	1(11.11)	1(11.11)	9(100)
Total	383	12	30	425

Addressing information needs by education: The categorical value analysis shows that there were differences in terms of fulfillment of information needs between educated and illiterate farmers. The table below shows that the percentage of the farmers having fulfillment of their needs went higher for the respondents having higher grades of educations (Table 5.9).

Table 5.9 : Number and percentage of the respondents opined on addressing information needs by education categories

Level of Education	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Illiterate	123 (84)	6 (4.1)	17 (11.64)	146 (100)
Primary	69 (94.5)	0	4 (5.47)	73 (100)
Secondary	99 (88)	4 (3.57)	9 (8.03)	112 (100)
SSC Passed	53(93)	2 (3.64)	0	55 (100)
HSC	26 (100)	0	0	26 (100)
Graduation	11(100)	0	0	11 (100)
Post-graduation	2(100)	0	0	2 (100)
Total	383	12	30	425

Addressing information needs by monthly income: The analysis shows that the programme information addressed the needs of the respondents belonging to the least income group BDT 1000-5000 less than those belonging to the higher income groups. In terms of number and percentage, the more positive answers were derived from the group belonging to BDT 11000-15000 regarding addressing of the information needs (Table 5.10).

Table 5.10: Number and percentage of the respondents opined on addressing information needs by monthly income groups

Income Range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
1000-5000	28 (70)	0	12 (30)	40 (100)
6000-10000	144 (89.44)	6 (3.72)	11 (6.83)	161 (100)
11000-15000	110 (92.44)	5 (4.2)	4 (3.36)	119 (100)
16000-20000	67 (95.71)	1 (1.43)	2 (2.86)	70 (100)
21000-25000	23 (95.83)	0	1 (4.17)	24 (100)
26000-30000	6 (100)	0	0	6 (100)
31000-35000	3 (100)	0	0	3 (100)
36000-40000	2 (100)	0	0	2 (100)
Total	383	12	30	425

a.3. Degree of addressing information needs

Regarding fulfillment of information needs on agriculture from the programme, the highest percentage of the respondents, 71, mentioned that the needs were sufficiently addressed. The percentage for the respondents opining ‘moderately addressed’ was about 19 (Figure 4.2.1.3, Chapter-Four).

Now, these findings are interpreted along with the categorical value analysis to get a comparative situation of the degree (sufficiently or moderately) of addressing information needs by type of village, sex, income, age and education of the respondents.

Degree of addressing information needs by type of village: The categorical value analysis shows that there were no significant differences between the traditional and transitional villages in terms of the degree of addressing information needs. However, the transitional villages were ahead of by about four percent in meeting their information needs 'sufficiently' and 'moderately' (Table 5.11).

Table 5.11: Number and percentage of the respondents opined on degree of addressing information needs by type of village

Type of village	Sufficiently N (%)	Moderately N (%)	No response N (%)	Total N (%)
Transitional	161 (80.91)	37 (18.59)	1 (0.5)	199 (100)
Traditional	142 (77.17)	40 (21.74)	2 (1.09)	184 (100)
Total	303	77	3	383

Degree of addressing information needs by sex: The analysis shows a little differences between the male and female respondents in terms of degree of addressing agricultural information needs received from the programme. The male respondents were about four percent ahead in that regard than those of the female counterparts (Table 5.12).

Table 5.12: Number and percentage of the respondents opined on degree of addressing information needs by sex categories

Sex	Sufficient N (%)	Moderate N (%)	No response N (%)	Total N (%)
Male	191 (80.93)	44 (18.65)	1 (0.42)	236 (100)
Female	112 (76.19)	33 (22.45)	2 (1.36)	147 (100)
Total	303	77	3	383

Degree of addressing information needs by age: The analysis reveals that the relation between degree of addressing of the information needs and the age of the respondents was somewhat diverse. More respondents (more than fourth-fifths percent) from the age group 18-

25 told that the degree of addressing their information needs was sufficient. Conversely, the least percent (43 percent) respondents from the age group 66 and above stated that the degree of addressing their information needs was sufficient (Table 5.13).

Table 5.13: Number and percentage of the respondents opined on degree of addressing information needs by age groups

Age range	Sufficient N (%)	Moderate N (%)	No response N (%)	Total N (%)
18-25	59 (83.1)	12 (16.9)	0	71 (100)
26-33	82 (82)	18 (18)	0	100 (100)
34-41	77 (80.21)	18 (18.75)	1 (1.04)	96 (100)
42-49	38 (77.55)	11 (22.45)	0	49 (100)
50-57	29 (72.5)	10 (25)	1 (2.5)	40 (100)
58-65	15 (75)	4 (20)	1 (5)	20 (100)
66+	3 (42.86)	4 (57.14)	0	7 (100)
Total	303	77	3	383

Degree of addressing information needs by educational qualification: The analysis reveals that relation between the degree of addressing of the information needs and the educational qualification was more among the SSC and HSC groups. The respondents who were SSC passed told of the degree of addressing their information needs sufficiently more than others with 94 percent responses and among HSC it was 88 percent. Conversely, the graduate and post-graduate respondents' degree of addressing their information needs from the programme were less sufficient than others (Table 5.14).

Table 5.14: Number and percentage of the respondents opined on degree of addressing information needs by education categories

Educational Qualification	Sufficient N (%)	Moderate N (%)	No response N (%)	Total N (%)
Illiterate	97 (78.86)	25 (20.33)	1 (0.81)	123 (100)
Primary	47 (68.12)	21 (30.44)	1 (1.45)	69 (100)
Secondary	79 (79.8)	19 (19.19)	1 (1.01)	99 (100)
SSC Passed	50 (94.34)	3 (5.66)	0	53 (100)
HSC	23 (88.46)	3 (11.54)	0	26 (100)
Graduation	6 (54.55)	5 (45.45)	0	11 (100)
Post-graduation	1 (50)	1 (50)	0	2 (100)
Total	303	77	3	383

Degree of addressing information needs by Monthly Income: The categorical value analysis between the income and degree of addressing information needs of the farmers show a relation. On the whole, the respondents from the higher income groups were found stating their degree of addressing information needs was sufficient than the respondents of lower income groups (Table 5.15).

Table 5.15: Number and percentage of the respondents opined on degree of addressing information needs by monthly income groups

Income Range	Sufficient N (%)	Moderate N (%)	No response N (%)	Total N (%)
1000-5000	17 (60.72)	10 (35.71)	1 (3.57)	28 (100)
6000-10000	104 (72.22)	38 (26.39)	2 (1.39)	144 (100)
11000-15000	93 (84.55)	17 (15.45)	0	110 (100)
16000-20000	59 (88.06)	8 (11.94)	0	67 (100)
21000-25000	21 (91.3)	2 (8.7)	0	23 (100)
26000-30000	6 (100)	0	0	6 (100)
31000-35000	2 (66.67)	1 (33.33)	0	3 (100)
36000-40000	1 (50)	1 (50)	0	2 (100)
Total	303	77	3	383

5.1.b. To figure out adoption of information and benefits from that

In this part, use of agricultural information by the farmers and benefits from that has been discussed in terms of various socio-economic factors. Categorical value analysis was carried out through cross tabulation in the relevant areas to signify relation or comparison between two different variables.

5.1.b.1. Percentage of use

More than three-fourths of the respondents used the agricultural information availed from the programme. The percentage for the farmers who did not use the information was 23.5. The remaining one percent respondents could not remember that (Figure 4.2.2.1, Chapter-Four). Now, these findings are interpreted through the categorical value analysis to get a comparative situation of using/adopting agricultural information by the farmers in terms of type of village, sex, income, age and education.

Using information by type of village: The categorical value analysis shows the differences between the transitional and traditional villages in terms of using information received from the programme. The result shows that 17 percent more people in the transitional villages used the agricultural information than those of the traditional villages (Table 5.16).

Table 5. 16 : Number and percentage of the respondents using information by type of village

Type of villages	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Transitional	178(84)	31 (14.6)	3 (1.4)	212
Traditional	143(67)	69 (32.4)	1 (0.6)	213
Total	321	100	4	425

Using formation by age: The categorical value analysis shows that there were differences between the age groups and their adoption level of agricultural information. It means, age was a factor in the process of using agricultural information received from the programme. The highest information adopters/users belonged to the age group 58-65 with more than 95 percent of the total respondents from this group. After this, the group belonging age 50-57 came as the information adopters with 83 percent respondents from this group. The least adopters belonged to 66+ age groups with 55.5 percent affirmative responses from this group (Table 5.17).

Table 5.17: Number and percentage of the respondents using information by age groups

Age range	Yes N (%)	No N (%)	No response N	Total
18-25	60 (75)	20 (25)	0	80 (100)
26-33	88 (80)	21(19)	1	110 (100)
34-41	75 (68.8)	32(29.3)	2	109 (100)
42-49	39 (71)	15 (27.2)	1	55 (100)
50-57	34 (83)	7 (17)	0	41 (100)
58-65	20 (95.2)	1 (4.8)	0	21 (100)
66+	5(55.5)	4 (44.5)	0	9 (100)
Total	N= 321	100	4	425

Using information by educational qualification: In terms of educational qualification, the categorical value analysis shows that level of information adoption varied as per the educational qualification. The analysis shows that, in almost all the cases, higher the educational qualification of the respondents corresponds with the higher information adopters. Most frequent responses from the FGDs regarding this issue went that the educated farmers were more aware of their needs and well-beings than those without education. Moreover, modern agriculture has become a matter of educated farmers in the opinion of a good many

farmers partaking FGDs. Thus, education interplays with the ability to use information in agriculture (Table 5.18).

Table 5.18: Number and percentage of the respondents using information by education categories

Educational qualification	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Illiterate	86(59)	57(39)	3 (2)	146 (100)
Primary	57(78)	15(20.5)	1 (1.5)	73 (100)
Secondary	90(80.3)	22(19.7)	0	112 (100)
SSC Passed	52 (94.5)	3(5.5)	0	55 (100)
HSC	25 (96)	1(4)	0	26 (100)
Graduate	9 (82)	2(8)	0	11 (100)
Post-graduate	2 (100)	0	0	2 (100)
Total	321	100	4	425

Using information by monthly income: The analysis shows that, on average, there was a relation between the level of income and use of information by the farmers. The financially advanced farmers were found using information more than those having less financial ability. The farmers belonging to the income group BDT 1000-5000 were the least users of the information availed from the programme. Conversely, the farmers belonging to income group BDT 11000 to above, were more users of the information which availed from the programme, more than 80 percent in every interval up to BDT 40000 and above (Table 5.19).

The respondents having poorer income are less user of information meaning that financial ability is an important matter for adoption of agricultural information. The findings show that the users of agricultural information increases in line with the higher ranges of income. The most frequent responses from the FGDs revealed that the financial ability was a significant determinant for the farmers as to use of information. Those who were affluent with multiple

sources of income could undertake venture to adopt information on a new thing or innovation in their agricultural practices. Such type of venture was not easy for the farmers of poorer financial ability because they were less interested to undergo challenges in their agricultural practice with an apprehension of 'making losses'. Some of the responses coming on the issue stated that the farmers having weaker financial condition usually remained undecided to adopt agricultural information lest they might have been affected by the same.

Table 5.19: Number and percentage of the respondents using information by monthly income groups

Income range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
1000-5000	21 (52.5)	19(47.5)	0	40 (100)
6000-10000	104 (64.6)	54 (33.5)	3 (1.86)	161(100)
11000-15000	104 (87.3)	14(11.76)	1 (0.84)	119 (100)
16000-20000	58 (82.85)	12 (17.14)	0	70 (100)
21000-25000	23 (95.83)	1 (4)	0	24(100)
26000-30000	6(100)	0	0	6(100)
31000-35000	3(100)	0	0	3(100)
36000-40000	2(100)	0	0	2(100)
Total	321	100	4	425

Information use by sex: The relation between sex and farmer's use of information has come out of the comparative findings which revealed that the male farmers were ahead of using information by 14 percent more than their female counterparts (Table 5.20). Most of the frequent responses from the FGDs show that the external exposure of the female population of the villages in Bangladesh are still limited comparing to their male counterparts. Due to male dominance and social system, female's mobility is usually limited to their own homes and nearby places. For this reason, though a good many female farmers watch the programme and get necessary agricultural information, the tendency of information use among them is limited.

Table 5.20: Number and percentage of the respondents using information by sex categories

Sex	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Male	207 (81)	48 (19)	0	255 (100)
Female	114 (67)	52 (30.58)	4 (2.35)	170 (100)
Total	321	100	4	425

5.1.b.2. Reasons for not using information

Of the respondents, who did not use the agricultural information, 62 percent opined that they 'had no ability' to use the same while 37.6 percent farmers 'did not need' the information. The remaining 15 percent respondents 'could not find the information befitting with agricultural atmosphere of their locality' (Table 4.2.2.iii, Chapter - Four).

5.1.b.3. Getting benefit by using agricultural information

The study shows a great benefit of using the agricultural information to the farmers. The survey reveals that 93.7 percent of the respondents, who used agricultural information from the programme, got some sorts of benefits. Of the remaining ones, 2.8 percent did not get benefits while 3.4 percent did not respond in that regard (Table 4.2.3.i, Chapter-Four).

Now, these findings are interpreted through the categorical value analysis to get a comparative picture of getting benefits by the farmers from the use of the agricultural information in terms of type of village, sex, income, age and education.

Benefit by type of villages: The categorical value analysis from the cross tabulation shows some differences between transitional and traditional villages in terms of getting benefits from the use of the agricultural information received from the programme. It reveals that the farmers of the transitional villages were ahead of getting benefits from the use of information by nearly 11 percent than the farmers of the traditional villages (Table 5.21).

Table 5.21: Number and percentage of the respondents getting benefits from use of information by type of villages

Type of villages	Yes N (%)	No (%)	No response (%)	Total (%)
Transitional	167 (55.5)	4 (44.4)	8 (72.7)	179 (55.8)
Traditional	134 (44.5)	5 (55.6)	3 (27.3)	142 (44.2)
Total	301 (100)	9 (100)	11 (100)	321 (100)

Benefits by sex: It reveals that the female farmers lag behind in terms of getting benefits from the use of information by four percent than their male counterparts. It meant that getting benefits from the televised information varied by sex. The FGD responses show that the female farmers were the less users of agricultural information, so their benefits were also inadequate (Table 5.22).

Table 5.22: Number and percentage of the respondents getting benefits from use of information by sex categories

Sex	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Male	195 (95)	4 (2)	6 (3)	205 (100)
Female	106 (91.4)	5 (4.3)	5 (4.3)	116 (100)
Total	301 (93.8)	9 (2.8)	11 (3.4)	321 (100)

Benefits by income: The categorical value analysis shows that getting benefits from the use of agricultural information depended on the range of income of the respondents. The percentage of benefits were mostly visible among the farmers belonging to the monthly income of BDT 11000-15000. From the respondents belonging to income range starting BDT 21000 and above, almost all the farmers got benefits though their number was insignificant (Table 5.23).

Table 5.23: Number and percentage of the respondents getting benefits from use of information by monthly income groups

Income range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
1000-5000	20 (6.6)	2 (22.2)	0 (0)	22 (6.9)
6000-10000	97 (32.2)	4 (44.4)	1 (9.1)	102 (31.8)
11000-15000	100 (33.2)	1 (11.1)	4 (36.4)	105 (32.7)
16000-20000	50 (16.6)	2 (22.2)	6 (54.5)	58 (18.1)
21000-25000	23 (7.6)	0 (0)	0 (0)	23 (7.2)
26000-30000	6 (2.0)	0 (0)	0 (0)	6 (1.9)
31000-35000	3 (1.0)	0 (0)	0 (0)	3 (0.9)
36000-40000	2 (0.7)	0 (0)	0 (0)	2 (0.6)
Total	301 (100)	09 (100)	11 (100)	321(100)

Benefits by educational qualifications: The categorical values analysis shows that getting benefits from the use of agricultural information depended on educational qualification of the respondents. It reveals that the illiterate farmers comprised the least benefit gainers, 27.6 percent. The percentage of the respondents getting benefits went higher for those who had higher level of education. In terms of quantity of the respondents and the percentage of benefit gainers, the most visible groups were the ‘secondary’ and ‘SSC and HSC passed’ (Table 5.24).

Table 5.24: Number and percentage of the respondents getting benefits from use of information by education categories

Education	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Illiterate	83 (27.6)	4 (44.4)	0 (0)	87 (27.1)
Primary	52 (17.3)	0 (0)	3 (27.3)	55 (17.1)
Secondary	83 (27.6)	4 (44.4)	4 (36.4)	91 (28.3)
SSC Passed	49 (16.3)	1 (11.1)	2 (18.2)	52 (16.2)
HSC Passed	24 (8)	0 (0)	1 (9.1)	25 (7.8)
Graduate	8 (2.7)	0 (0)	1 (9.1)	9 (2.8)
Post Graduate	2 (0.7)	0 (0)	0 (0)	2 (0.6)
Total	301 (100)	09(100)	11 (100)	321 (100)

Benefits by age: The analysis shows a mixed picture of relation between the age and getting benefits from the use of agricultural information. The table shows that the more visible age groups in getting benefits were from 26-33 and 34-41 age groups. In terms of percentage, the highest benefit gainers were from the 58-65 age groups, but the number of respondents was insignificant in this group (Table 5.25).

Table 5.25: Number and percentage of the respondents getting benefits from use of information by age groups

Age Range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
18-25	57 (18.9)	1 (11.1)	3 (27.3)	61 (19)
26-33	82 (27.2)	3 (33.3)	4 (36.4)	89 (27.7)
34-41	70 (23.3)	2 (22.2)	2 (18.2)	74 (23.1)
42-49	38 (12.6)	1 (11.1)	0	39 (12.1)
50-57	31 (10.3)	1 (11.1)	2 (18.2)	34 (10.6)
58-65	18 (6)	1 (11.1)	0	19 (5.9)
66+	5 (1.7)	0	0	5 (1.6)
Total	301(100)	9 (100)	11(100)	321 (100)

5.1.c. Comprehend impact of the programme from the perceived changes of the farmers in their agricultural practices

Under this objective, changes in agricultural practices of the farmers due to the programme exposure were analyzed. The perceived changes i.e. impact of the programme was compared among different socio-demographic features of the farmers by analyzing categorical values.

5.1.c.1. Perceived changes (impact)

The *HMOM* programme has brought about changes in the field of agricultural practices of the farmers according to 70 percent of the respondents. Of the remaining respondents, 16 percent told that there was no change while 14 percent did not know about the same (Figure 4.2.6.1, Chapter-Four).

Now, these findings are interpreted through the categorical value analysis to know about the perceived impact of the programme on the farmers in terms of type of village, sex, income, age and education.

5.1.c.2. Changes by type of villages: The perceived changes were more visible in the transitional villages. It reveals that, of the total respondents from the transitional villages, 77.35 percent respondents reported their changes in agricultural behavior after their exposure to the programme. Conversely, the changes were reported by 62 percent respondents from the traditional villages. It means that the programme had more impact on the transitional villages than the traditional ones (Table 5.26).

Table 5.26: Number and percentage of the respondents perceiving changes in their agricultural practice by type of village

Type of villages	Yes N (%)	No N (%)	No response N (%)	Total N (%)
Transitional	164 (77.35)	18 (8.5)	30 (14)	212 (100)
Traditional	132 (62)	51 (24)	30 (14)	213 (100)
Total	296	69	60	425

5.1.c.3. Changes by Sex: The categorical value analysis shows that the percentage of changes in agricultural practice was more visible among the male farmers than their female counterparts. The analysis shows that the male farmers went ahead by more than 9 percent than those of the female farmers in terms of agricultural behavior changes. The most frequent responses from the FGDs show that the female farmers were mostly confined to their house-hold agricultural chores with a little mobility around the home-stead lands, gardens and farms. In most of the cases of agricultural activities i.e. choosing seeds, planting crops, preparing land etc. male farmers adopt decision (Table 5.27).

Table 5.27: Number and percentage of the respondents perceiving changes in their agricultural practice by sex categories

Sex	**Yes N (%)**	**No N (%)**	**No response N (%)**	**Total N (%)**
Male	187 (73.3)	36 (14)	32 (12.54)	255 (100)
Female	109 (64)	33 (19.41)	28 (16.47)	170 (100)
Total	296	69	60	425

5.1.c.4. Changes by education: The change in agricultural behavior was more evident for those having education. Tendency of changes gradually increased for every advanced level of education from primary to graduation. For the post-graduation, the number of the respondents was very trifle. It means that bringing changes in agricultural practice by using televised information requires some sorts of educational background of the framers. The more educated the farmers are the more aware of their well beings and surrounding atmosphere ((Table 5.28).

Table 5.28: Number and percentage of the respondents perceiving changes in their agricultural practice by education categories

Level of education	Yes N (%)	No N (%)	No response N (%)	Total (%)
Illiterate	71 (48.63)	42 (28.76)	33 (22.60)	146 (100)
Primary	51(70)	11 (15)	11 (15)	73 (100)
Secondary	88 (78.5)	12 (10.7)	12 (10.7)	112 (100)
SSC Passed	50 (91)	4 (7)	1(2)	55 (55)
HSC Passed	24(92)	0	2(8)	26(100)
Graduate	11 (100)	0	0	11(100)
Post-graduate	1 (50)	0	1 (50)	2 (100)
Total	296	69	60	425

5.1.c.5. Changes by monthly income: In terms of financial ability, the change in agricultural behavior of the farmers varied. The degree of change was negligible for both the bottom most income group and the last three highest layers. The changes were more evident for the farmers belonging to monthly HH income groups ranging from BDT 6000-10000 to the last income group (Table 5.29).

Table 5.29: Number and percentage of the respondents perceiving changes in their agricultural practice by monthly income groups

Income range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
1000-5000	10 (25)	14 (35)	16 (40)	40 (100)
6000-10000	101 (62.73)	36 (22.36)	24(14.90)	161(100)
11000-15000	96 (80.67)	8(42.10)	15 (12.60)	119 (100)
16000-20000	57 (81.42)	9 (12.85)	4 (5.71)	70 (100)
21000-25000	22 (91.66)	2(8.33)	0	24 (100)
26000-30000	5(83.33)	0	1(16.66)	6 (100)
31000-35000	3 (100)	0	0	3(100)
36000-40000	2(100)	0	0	2 (100)
Total	296	69	60	425

The frequent FGD and KII findings show that the farmers having higher HH income mainly consider farming as a supplementary occupation and they perform on their own way. They possess multiple occupations at a time. They generally pay little attention to particular agricultural trade. On the contrary, the farmers having poorer income generally do not venture to adopt information received from any source in the face of apprehended loss in future. So, the changes of agricultural behavior among them are negligible.

5.1.c. 6. Changes by age: In terms of the age groups, the changes in agricultural behavior were more evident for the farmers belonging to 26-33 and 34-41 ages. The percentage of changes gradually declined for the higher age groups (Table 5.30).

Table 5.30: Number and percentage of the respondents perceiving changes in their agricultural practice by age groups

Age range	Yes N (%)	No N (%)	No response N (%)	Total N (%)
18-25	58 (72.5)	12 (15)	10 (12.5)	80 (100)
26-33	82 (74.54)	18 (22.5)	10 (9)	110 (100)
34-41	75 (68.80)	20 (18.34)	14 (12.84)	109(100)
42-49	35 (63.63)	8 (14.54)	12 (21.81)	55 (100)
50-57	29 (70.73)	7 (17)	5 (12.19)	41(100)
58-65	14 (66.66)	1(4.76)	6 (28.57)	21(100)
66+	3 (33.33)	3 (33.33)	3 (33.33)	9 (100)
Total	296	69	60	425

The frequent FGD responses show that the people belong to 18-40 age groups were the mostly engaged farmers in agriculture. The reason behind this is that the agricultural activities by

nature are very laborious which require energetic people. The aged people and the females are generally engaged in soft agricultural activities which can be performed around the home-stead.

5.2. Analysis on the basis of theoretical framework

In this section, analyses were made on the basis of the theoretical framework of the study. The study has been based on the theoretical essences of both the mass communication and development. From the mass communication, some perspectives i.e. 'Media Effects (one-step, two step and multi-step flow)', 'Media Uses and Gratification', 'Diffusion of Innovation', 'Cultivation Theory' and the 'Normative Views' were the base of the study in the following ways:

5.2.a. Media and communication perspectives

5.2.a.1. Media Effects: Information Flows around *HMOM*

Reflection of the media effect theories was noticed in the study findings. Various types of information flow were figured out. Influence of the opinion leaders in the process of the farmer's access to, and adoption of, agricultural information was documented.

There were some specific flows of information that came out of study include:

a. From the HMOM programme/presenter to the farmers
b. From the farmers to the HMOM programme designer cum presenter
c. From the opinion leaders to the farmers
d. From the farmers to the farmers

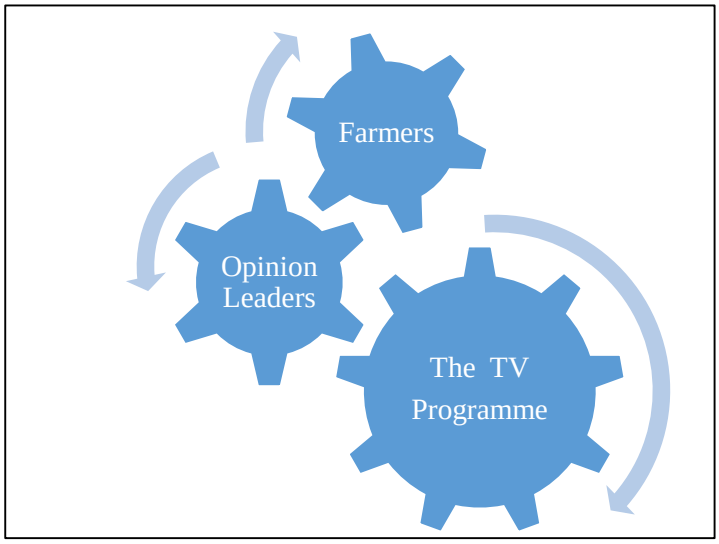


Figure 5.1: Information flow around *HMOM* and the audiences

Thus, the information flows included the one step-flow, two-step flows and multi-step flows. The findings from the FGD, KII and the content analysis show that the programme not only diffused agricultural information proactively (programme to farmers) but also gathered information from the farmers (farmers to the programme). For example, the programme presented success stories of many farmers on various types of agricultural innovations and activities whether the successful farmers' interviews were covered.

It reveals, the opinion leaders played effective role in the process of adoption of the information by the farmers since about three-fourth (73 percent) of the respondents consulted with the opinion leaders whether they used the availed information from the programme. As the opinion leaders, the farmers relied on the family members, experienced fellow farmers and the friends more than others. It implies, the farmers depend largely on the relatives and family members for undertaking important decisions in their agricultural practices (Table 4. 2.2.iv, Chapter Four).

It reveals that the farmers having watched the programme disseminated information among the fellow farmers who didn't exposure. Thus, agricultural information from the programme transmitted from farmers to the farmers. Some of the farmers having better education and financial ability functioned as the 'resource farmers' for others while their agricultural farms functioned as the 'power houses' in the opinion of some of the farmers undergoing FGD. Many of the resource farmers–i.e. Rafiqul Islam from Rampur village, Natore District; Keratamt Ali from Mulghar village, Bagerhat District; Rahmot Ullaha from Cox's Bazar District, Firoz from Jenaidah District and many others like them were highly motivated by the programme. According to the *HMOM* team members, the successful farmers were called the 'star farmers' and their activities were projected in the programme as success stories. Later, those farmers became model for many others to initiate new ventures of agricultural activities. Even after

completion of the programme, they did maintain relationship with the programme presenter and asked for various types of suggestions and cooperation in their agricultural activities. Being enriched in information and knowledge by consulting with the programme presenter, they disseminated the same among the fellow farmers. Thus, agricultural activities on different trades were dispersed which can be a result of the 'ripple effect'. Apart from these, farmer's access to agricultural information and adoption of the same caused by 'synergic effect' in many ways. The farmers got information from the programme, consulted with the opinion leaders, were encouraged by the success of other farmers (Table 4.2.2.ii, Chapter Four), and above all motivated by the 'presenter's credibility'. All these functioned as the aspects of 'synergic effect' on farmer's behavior change and decision making in agricultural activities.

5.2.a.2. Farmer's access to and use of information and gratification

According to the 'Media Uses and Gratification Theory', media programmes gratify some needs of the audience of which information, entertainment and education are a few important factors. These three aspects can be termed as 'info-tainment' which was reflected in the study.

Addressing of 'info-tainment' needs: The quantitative survey reveals that almost all the viewers (97%) of the programme got necessary information from the programme and 90 percent of the respondents' information needs on various aspects of agriculture were fulfilled from the programme (Table 4.2.1.v & Figure 4.2.1.2, Chapter-4). Of the respondents, 97 percent were satisfied with the agricultural information availed from the programme (Figure 4.2.1.4, Chapter 4). Of the respondents, 93.6 percent (Table 4.2.1.iii, Chapter-4) learned about at least one of the aspects of agriculture, meaning they have been educated from the programme on how to perform agricultural activities. According to 94 percent respondents (Figure 4.13, Chapter Four), the programme contributed to farmer's entertainment. According to the KII, the farmers of Bangladesh are usually neglected in television programmes. Their interests, emotions and

feelings are not depicted with due importance and honour in the society and even in the media. The corporate media concentrate on their own agenda while the sate-run BTV mainly serves the government activities by tradition. In this reality, HMOM programme has been putting stress on the farmer's entertainment. The FGD and KII findings show that the 'Farmer's Eid Delights', 'Returning to the Roots', 'Farmer's World Cup', etc. episodes were so interesting and attractive that the audiences used to watch them amidst business. Many farmers stated, "We love to watch *Farmer's Eid Delights* programme in lieu of Bangla film, which is generally presented on many television channels after the eid day as a great source of entertainment". According to some of the KIIs, such exceptional arrangement to entertain the farmers with their active participation facilitates their position in the society. This programme addressed the 'info-tainment' needs of the farmers and advocated for their inclusion in the media as well as in the national development.

5.2.a.3. Diffusion of agricultural innovation: farmer's acceptance or rejection

According to the study findings, *HMOM* programme facilitated 97 percent farmers' accessibility to necessary agricultural information which played role in creating awareness and developing knowledge among the farmers about different aspects of agriculture. After having access to necessary information, the farmers evaluated the significance of the information by consulting with the fellow farmers, relatives and family members as to adoption of the same. Most of the farmers (76 percent) adopted the information availed from the programme as per their capacity, necessity and expectation to change their socio-economic condition. In the process of adopting the agricultural information, the opinion leaders played influential role since about three-fourth (73 percent) farmers used to talk to the opinion leaders (family members, relatives, friends, other farmers, UP members and government officials) regarding utility of the adoption of an innovation (Figure 4.2.2.2, Chapter 4).

So, the findings suggest that the farmer's cognition of information has been adopted in varied manner. However, the farmers who did not adopt the agricultural information, mentioned a few reasons including their financial inability, incompatibility of the information with agricultural atmosphere of the locality and seemingly needless of the information to some of the farmers.

5.2.a.4. Cultivation theory: farmer's exposure to *HMOM* and changes in agricultural practices

According to the cultivation theory, the level of exposure to television is related to develop perception of reality. The study reveals that level of the exposure to the *HMOM* programme is linked with the behavior changes of the farmers in their agricultural activities.

Table 5.31: Number and percentage distribution of the respondents perceiving changes in their agricultural practice by level of exposure to the *HMOM*

Exposure level	**Responses on changes in agricultural practice**			**Total N (%)**
	Yes N (%)	No N (%)	No response N (%)	
Regular	172 (79)	17 (8)	29 (14)	218 (100)
Almost regular	61 (66.30)	19 (20.65)	12 (13)	92 (100)
Sometimes	61 (57.54)	30 (28.30)	15 (14.15)	106 (100)
Occasionally	2 (22.22)	3(33.33)	4 (44.44)	9 (100)
Total	296	69	60	425

It reveals that the changes of the farmers varied as per the degree of engagement of the farmers with the programme. Regular exposure to the programme brought changes to more farmers (79%) while the change for the farmers having exposure 'almost regular' was 66 percent. The percentage for the farmers having exposure 'sometimes' to the programme was 57.5 while the changes in agricultural behavior were less reported among the farmers having 'occasional'

exposure to the programme with 22 percent (Table 5.31). The aforesaid findings reflected the essence of the cultivation theory that the level of exposure determines the effects on the viewers. The programme had more impact on the 'heavy' viewers than others.

5.2.a.5. Normative viewes: social responsibility of media

In the normative views, it is argued that the media in a free society play significant role in the free flow of useful information to the people. According to 97 percent respondents (Table 4.2.1.v, Chapter Four), the programme provided the farmers with necessary agricultural information on growing different types of crops and various aspects of sustainable agriculture. The programme organized farmers for co-operative farming, presented agricultural innovations and experiences through sharing of success stories. Through information, the programme educated the farmers and made them aware of their rights as citizens. The farmers could know about the effects of climate change, environment friendly agriculture, cultivating disaster resilient crops and many other aspects of modern agriculture. The farmers were motivated to use information technology and encouraged the young generation toward agricultural activities and made the farmers confident about their activities (Figures 4.2.5.3, 4.2.5.5, 4.2.5.6, 4.2.6.1 & Tables: 4.2.1.ii, 4.2.1.iv, 4.2.1.vi, 4.2.2.i, 4.2.3.ii; Chapter Four). The frequent responses from all the FGDs show, the programme has engaged the students from schools, colleges and universities so that bondage is created between the farmers and the technology-oriented urban youths. The 'farmer's budget' programme has created a platform of sharing the issues of the farmers with the government officials and the higher policy makers. All these role of the programme go with the social responsibility of the media.

5.2.b. Development Perspectives

5.2.b.1. Participatory approcah

Previously, it was thought that the development communicators' role was limited to design and disseminate the messages only. It was not a matter of concern whether the messages were really useful, understandable and effective for the targeted audiences. Thus the information transformation was mainly one way traffic–monologic. According to Freire (1972), the information transformation should be dialogic: from the development communicators to the targeted audiences and from the targeted audiences to the development communicators. He also emphasized on dialogue which not only deepen understanding but also function as the part of making a difference in the world. Dialogue in itself is a co-operative activity involving mutual sharing with respect.

The process is important and can be seen as enhancing community and building social capital and to leading the people to act in the ways that make for justice and human flourishing. The *HMOM* programme is found extensively participatory where the interactions between the programme designer cum presenter and the farmers, the subject of the programme, come closer and interact each other face-to-face. The content analysis of the selected episodes shows that the farmers were interviewed even in the farm-fields, muddy plough land, poultry farms and other place of agricultural activities. The farmers were given emphasis in making the episodes. Both the male and female farmers' interviews were used in the programme episodes where their issues were reflected vividly. In the 'Farmer's Budget' programme, the farmers became the sources of communication while the high policy makers and the government officials were the receivers. The farmers played active role in presenting their voices before the Members of the Parliament (MPs), Ministers, Deputy Commissioner (DC), Upazila Nirbahi Officer (UNO), Local Government Representatives (LGR) and other power elites. Under the facilitation of the

programme presenter, Shykh Seraj the farmers proactively raise their voices regarding the agricultural issues and challenges. Thus, the programme contributes to develop a mutual understanding among the farmers and the country's policy makers through effective dialogue.

5.2.b.2. Sustainability of agricultural development

Sustainability of agricultural development is a multidimensional phenomenon. It includes carrying out agricultural activities in environment friendly and inclusive manner which continuously contributes to economic transformation and employment generation considering the welfare of the next generation.

Environment friendly agriculture: In the study, 'agricultural sustainability' denotes carrying out agricultural activities without causing harm to the natural environment so that the next generations are not troubled. Around this notion, some aspects including proper use of fertilizers and pesticides, using organic/natural fertilizers and techniques of preparing the same, bad effects of harmful chemicals in farming, soil health, farmer's interests in producing and using bio-fertilizers, learning about environment friendly agriculture came out of the study (Table 4.2.1.ii, 4.2.1.iv, 4.2.1.vi & 4.2.2.i; Chapter Four) on which the farmers received information from *HMOM*, learned about those matters and became aware of the same. The FGD and KII findings show that the farmer's knowledge on these issues improved after watching HMOM which would help them to preserve agricultural atmosphere and the products in future according to opinion of the KII.

The farmers told that they have changed their traditional agricultural practices and adopted proper use of fertilizers and pesticides, considering soil quality, consultation with the experienced farmers, taking care of environment, adoption of natural way of pest control, adoption of agricultural technology, cooperative farming and growing disaster resilient crops

came one after another as the areas where the behavior of the farmers changed according to their opinion. All these factors go for 'sustainable agricultural' development Bangladesh.

Inclusion: Sustainable agricultural development is further related to the social inclusion which impacts on balanced and sustainable socio-economic development, employment generation, human resource development and promotion of equal opportunities. The programme's prime targets are the bottom-most layers of the society, the farmers who are generally excluded from the urban-based development, governance and management. They are generally excluded from the content presentation of the mainstream media in Bangladesh since the media takes interest on the portrayal of power and politics. In this reality, the programme included the issues of the farmers as a big agenda of the coverage. Such inclusion steps the farmers forward to a balanced and sustainable development. However, there are many villages and the farmers yet to be covered directly by the programme.

Economic transformation: The programme has contributed to the economic transition of the farmers in the country in the opinion of the FGD and KII respondents. Many farmers, previously relied on only one income generating activity(IGA) in agricultural sector, was found adopting multiple IGAs which facilitated them to transform from 'survival' to 'surplus' economy. Many farmers were found having adopted multiple agricultural activities. For example, in all the sample villages, the farmers were found adopted paddy cultivation, fishery, poultry raising, livestock rearing, nursery, fruits cultivation, homestead gardening and many other activities as per their capacities. Many farmers opined that they did not leave any place, even adjacent to their homes, unused after watching the programme. The quantitative survey also supported the findings on the access to information and use of information in the multiple agricultural systems.

Employment generation: Although the direct contribution of agriculture sector in the GDP is in the decreasing trend, its contribution to the sectors depending on agriculture is on several

folds. The FGD and KII findings show that the programme has contributed largely in creating employment in different agro-based activities. According to some of the Key Informant Interviewees, the programme has facilitated value chain of different identical crops which has ultimately created newer opportunities of work for many people. These activities have some impact on the national economy of Bangladesh. For example, a few instances of value chains created by the programme are mentioned below:

Example One: From paddy to puffed rice

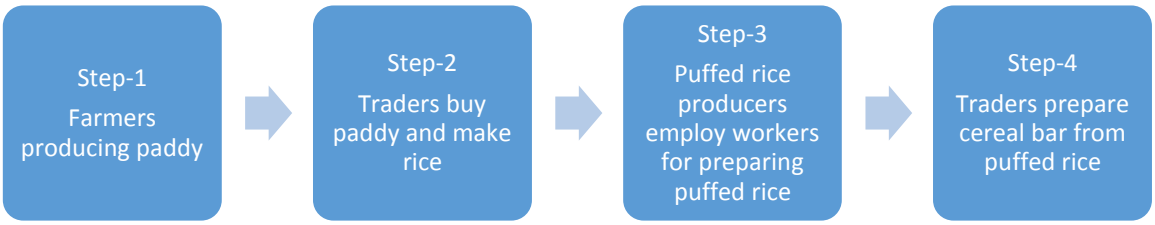


Figure 5.2: From paddy to puffed rice

Example Two: From milk to sweet, cheese and ghee

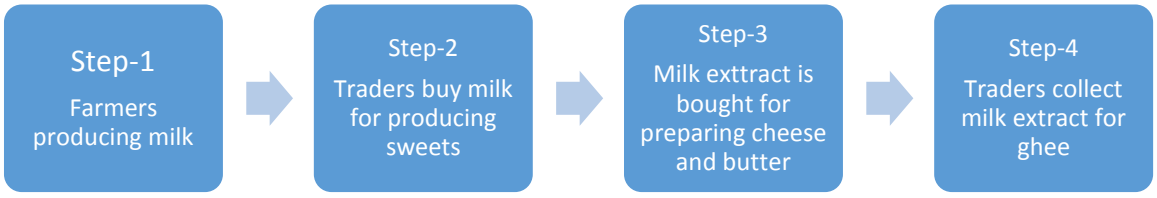


Figure 5.3: From milk to sweet

Example Three: From chicken to fast food

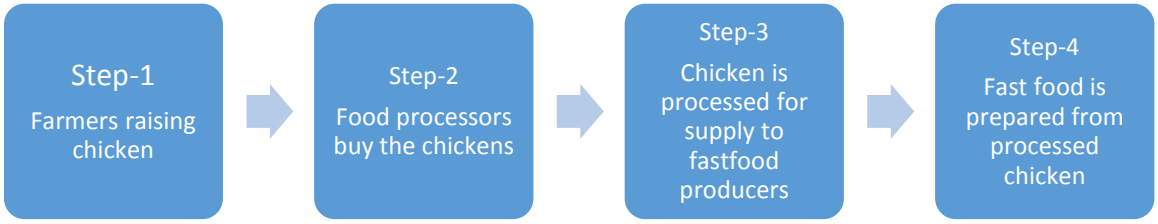


Figure 5.4: From chicken to fast food

In all the stages of these value chains of the agro-products, huge human resources are required. Thus, unemployment is reduced from growing opportunities in different trades around agriculture sectors. Many young people have become motivated to initiate various trades in agricultural activities which have employed thousands of people and created employment. Bangladesh, by nature, a labor-intensive country requiring huge employment in both rural and urban settings. The programme, in the opinion of the FGD and KII respondents, have bridged the gap of unemployment through facilitating diversified agricultural activities. The programmes depicted many success cases in the aforesaid fields which have inspired the young people and the farmers.

5.2.b.3. Human development: capabiliy and empowerment of the farmers

In this conceptual framework, it was explored whether programme increased the information and understanding level of the farmers through disseminating necessary information and education. It was searched out how the programme developed capacity of the farmers, created network and linkage with the fellow farmers, the service providers and the greater communites. It was also explored how the programme contributed to empowering the farmers through developing their awareness level on the life related isuses, tranmsfered knowledge on agro-technologies, faciliated integarted approaches to achieve the goals through social inclusion.

Capability:

Nobel laureate economist Dr. Amartya Sen (1997) emphasise on human capabilities for development. Acoording to him, capability is developed through literacy, information and awareness. Human capital and social capital are two important factors for human development. Human capitals mean developing skills, knowledge level and ability to choose the right decisions from the alternatives. On the other hand, the social capitals mean the linkage/networking, identity and the social organizations of the individual which contribute to the collective development. The study shows that the farmer's information and knowledge on agriculture have developed which promoted their capacity to produce more crops and thus increased their purchasing capacity. The programme created a platform of intercation for the

farmers with the government officials and other service providers which developed their capacity to approach to the authorities and claim their rights. Such activities contributed to increasing capacity of the farmers to develop professional linkage with the serivice providers and also among the fellow farmers. They have jointly planned and implemneted agricultural schemes, for example, cooperative irrigation and fishing project (Episode 301) . Thus, farmer's networks were formed in a manner of 'social capital' which supported their collective gains and effective social actions rather than individual benefits.

Empowerment:

The term 'empowerment' comes from the word 'power'. So, before discussing on empowerment, we should understand what power means. Rawlands, a renowned feminist activist and development expert, has written the book 'Questioning Empowerment (1997)'. In the book, she has outlined different meanings of power at various levels. She argues that power can take the forms of 'power over' as controlling power; 'power to' as productive power; 'power with' as collective power with a group; and 'power from within' as self-acceptance and self-respect (p.13).

She states:

> "Using the conventional definition, of 'power over', empowerment is bringing people who are outside the decision-making process into it. This puts a strong emphasis on participation in political structures and formal decision-making and, in the economic sphere, on the ability to obtain an income that enables participation in economic decision-making. Individuals are empowered when they are able to maximize the opportunities available to them without constraints. Within the generative, 'power to' and 'power with', interpretation of power, empowerment is concerned with the processes by which people become aware of their own interests and how those relate to the interests of others, in order both to participate from a position of greater strength in decision-making and actually to influence such decisions" (p.14).

The *HMOM* programme, according to the FGD and KII respondents, created awareness among the farmers on dignified living and rightful position in the society by contributing to enhance agricultural productivity and enabling the farmers to transform their human capital into greater economic prosperity. Being motivated by the programme, the farmers have initiated multiple cropping and combined agricultural activities in various agricultural sub-sectors. Many farmers are now aware of their children's education, individual and familial health, rights-related issues, improved dwelling, savings, healthy living, food and nutrition since their purchasing capability has increased as per the opinion of the FGD participants and KII respondents. The farmers are now being invited to the village arbitrations where their opinions are considered important. After disseminating the success stories of the farmers in varied agricultural activities, their visibility has increased. They are, at present, honoured by the fellow farmers and the opinion leaders of the communities. Some of the FGD participants in Dinajpur District stated, "We are honoured in the villages since people think we are not alone. A TV channel stands by our side which depicts our issues to the nation".

Most of the FGD participants in Natore said, "Previously some of the government officers did not value us and even they refused to talk to the farmers. At present, the situation has changed. After holding a *HMOM* programme in this locality, the government officials are now treating us goodly. Even, they offer us chairs to sit in their offices which was out of our imagination previously". Some of the FGD participants told in Hobiganj and Dinajpur Districts, "The farmer's budget programme has taught us how to raise our voice on agricultural issues and claim due rights to the political leaders and the higher government officials". Some FGD participants in Tangail District said, "He (the programme presenter) brought the government officials in the crop fields to show the farmer's condition and the agricultural activities which facilitated us to interact face-to-face with them". Thus the programme made bridge between the agricultural service providers, policy makers and the farmers leading to develop mutual understanding.

However, according to the FGD participants and KII respondents, including the programme designer and the presenter; the farmers of the country lagged behind to form a national platform to campaign for the favourable agriculture policies and strategies. This relates with the 'power over' as controlling power on the national policy makers. For example, the farmers in general have no mentionable control over the price of their products, agricultural policies, budgetary allocations and greater welfare for the communities.

Agricultural budget, farmer's budget: The content analysis of the 'Agricultural Budget, Farmer's Budget' programme held on 06 May 2017 at Brahmanbaria District shows that the Food Minister, Member of Parliament (MP), Deputy Commissioner (DC), Upazila Nirbahi Officer (UNO), Union Parishad Chairman, farmer's leaders, relevant government officials and several thousand farmers attended the programme. They interacted face- to-face with the facilitation of Shykh Seraj which was telecast live on the *Channel i.* The Food Minister in his speech claimed that the *HMOM* programme facilitated the policy makers to rethink the budgetary allocation for the development of agriculture sector through presenting the pragmatic issues in this field by capturing voice of the farmers. According to him, the government became informed of the farmer's issues which contributed to developing farmer's friendly budgetary allocation in the national budget. In the programme, the UNO, the Chief Executive of the government at the sub-district level, welcomed the farmers in his office for any sort of cooperation. The content analysis of the 'Farmer's Budget' held on 29 April 2017 in Pirozpur District shows that the Minister for the Ministry of Industry asked the relevant officials to note down the farmer's issues coming from the face-to-face interactions facilitated by Shykh Seraj. Similarly, the content analysis of the programme held on 22 April 2017 in Chandpur District shows, the ICT Minister announced that his ministry would provide five thousand smart cards for which the farmers would be able to sell their rice directly to the government without

interference of the intermediaries. According to the Key Informant Interviews (KII), such public declarations by the key government officials and the policy makers made the farmers more confident and enabled them to claim their due rights in the relevant government service providers. Such public statements have also created obligations for the government officials to serve the people.

The programme brought the senior officials, highest policy making bodies, farmer's leaders, civil society members and the common masses into a single platform of interaction which facilitated the farmers to raise their voices before the policy makers. In this way, the programme contributed to empowering the farmers by 'pushing' the policy makers from their top position to reach the farmers, the bottommost population in Bangladesh, and by 'pulling' the farmers to come forward from their backward position to the frontline for raising their voices.

The programme, though in limited ways comparing to the male, encouraged the female farmers by presenting their contribution to agricultural activties explicitly in the areas of homestead gardening, live assets rearing, poultry raising, rooftop gardening, preserving seeds and growing seedlings according to the findings from the FGD, KII and content analysis. Such sort of portrayl faciliated women empowerment. The young urban students of various instituions were oreinted on diverse agricultural activties and the bone-breaking labour of the farmers through *Firey Cholo Matir Taney* (Revising to the Roots) programme. This programme linked the students with the farmers by encouraging them to visit the villages and take part in agricultural activties together with the farmers. In this way, the young urban studnets living in the capital city were oriented with different stages and techniques of agricural activities the farmers generally carry out.

Appropriate technology: The concept of human development in the fields of agriculture in the modern era also goes with the notion of using 'appropriate technology'. The programme transferred various types of technological knowledge on agricultural activities for which the

farmers got access to technological information. For example, in many episodes, use of 'drum seeders', 'harvesters', and 'power tillers' were depicted which encouraged the farmers to adopt the technologies. Thus, the programme encouraged the farmers to adopt agricultural technologies in their activities.

Knowledge-based economy: The programme, according to the KIIs, has contributed to 'knowledge-based economy' which has fostered the process of socio-economic development of the farmers in the country. The knowledge-based agriculture facilitated crops production and distributions to the wider markets. Use of information from *HMOM* on agriculture consisted of the application of the knowledge and information in the marketing process of the agro-products. The findings suggested that the farmers were motivated to adopt multiple agricultural activities concurrently as their sources of income generation. As a result, they became successful in the broader sense. In case of making loss in one agricultural trade, they were backed up by the alternative ones. Thus, the farmers' overall socio-economic uplifting facilitated them to transform their living condition from the 'survival' to the 'surplus' economy.

Combined approach: In the study areas, many farmers were found adopting 'combined approach' of agricultural production – the food grains in the plain portion of a land, fruits in the comparative high boundaries, and vegetables in a corner of the same land. Similarly, many farmers were found raising poultry besides their ponds that used the poultry-drops as the fish feeds. The FGD participants stated that the farmers tried to ensure the maximum use of a piece of land or a farmstead due to rapid declination of agricultural land in the country. According to the FGD participants, previously the farmers were not aware of using the land properly. Exposure to *HMOM* motivated them to utilize their lands properly by adopting combined crop cultivation system. This allowed the farmers to earn several folds higher than the single cropping. According to some of the KIIs, this approach reduced the risks of the farmers. If the farmers were looser in a particular crop, they could recover from other.

5.3. Programme-based analysis

5.3.1. Relevance of the programme

The study reveals that the agricultural subjects presented in the programme went matching with the felt needs of the farmers. The agricultural information presented was effective for the farmers for producing expected crops in their expected sectors. The problems of the farmers as well as the agriculture sector were portrayed properly after gathering detailed information on the same from observation and interaction with the farmers. In order to understand the farmer's issues and agricultural problems, relevant experts and the experienced farmers were consulted by the programme planner, producer and presenter. Thus, the subjects of the reporting were selected which reflected the needs of the farmers in particular and the agriculture sector in general. However, it requires more comprehensive research prior to covering the issues and aspects of the agriculture sector and the farmers since the subject is a technical one.

5.3.2. Programme strengths and limitations

a. Strengths

Language and message: One of the salient features of the programme was the presenter's easy style of communication since both the quantitative and qualitative data showed that the language of the presenter was legible and communicative. The messages were constructed in a way so that the farmers irrespective of educational background could easily understand what was communicated.

Source/presenter: Personality, credibility, knowledge, expertise in television journalism and in agriculture, and above all attitude of the programme presenter, producer and planner were the key strengths for drawing attention of the audience.

Programme set-up: Visit to the *Channel i* and interaction with *HMOM* team showed that the programme had an independent set-up with adequate technical resources and logistics. The

team members were found cordial, efficient, knowledgeable, capable and dedicated to their profession. The team members irrespective of diversity of expertise and role were found working together in consultation with each other. Before commencing a new assignment, the reporters, video editors, technical support staffs and the researchers used to sit together and make detailed plan under the guidance and supervision of Shykh Seraj. However, the team lacks competent presenter other than Shykh Seraj, so there is no second line of defense developed so far.

Programme timing: The programme is broadcast at 9 pm which is considered television prime time. During this period, a TV programme is viewed by the largest chunk of audience. So, from this point, the programme could reach wider audiences. Being a prime time programme, its coverage went tremendous and popularity was unparallel according to the KIIs. The findings from the KIIs showed that the influence and ownership of Shykh Seraj as the Head of News and one of the Directors of the channel made that possible. They also viewed that coverage of agriculture news has not been appreciated by most of the channels of Bangladesh, except the *Channel i*.

Separate beat: Due to *HMOM* programme and the presenter, development journalism particularly the agriculture reporting has become a distinct 'beat' in the *Channel i* leapfrogging many other entertainment programmes. This has become a source of inspiration and example for other TV channels and newspapers, too.

Audience feedback: The programme always values feedbacks of the audience by receiving their phone calls, comments and suggestions. Detailed contact address of the presenter and the programme is displayed on the screen and uttered by the presenter so that the audience can reach the programme by email, letter and even thorough phone call. Apart from this, the *HMOM* team conducts small scale studies to know the responses of the audience.

Programme production and branding approaches: The programme is planned jointly with the team members and produced in a participatory manner where the farmers are portrayed significantly. The field-level production approach of the programme has given it a distinct identity. The *sting* (background music) is the combination of a patriotic song by the renowned singers and a thrilling music. The presenter was seen anchoring the programme wearing an identical dress and get-up. As a dress he chose green-coloured shirt depicting the nature, and a soil-coloured trouser which brought him close to the farmers and gave him a distinct identity as an agriculture journalist. Many FGD participants (both the male and female) stated, "We can easily distinguish the programme from others just hearing its background music and song". Some of the KIIs stated that the background song is a patriotic one of which the lyrics were heart-touching and the composition was melodious. The title of the programme *Land and People in Heart* is also touching. All these aspects contributed to branding the programme according to the KII respondents.

b. Programme limitations

Personalized: The programme presenter, Shykh Seraj, has got high popularity among the audiences. The frequent responses from the FGD showed that the farmers watched the programme mainly for being fond of him. The findings from KII substantiated that. This unparalleled popularity is a significant achievement for the presenter individually but it signifies collective failure in developing alternative ones who could substitute the existing presenter in his absence. The findings show that the programme is presenter-centric meaning that people are very much fan of him. The audience will not easily accept the alternative ones since the existing presenter had a great influence on them. This massive acceptance among the audiences might be a momentous success for the presenter himself, but this is simultaneously a big challenge to the path of continuing the programme with equal popularity in the absence of Shykh Seraj.

Portrayal of female farmers: The female farmers at the initial stage of the programme were not equally focused as those of the male farmers due to *purdah* system and male dominance.

Feelings of farmer's deprivation: There are some heartaches among the farmers who were not covered by the programme. The farmers of many villages, where the HMOM team could not visit or hold programmes involving the farmers, have feelings of deprivation. They consider the villagers fortunate where the team visited and covered their success stories. This frustration was more noticed among the people of the hilly region.

Female reporters: The team lacks of female reporters at the field who could be a potential source of interaction with the female farmers and present their issues. However, the agricultural desk of *Channel i* is led by a female newsroom editor.

Programme frequency and duration: The frequency and duration of the programme is limited comparing to the expectation of the farmers. The highest percent (more than 61%) farmers were not satisfied with the length of the programme.

Coverage: The coverage of the programme is yet to reach some areas due to shortage of frequency, cable connection and lack of electricity.

Influence of the foreign serials: Sometimes, some of the foreign serials hinder the exposure of the programme since some of the female members of the families prefer to watch the serials and do not let others to exposure to the programme.

Research: There lacks extensive research and documentation on the needs of the farmers. Before initiating any campaign or disseminating foreign agricultural activities or any new innovation, it requires empirical study according to the KIIs.

5.3.3. Programme continuation and up-scaling

The findings suggest continuation of the programme with Shykh Seraj as planner, producer and presenter. But, almost all the FGD participants and KII think that the programme should

cover more aspects of agriculture and cover more areas in wider range. The study reveals huge prospects for up-scaling of the programmes and its further development. There are huge scopes of agricultural sectors where the programme can contribute more through considering the perception of the farmers in terms of providing further information needs, increasing programmes length and frequency. According to some of the KIIs, the programme designer and the *Channel i* authority can implement the following aspects to upscale the present scenario of agricultural programme:

Improving logistic support: The logistic set-up of the programme should be re-organized in order to cover more agricultural programmes in comprehensive manner in more regions of the country. The programme logistics requires organizing in a way so that more team can work at a time under supervision of Shykh Seraj.

Knowledge transmission: According to some of the KIIs, the programme presenter can apply his experiences in imparting training to the planners, producers and presenters of agricultural programme.

Establishing a research and training institute: A centre of excellence for the development of the journalists covering agricultural beat can be set up under the auspices of *Channel i* with guidance and supervision of Shykh Seraj. The centre can regularly arrange seminar, dialogue and workshop on media and agriculture besides patronizing researches in this field.

Thinking of alternative presenter: The existing planner, producer and presenter of the programme needs to think of developing alternative programme presenter (s) so that the legacy of the existing programme is continued.

Engagement of female reporters: The programme presenter should develop some female reporters so that the issues of the female farmers in particular and the agricultural aspects in general are covered significantly overcoming the traditional way of coverage of agriculture and women.

Chapter Six

Recommendations and Conclusions

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This chapter presents recommendations based on the findings mostly drawn from the open-ended questions of the survey, focus group discussion, key informant interviews and content analysis. Emphasis was laid on further needs of agricultural information of the farmers. The recommendations were made in three levels: for *HMOM* programme and *Channel i*, for other TV channels, and for the government.

6.1. Recommendations for *HMOM* programme and *Channel i*

a. Addressing further information needs of the farmers

i. The programme should cover and focus more on the innovative agricultural activities, crop market and product prices, proper use of pesticides and chemical fertilizers, diversified diseases of the crops and their treatment, techniques of growing high yield and high valued crops at the lowest cost, proper feeding of the live assets, cultivation of new varieties of fruits, production techniques and use of organic fertilizers, information technology in agriculture; and newer, easier but cheaper agro-technologies.

ii. The programme should stress more on region-wise agricultural activities, needs of the farmers and techniques of addressing the needs. For example, emphasis on *Jhum* cultivation techniques should be given to facilitate the agricultural activities of the people living in the hilly region. Similarly, the programme should disseminate more information on the cultivation techniques of the crops suitable for the *Borendra* region and disaster- resilient crops for the coastal and *haor* region. The farmers of the *Borendra* region generally prefers the less water-fed crops due to the crisis of water

especially in the dry season. On the other hand, the farmers of the coastal and *haor* region prefer the crops which can sustain during inundation, water-logging and salinity.

iii. The programme should orient the farmers with the source and means of agricultural loans on soft condition.

iv. The programme should target new and laggard farmers to develop as the star farmers who can play role as models in agricultural sectors.

b. Farmer's rights and empowerment

i. Should report to draw attention of the policy makers for preserving agricultural land from corporate intrusion and clutch of the land-grabbers.

ii. Should reveal the issue of middlemen's interference in agricultural market through proper investigation and coverage.

iii. Should cover existing corruption in agricultural sector so that the budgetary allocation for the farmers and the agriculture is properly utilized.

iv. Should advocate for suitable prices of the agro-products, particularly for rice so that the farmers regain interests in growing rice.

v. The programme should pay more attention to implement the National Agriculture Policy 2013 to benefit the farmers effectively. Talk-shows, dialogue and policy-talk can be arranged on the same to draw attention of the policy makers.

vi. Should report on the importance of agricultural insurance so that the affected farmers are compensated during natural disasters.

vii. The programme should put forward the issue of intellectual or innovators property rights of the farmers for their innovations of crop varieties.

c. Entertainment and Others

i. Should initiate a separate programme on the farmer's *Puja* delights like the existing 'Farmer's Eid Delights' *programme.*

ii. Should advocate for setting up of an agricultural museum so that the new generation and the urban people are oriented with the agricultural tradition and heritage of Bangladesh.

iii. Should plan more events for the female farmers like their male counterparts who can participate in various events of the *'Farmer's Eid Delights'* programme.

d. Networking and linkage

i. Should focus on the importance of communication and coordination among the agricultural officers, policy makers, service providers, extension workers, researchers and the farmers.

ii. Should focus on cooperative/group irrigation scheme and its benefits; and collective agricultural scheme including income generating activities (IGA).

iii. The programme should take more initiatives to orient the new farmers with the star/resource farmers previously developed in various agricultural sub-sectors.

iv. Focus should be laid on the creation of a platform of donors, philanthropists and the civil society members so that they can advocate for the farmer's issues to the government.

e. Inclusion

i. More focus should be laid on the female farmers in different programme contents.

ii. Should employ female reporters in *HMOM* beat to cover the issues of the female farmers in-depth.

iii. The *HMOM* team should visit the underprivileged villages more to portray their agricultural practices and problems.

iv. Should plan to cover the uncovered villages and the farmers so that their participation is ensured in the programme.

f. Technicalities

i. Should avoid use of some technical and unknown words like ‘metric ton’ and ‘hector’.

ii. The reports should use the words ‘decimal’ and ‘kilogram’ as the unit of land and weight to make the farmers more clear about using fertilizers properly.

g. Expansion and Up scaling

i. Should expand *HMOM* office set-up and increase human resources so that the programme can be produced and disseminated more frequently.

ii. Should set up a call-centre for the farmers to disseminate agricultural information on demand.

iii. Frequency and length of the programme should be increased – at least two fresh episodes in a week with a minimum length of 30 minutes.

iv. Should set up a resourceful training and research centre to train the reporters on agriculture, conduct studies on agriculture, development and communication.

v. National, regional and international seminars and workshops should be arranged to disseminate the best practices of *HMOM* programme.

h. Continue campaign on sustainable agricultural development

i. Should continue the coverage of ‘go green campaign’ and ‘rooftop agriculture’ since these have high demand and applicability among the audience.

ii. Should give more emphasis on soil health and environment friendly agriculture.

iii. More reports and contents should be covered on the effects of the climate changes on agriculture in different regions of the country.

iv. Encourage the farmers to carry out agricultural considering agro-ecological traits of a region so that the natural atmosphere is not interrupted.

6.2. Recommendations for other TV channels

i. Other television channels should take necessary initiatives to train their reporters on both agriculture and techniques of TV reporting to make their agro-based programmes
ii. Planning, production and presentation of the agro-based programmes should be in line with the needs and expectation of the farmers.
iii. Should select appropriate agricultural content, design the programme in the participatory manner and capture the views of the farmers effectively.
iv. Emphasis should be given on rapport building with the farmers, building appropriate sources, production at the field level, narration and scripting.
v. The agro-based programmes should be based on research and proper planning.
vi. The farmers should be given more priority in the content rather than the experts.

6.3. Recommendations for government

i. Government should take steps for opening an agro-based TV channel accommodating the best practices of *HMOM* and expertise of the programme planner, producer and presenter.

ii. As per the National Agriculture Policy 2013, relevant government institutions like Agriculture Information Services (AIS) should closely work with the satellite television channels besides Bangladesh Television (BTV) to ensure more dissemination of agricultural information to the farmers.

iii. Government institutions i.e. AIS, Press Institute of Bangladesh (PIB) and National Institute of Mass Communication (NIMC) should arrange needs-based training and workshops for the journalists on agriculture and development issues.

iv. Relevant departments of the government, especially AIS and extension department should properly utilize the expertise of the *HMOM* team in agricultural development of Bangladesh through the use of televised programmes.

v. Experience sharing and exchange workshop between the agricultural reporters and the sector experts should be frequently arranged.

6.4. Scope for further study

HMOM program covers a wide range of diversity in the fields of agriculture and development. The program has created multifold areas of research and evaluation on media and agricultural transformation of Bangladesh. Therefore, it requires more extensive and comprehensive research to scrutinize the merit of the program in a multi-dimensional in-depth approach that would create new faculties of empirical knowledge. In the following areas, extensive researches on the same can be carried out:

a. Best practices of the programme and possibilities of their replication
b. Comparative analysis on different streams of *HMOM*
c. Contribution of *HMOM* program in the direction of achieving Sustainable Development Goals (SDG) set for Bangladesh
d. Contribution of the programme to empowering the famers of the country
e. Impact of the 'Farmer's Budget Programme' in the policy level
f. Role of the programme in empowering the female farmers of the country

Conclusion

During the study, the researcher has paid frequent visits to the selected villages, met the farmers, interacted with them and tried to understand their media exposure habits and the agricultural practices. Such interactions have facilitated to understand the perception of the farmers on the impact of *HMOM* programme. Since there were no panel data or baseline study to compare the changes in the farmers' agricultural practices due to the programme exposure, the same was understood from the views, statement, opinion and responses of the farmers. According to the findings and the interpretation of data, the following conclusions have been drawn:

- Television is preferred by the farmers as the medium of agricultural information, education and entertainment due to its audio-visual nature.

- A popular television programme can contribute to the access of agricultural information for the farmers irrespective of their socio-economic differences. The *HMOM* did the same by facilitating 97 percent farmers to have access to the agricultural information. Here, the versatility of the programme is evident.

- A development communication programme can be sometimes branded with the name of the programme planners, producer and presenter. An effective agro-documentary can be the most attractive and revenue generating programme for a television channel besides the entertainment ones. The *HMOM* is an example in this field.

- Improved information on agriculture has fostered the ability of the farmers to adopt the 'right' decision from the alternatives. After having access to necessary information, the farmers evaluated the significance of the information by consulting with the fellow farmers, relatives and family members as to adoption of the same. Most of the farmers (75.5 percent)

adopted the information availed from the programme as per their capacity, necessity and expectation to change their socio-economic condition.

- Audience's acceptance or rejection of information largely depends on the presentation style of the mass communicator or the source. In the process of adopting the agricultural information, the *HMOM* programme designer and presenter was a key influence to many. More than three-fourths (77 percent) of the farmers having adopted the agricultural information were motivated by the presentation style of Shykh Seraj.

- Adoption of information varies in terms of socio-economic variables: age, gender, education, income and type of village (transitional and traditional). The richer farmers were found using information more than others. In the transitional villages, 17 percent more farmers used the agricultural information than those of the traditional ones. The higher educational qualifications of the farmers corresponded with the higher level of information adoption. Monthly income and the gender of the respondents mattered in the process of information adoption. The female farmers lagged behind in using agricultural information comparing to their male counterparts.

- Television programmes on agriculture and development issues need to be participatory unless they cannot reach to the target audiences. The study shows that the agricultural programmes initiated by other TV channels following Seraj's paradigm have hardly reached to the farmers due to their less participation, interactions and demonstrations.

- The farmers like the mass communicator who gives them priority in presenting their views and sharing experiences in participatory manner.

- In the process of getting benefits from the television programmes, farmer's socio-economic features play important role. For example, the farmers of the transitional villages were

ahead of getting benefits from the use of agricultural information by nearly 13 percent more than those of the traditional villages. Similarly, the female farmers lag behind in terms of getting benefits from the use of information by nine percent than their male counterparts.

- The study shows that the audiences were not satisfied with both the programme's frequency and the duration of the episodes.
- Exposure to a television programme largely depends on the personality (movement, speaking style/expression and dress-up), communication approaches (gesture, posture and rapport with farmers) and the credibility of a programme designer, producer and presenter. All these were the key attractions for the farmers' exposure to *HMOM*.
- In Bangladesh, the female farmers are lagging behind in terms of showing assertiveness in taking part in the television programmes due to male dominance, nature of agricultural work, purdah system and social stigma.
- Due to male dominance in agricultural activities, female voices were not much heard or projected in the TV media. The *HMOM* presenter, also one of the key informant interviewees, told that the presence of the female farmers were comparatively low in the *HMOM* programme than their male counterparts at the initial stage due to conservative rural culture, male dominance and *purdah* system. But, at present, the notion is being changed, the female farmers are getting interested gradually to be projected and the *HMOM* is capturing more success stories of the female farmers.
- Agricultural journalism can make a society different by empowering the farmers. Previously neglected agricultural journalism is emerging as one of the mainstream programmes of television channels in Bangladesh following the success of *HMOM*.
- Farmers felt empowered when they are shown in the television programmes. The 'farmer's budget' series of *HMOM* has created a platform of mutual understanding

between the farmers and the policy makers through open-field face-to-face interactions and dialogue. The programme is also an eye-opener for the sectors like education, industry, health and so on where the authorities can ensure accountability of the government through participation of the masses.

- Exposure to the *HMOM* programme has brought about changes (impact) in the field of agricultural practices of the farmers according to the opinion of 69.6 percent of the respondents. The changes were reported in the areas of producing and using organic fertilizers, quality seeds, modern agricultural equipment, using fertilizers and pesticides in better way than before, cultivating vegetables and fruits in the homestead, rooftops and in the unused land, growing crops as per the quality of soil, taking care of the environment so that it is not degraded, consulting with the experienced farmers and agricultural workers, undertaking combined cropping system and becoming aware of their health during farming.

- The perceived changes were more visible in the transitional villages, among the male and the educated farmers. In terms of financial ability, the change in agricultural behavior of the farmers varied. The farmers belonging to the bottom most income group showed the negligible changes. Similar was evident for the farmers of the highest income group. It means, the poor farmers cannot use information and get benefit by adopting the same due to lack of financial ability while the richer ones paid less emphasis on their agricultural activities. In terms of the age, the changes were more evident for the farmers belonging to 26-33 and 34-41 age groups.

- The programme has developed capacity of the farmers by transfering information and knowledge on agriculture, health, rural culture, entertainment and rights related issues. The programme has created a platform of intercation between the farmers and the service providers. Now, the farmers developed their capacity to approach to the government authorities and claim their rights. Network and linkage of the farmers were also developed with the fellow farmers. Such capacity faciliated them to jointly plan and implement agricultural schemes like cooperative irrigation, farming and fishing. Thus, farmer's

networks were formed in a manner of 'social capital' which were supporting their collective gains and effective social actions rather than individual benefits.

- The study reveals some pragmatic challenges for the programme's sustainability. The key challenge is that no one has been developed as an alternative designer /planner and presenter who can run the programme with equal popularity in the absence of Shykh Seraj. In reality, the television programme has become a one-man show, a cult like affair nationally.
- In Bangladesh, there awaits huge prospects of agricultural progarmme in televisions since scopes of agriculture in Bangladesh are enormous. The farmers can be provided with more information in innovative and newer agricultural practices in line with the emerging needs especially in the areas of disaster resilient crops (in *Haor* and Coastal areas), *Jhum* cultivation techniques (in the hilly region), high yield and high-value crops, agricultural loans on soft condition, soil health and environment friendly agriculture.

In the holistic consideration, the flow of agricultural information throughout the country is still inadequate comparing to the needs of the farmers. Importance of the agricultural information has been focused in the National Agricultural Policy 2013 in which one of the suggestions was to increase collaborative approach among the government and non-government media outlets for disseminating agricultural information. However, there were no mentionable initiatives undertaken so far to implement the suggestion. This has narrowed down the opportunity of utilizing the ever-growing private TV channels in dissemination of agricultural information. The long-standing demand for setting up of an agro-based TV channel in the country has yet to be implemented. There are also gaps in formal communication, experience sharing and exchange programmes between the agricultural reporters and the sector experts from the government and non-government organizations and the departments. Therefore, the government should undertake an integrated approach of disseminating of agricultural information together with the private television channels. In this perspective, *HMOM* can be considered as an effective programme which can be referred as a model.

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Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*

Appendices

Appendix One

Content Analysis Formats (1, 2, 3, 4, 5 & 6)

Content Analysis Format 01: Selected episodes, themes and titles of the programmes for content analysis

No. of Episode	Date	Length minute: second	Theme of the Programme	Title of Programme
09	17.04.04	35:41	paddy and food grains cultivation	Paddy cultivation
43	18.12.04	32:54	paddy and food grains cultivation	*Hori dhan* (Paddy)
67	18.06.05	26:27	nursery and tree plantation	Tree plantation by Kartik Poramanik
73	30.07.05	33:59	live assets	Poultry raising
93	28.01.06	22:07	fruits	Banana cultivation
116	08.07.06	25:55	entertainment	Farmer's world cup
144	03.02.07	19:51	techniques of producing bio-fertilizers (grow green)	Bio-fertilizers
177	22.09.07	19:03	environment, disaster and climate change	Environment–river erosion in Chandpur
216	05.07.08	18:29	live assets	Poultry expansion
229	18.10.08	18:40	live assets	Artificial insemination
247	14.03.09	19:36	flower and fruits	Strawberry cultivation
281	21.11.09	24:25	paddy and food grains cultivation	Aromas Paddy
302	24.04.10	21:59	fishery	Fish cultivation
317	31.07.10	18:43	cash crop production	Jute cultivation
361	25.06.11	14:10	research and innovation	Paddy research by the farmers
338	08.01.11	14:19	fruits, flowers and honey cultivation	Honey production and crisis
430	01.12.12	20:17	research and innovation	Seed innovation
397	31.03.12	26:53	farmer's awareness and empowerment	*Krishi (agriculture) budget, Krishoker* (Farmer's) budget
473	26.10.13	14:41	vegetables and homestead gardening	Kitchen gardening
476	23.11.13	19:12	agricultural exchange between local and foreign agricultural practices	Foreign agriculture (Farm family-UK)
491	01.03.14	19:24	techniques of producing bio-fertilizers (grow green)	Vermi-compost
530	13.12.14	23:45	youth's linkage with the agriculture	*Firey Cholo Matir Taney* (Return to roots) -*Junior*
578	05.12.15	19:00	integrated pest management	Russell IPM
568	12.09.15	20:36	live assets	Cow fattening
525	04.02.16	31:02	rooftop gardening and greenery	Rooftop agriculture
No episode number	08.07.16	1 hour 14 min 22 sec	entertainment and farmer's delights	*Krishoker eid anando* (Farmer's eid-delights)

[Note: Some episodes i.e. episode no. 116, 397, 476, 530 and farmer's eid delight (no episode number) have their own focuses. Extracted data from these episodes were not aggregate. Data from the episodes having similar focuses were aggregated].

Content Analysis Format 02: Production Aspects of the Programme

Episode Number	Script (Consistent & focused?)	Narration (Easy to understand)?	Visual (Topic established?)	Sequence (Maintained stage by stage?)	Synchronization (Audio-visual matched?)	Remarks
09	Yes	No (moderately)	Yes	Yes	Yes	Moderately easy (Jargon used)
43	Yes	Yes	Yes	Yes	Yes	
67	Yes	Yes	Yes	Yes	Yes	
73	Yes	Yes	Yes	Yes	Yes	
93	Yes	Yes	Yes	Yes	Yes	
116	Yes	Yes	Yes	Yes	Yes	
144	Yes	No (moderately)	Yes	Yes	Yes	Moderately easy (English words used)
177	Yes	Yes	Yes	Yes	Yes	
216	Yes	Yes	Yes	Yes	Yes	
229	Yes	Yes	Yes	Yes	Yes	
247	Yes	No (moderately)	Yes	Yes	Yes	Moderately easy (English words used)
281	Yes	Yes	Yes	Yes	Yes	
302	Yes	Yes	Yes	Yes	Yes	
317	Yes	Yes	Yes	Yes	Yes	
361	Yes	Yes	Yes	Yes	Yes	
338	Yes	Yes	Yes	Yes	Yes	
430	Yes	Yes	Yes	Yes	Yes	
397	Yes	Yes	Yes	Yes	Yes	
473	Yes	Yes	Yes	Yes	Yes	
476	Yes	Yes	Yes	Yes	Yes	
491	Yes	Yes	Yes	Yes	Yes	
530	Yes	No (moderately)	Yes	Yes	Yes	Moderately easy (English words used)
578	Yes	Yes	Yes	Yes	Yes	
568	Yes	Yes	Yes	Yes	Yes	
525	Yes	Yes	Yes	Yes	Yes	
No episode number	Yes	Yes	Yes	Yes	Yes	
Total	26					

Content Analysis Format 03: Attributes of the Programme

Episode Number	Clarity (Info & source clearly stated?)	Credibility (Authenticity, knowledge & status of source okay?)	Interview (Rapport, well guided & prepared?)	Participation (Participatory?)	Info Quality (Complete, Usable?)	Presentation Quality (Friendly, appealing)	Remark
09	Yes	Yes	Yes	Yes	Yes	Yes	
43	Yes	Yes	Yes	Yes	Yes	Yes	
67	Yes	Yes	Yes	Yes	Yes	Yes	
73	Yes	Yes	Yes	Yes	Yes	Yes	
93	Yes	Yes	Yes	Yes	Yes	Yes	
116	Yes	Yes	Yes	Yes	Yes	Yes	
144	Yes	Yes	Yes	Yes	No (Average)		Some-what boring
177	Yes	Yes	Yes	Yes	Yes	Yes	
216	Yes	Yes	Yes	Yes	Yes	Yes	
229	Yes	Yes	Yes	Yes	No (Average)		Some-what boring
247	Yes	Yes	Yes	Yes	Yes	Yes	Yes
281	Yes	Yes	Yes	Yes	Yes	Yes	Yes
302	Yes	Yes	Yes	Yes	Yes	Yes	Yes
317	Yes	Yes	Yes	Yes	Yes	Yes	Yes
361	Yes	Yes	Yes	Yes	Yes	Yes	Yes
338	Yes	Yes	Yes	Yes	Yes	Yes	Yes
430	Yes	Yes	Yes	Yes	Yes	Yes	Yes
397	Yes	Yes	Yes	Yes	Yes	Yes	Yes
473	Yes	Yes	Yes	Yes	Yes	Yes	Yes
476	Yes	Yes	Yes	Yes	Yes	Yes	Yes
491	Yes	Yes	Yes	Yes	Yes	Yes	Yes
530	Yes	Yes	Yes	Yes	Yes	Yes	Yes
578	Yes	Yes	Yes	Yes	Yes	Yes	Yes
568	Yes	Yes	Yes	Yes	No (Average)	Yes	Some-what boring
525	Yes	Yes	Yes	Yes	Yes	Yes	
No episode number	Yes	Yes	Yes	Yes	Yes	Yes	
Total	26						

Content Analysis Format 04: Presentation of the Farmers (Male)

Episode Number	Farmers shown visually	Frequency	Interview	Duration min: sec	Type of farmers shown	Remark
09	Yes	22	Yes	12:50	Entrepreneur and rich	
43	Yes	11	Yes	20:27	Entrepreneur and marginal	
67	Yes	20	Yes	10:54	Entrepreneur	
73	Yes	09	No	00:47	Marginal	
93	Yes	06	Yes	14:25	Entrepreneur	
116	Yes	08	Yes	15:40	All types	
144	Yes	10	Yes	08:5o	Marginal	
177	Yes	13	Yes	07:10	Marginal	
216	Yes	06	No	01:50	All types	
229	Yes	06	No	00:45	Marginal	
247	Yes	07	Yes	12:35	Rich	
281	Yes	07	Yes	09:03	All types	
302	Yes	09	Yes	10:58	All types	
317	Yes	08	Yes	11:02	marginal	
361	Yes	04	Yes	04:00	Entrepreneur and marginal	
338	Yes	09	Yes	08:59	Entrepreneur	
430	Yes	07	Yes	05:37	Marginal	
397	Yes	All over the episode	Yes	---	---	Thematic
473	Yes	06	Yes	01:47	Entrepreneur	
476	Yes	05	Yes	14:00	Rich	
491	Yes	07	Yes	06:21	Entrepreneur	
530	---	---	---	---	---	Thematic
578	---	---	---	---	---	Thematic
568	Yes	11	Yes	13:00	Entrepreneur	
525	Yes	04	Yes	05:00	Rich	
No episode number	Yes	14	Yes	45:00	All types	Farmer's Eid Delights
Total	26	209	Y=			

Types of Farmers: Entrepreneurs (farming mainly for commercial purpose), Rich Farmers (owned a farm to produce crops by engaging day labourers, also sell products), for fulfilling Marginal Farmers (produce crops mostly for addressing family needs, work themselves besides day labourers).

Content Analysis Format 05: Presentation of the Experts

Episode Number	Experts interviewed /shown visually	Frequency of visual presentation /interview	Place of interview	Duration min: sec	Relevance of expert with the subject	Quality of information delivered by experts	Remark
09	yes	07	Field & Office	8: 30	yes	Very good	
43	yes	02	field	1:30	yes	Very good	
67	---	----	---	---	---	---	Not relevant
73	yes	01	field	1: 30	yes	Good	
93	yes	01	field	3: 29	yes	Very good	
116	---	---	---	---	---	---	Not relevant
144	yes	01	office	3: 29	yes	Good	
177	yes	02	field	2:04	yes	Very good	
216	yes	03	office	4:50	yes	Very good	
229	yes	04	office	6:20	yes	Very good	
247	no	---	---	---	---	---	Not shown
281	yes	03	field	2:00	yes	Very good	
302	yes	06	Field & office	6:07	yes	Very good	
317	yes	01	office	00:27	yes	Average	
361							Not shown
338	yes	02	field	00: 21	yes	Average	
430	yes	10	Field & office	6 :30	yes	Very good	
397							
473	no	---	---	---	---	---	Not shown
476	no	---	---	---	---	---	Not shown
491	yes	01	field	00:47	yes	Good	
530	Thematic episodes						
525	yes	03	field	05:00	yes	Very good	
568	yes	04	office	03: 27	yes	Very good	
578	yes	07	office	03:40	yes	Very good	
Eid-delights	---	---	----	--	--	---	Not relevant
Total	26						

Note: Quality of interviews were ranked as very good, good and average in consultation with supervisor and key informant interviewees (KII).

Content Analysis Format 06: Presentation of the Farmers (Female)

Episode Number	Female farmers shown	Frequency of visual presentation	Duration min: sec	Female farmers interviewed	Portrayed as main or associate farmer	Remark
09	Yes	21	00:46	No	Associate	
43	Yes	04	02:35	No	Associate	
67	Yes	01	00:02	No	Associate	
73	Yes	20	05:10	Yes	Main	
93	Yes	01	00:02	No	Associate	
116	Yes	01	00:02	No	Associate	
144	Yes	05	00:08	No	Associate	
177	Yes	12	01:26	Yes	Associate	
216	Yes	08	01:04	No	Associate	
229	Yes	05	00:08	No	Associate	
247	Yes	03	00:13	No	Associate	
281	Yes	06	01:37	Yes	Both	
302	No	---	---	---	---	Not shown
317	Yes	08	00:54	Yes	Associate	
361	No	---	---	---	---	Not shown
338	Yes	02	00:12	Yes	Main	
430	Yes	05	02:00	Yes	Both	
397	No	---	---	---	---	Not shown
473	Yes	07	05:22	Yes	Main	
476	Yes	03	00:05	No	Associate	
491	Yes	07	06:20	Yes	Main	
530	No					
525	Yes	07	05:00	Yes	Main	
568	No	---	---	---	---	Not shown
578	Yes	09	01:00	Yes	Main	
Eid-delights	Yes	07	08:00	Yes	Both	No episode number
Total	26					

Appendix Two

The Survey Questionnaire

Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*

The Survey Questionnaire

Village:	Union:		Upazila:
District: Date:	Division:	Transitional Village-1	Traditional Village-2

Rapport Building:

I heard you are doing farming. We want to hear your experiences and understanding about that. Please tell me, how long have you been in this profession? How did you involve in this profession?

The Questionnaire

A. Media Exposure Habit of the Respondents

1. Which media do you use to get news? May be more than one answer.

1.Newspaper	2. TV	3. Radio	4. Online news portal	5. Mobile Phone	6. Others…

2. How much time do you spend using the media?

Media	Everyday	3 or 4 days a week/times	1 day a week/times	No response
Newspaper	1	2	3	4
TV	1	2	3	4
Radio	1	2	3	4
Online news portal	1	2	3	4
Mobile Phone	1	2	3	4
Others……				

3. Which news medium do you like more?

1.Newspaper	2. TV	3. Radio	4. Online news portal	5. Mobile Phone	6. Others……

B. Tendency of Watching the TV Programme *Hridoye Mati O Manush*

4. Do you watch the TV programme "Hridoye Mati O Manush"?

1. Yes	2. No

5. If yes, Please tell about your exposure/watching habit.

1. Regular	2. Often	3. Sometimes	4. Occasionally

6. Where do you watch TV? More than one answer is acceptable.

1. At own house	2. Neighbor's house	3. Bazar	4. Tea/other stores	5. Others

C. Remembering (Recall)

7. What is usually shown in the programme of "Hridoye Mati O Manush"? Can you remember something?

8. Have you learned something from this programme?

1. Yes	2. No	3. No response

9. If remember anything, please tell what you have learned or what you can remember?

10. Do you watch any other programme related to farming on TV?

1. Yes	2. No	3. No response

11. If yes, which programme? Please tell the name of the programme?

1.	2.	3. No response

12. Have you seen any kind of similarities and dissimilarities of the "Hridoye Mati O Manush" with any others programme?

1. Yes	2. No	3. No response

13. If the answer is yes, please remember, what are the differences?

Similarities:
Dissimilarities:

D. Access to Agricultural Information

14. Do you get the useful information from the "Hridoye Mati O Manush" programme?

1. Yes	2. No	3. No response

15. If you've received, what type of information did you get from the programme?

Subjects of agricultural information	**Code**
Techniques of cultivating food grains (paddy, wheat, maize etc.)	1
Techniques of cultivating cash crops (Jute, flowers, nursery, fruits, process of growing vegetables etc.)	2
Livestock (cattle) rearing	3
Fishery	4
Poultry farms	5
Crop's season and rotation	6
Proper use of pesticides and integrated pest management	7
Techniques of producing and using bio-fertilizers	8
Bad effects of harmful chemical fertilizers in farming	9
Use of technology in farming	10
Value of farmer's opinion in the national budget	11
Techniques of producing and using bio-fertilizers,	12
Combined system of agriculture	13
Farmer's health care, Techniques of foreign agricultural activities	14
New and innovative agriculture and its benefits	15
Crop markets	16
New agricultural equipment and technology	17
Disaster resilient crop	18
Proper use of pesticides and integrated pest management	19
Preservation and use of seeds	20
Irrigation systems	21
Controlling of pests in natural way	22
Jhum farming	23
Honey cultivation	24
Cooperative farming	25
Crop's season and rotation	26
Government's agricultural services at upazila and union level,	27
Menace of intermediaries, food security, aviculture.	28

16. Is your need addressed with the information you receive from the programme?

1. Yes	2. No	3. No response

17. If the answer is yes, how much is your needs met?

1. Sufficient	2. Moderately	3. Not met	4. No response

18. What is the level of your satisfaction on getting the information from this programme?

1. Satisfied	2. Moderately satisfied	3. Not satisfied	4. No response

19. What types of information do you need further for farming?

E. Use of Information and Benefits

20. Can you remember that you have used information received from the programme in your agricultural activities?

1. Yes	2. No	3. No response

21. If the answer is yes, in which particular areas of agriculture have you used the information? More than one answer is accepted.

Code	**Areas/Subjects of agricultural information**
1	Knowing, buying and using proper fertilizers and pesticides
2	In preservation of seeds
3	Food grains (paddy, wheat, maize etc.) production
4	Cash crops (Jute, flowers, nursery, fruits, process of growing vegetables etc.)
5	In livestock rearing
6	Making and using the bio-fertilizers
7	In fish cultivation
8	In poultry farming
9	Irrigation
10	In food security
11	In communicating with the government officials

12	Growing the disaster resilient crop farming
13	Combine agriculture
14	To receive the agricultural services from the government
15	Buying-selling the agricultural products
16	Farming without causing harm to the environment (like without cutting trees, not filling the water-bodies)
17	In the use of modern equipment in farming
18	In pest-management
19	In caring about the farmers health
20	Others:

22. What were the specific reasons behind using the information? More than one answer is accepted.

23. Do you discuss with others about this programme?

1. Yes	2. No	3. No response

24. If the answer is yes, to whom?

1. Fellow farmers	2. Friends and relatives
3. Teachers, Imams, Priest, Village doctors, NGO's employees	4. Members of the family
5. UP member, Chairman	6. Agricultural officials
Others……..	

25. Have you got any benefit from the usage of the information?

1. Yes	2. No	3. No response

26. If the answer is yes, please mention what are the benefits? May be more than one answer

Areas/types of Benefits	**Code**
Got abundant crops(food grains and cash crops)	1
Increased information and knowledge on producing various types of crops	2
Increased awareness of harmful insects, crops diseases and their prevention	3
Produced crops at low cost	4
Increased linkage with buyers and crop market	5
Increased honor in the society for better agricultural knowledge	6
Learned to produce environment friendly bio-fertilizers	7
Got more price of the crops	8
Developed capacity to approach to the government officials and service providers	9
Increased network and cooperation with fellow farmers and various organizations	10
Understood importance of the farmer's participation in national budget	11
Others…….	12

27. If you didn't use the information you have received from the programme, please tell us the reasons? May be more than one answer

1. Was not in need of that	2. The information seemed incredible
3. The information was not befitting with agricultural environment of this area	4. Had no ability
Others…….	

F. Gender Dynamics

28. Are the female farmers shown in this programme?

1. Yes	2. No	3. Sometimes	3. No response

29. Please give your opinion regarding portrayal of the female farmers in this programme:

1. More portrayal than the male farmers	2. Equal portrayal as of the male farmers
3. Less portrayal than the male farmers	Others……

30. In what manner are the female farmers shown in this programme?

1. As active farmers	2. As assistant farmers of the male
Others……..	

G. Regarding the Programme (Legibility of Message and Presentation)

31. Is the time of programme broadcasting suitable for you?

1. Yes	2. No	3. No response

32. If the answer is no, what can be the suitable time slot ?

1. Morning	2. Midday	3. Afternoon	4. Evening	5. Others……

33. Are you satisfied with the length of the programme?

1. Yes	2. No	3. No response

34. If the answer is 2 and 3, what should be the length?

1. 30-45 mins	2. 45-60 mins	3. More than 1 hour	4. No response

35. How many days a week do you want the programme?

1. Everyday	2. 2-3days	3. 4-5 days	4. 1 day	5. Cannot tell

36. How do you feel the language of the program?

1. Easy	2. Moderately easy	3. Difficult	4. No response

37. How do you feel the video graphs/footage of the program??

1. Easy	2. Moderately easy	3. Difficult	4. No response

38. Do you know the presenter's name of the "Hridoye Mati O Manush" programme?

1. Yes	2. No

39. Do you like the personality of the presenter (movement, speaking, dress etc?) How does it feel?

1. Very good	2. Good	3. Moderately	4. Not good	5. No response

40. How is his behavior and communication manner with the farmers?

1. Very good	2. Good	3. Moderate	4. Not good	5. No response

41. Do you think the presenter has the proper agricultural knowledge and ideas?

1. Very good	2. Good	3. Moderately	4. Not good	5. No response

42. Do you think credible what is presented in the programme?

1. Yes	2. No	3. No response

43. Are you interested to participate in this programme?

1. Yes	2. No	3. No response

44. What is your expectation from the presenter of "Hridoye Mati O Manush" programme?

……

45. Please give your assessment and opinion about the "Hridoye Mati O Manush" programme and its presenter?

H. Impact (Changing agricultural behaviors)

46. Is there any change after watching the "Hridoye mMati O Manush" programme in the field of agricultural practice?

1. Yes	2. No	3. No response

47. If the answer is yes, what are the changes?

1. Used modern agricultural equipment	2. Consulted with experienced farmers and agricultural officials/experts
3. Produced and used organic and natural fertilizers	4. Grew crops as per quality of soil
5. Cultivated vegetables and fruits in the homestead, rooftops and unused land	6. Grew multiple crops simultaneously in the same land or farm
7. Used higher quality of seeds	8. Used fertilizers and pesticides properly
9. Took care of environment so that was not interrupted or polluted	10. Grew crops together with fellow farmers
11. Concerned with health issues	12. Adopted innovative and natural methods of pest-control
13. Adopted agricultural technology and innovations	14. Took initiatives of growing disaster resilient crops
Others……..	

48. What are your perceptions of the programme? I would present some statements, please give your opinion:

Subject	**Agree**	**Moderately Agree**	**Disagree**	**No response**
Provide information on growing different new crops	1	2	3	4
Raising awareness on the health of the farmers	1	2	3	4
Motivating farmers to use information technology	1	2	3	4
Giving the farmers ideas of co-operative farming	1	2	3	4
Report on agricultural innovations and experiences	1	2	3	4

Entertain the farmers (Sports , Eid delights etc.)	1	2	3	4
To present the voices of the farmers to the government	1	2	3	4
Reduce the gap between the farmers and agricultural officials	1	2	3	4
Facilitate the farmers to get suitable price of their products	1	2	3	4
Inform the farmers of natural techniques of farming	1	2	3	4
Aware the farmers of impact of climate change on agriculture	1	2	3	4
Motivate them to grow disaster resilient crops	1	2	3	4
To encourage the farmers using of modern equipment in agricultural activities	1	2	3	4
Making the farmers aware of their rights	1	2	3	4
Encouraging the young generation toward agricultural activities	1	2	3	4
Making the farmers confident	1	2	3	4
Contributed to the employment generation	1	2	3	4

49. What are the weak points of the programme in your opinion. Please tell in detail……

……

……

……

50. Please tell something about the pogramme which I did not ask you or which will be used to improve the quality of the programme.

Demographic Information

Name of the Respondent:		Age:	
Educational Qualification :	Agricultural sector/subsector		
Monthly income of the family:		Male	Female

Signature:……..……..

Date:……

-0-

Appendix Three

Focus Group Discussion (FGD) Guidelines

Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*

Guidelines for FGD

Venue: **Time:** **Date:**

Please ensure that you have received consent from the participants and filled in the attendance sheet before beginning the session.

Introduction

Thank the participants for agreeing to participate. The moderator should introduce himself/herself and the Assistant Moderator. Please make sure that questions are posed by the Moderator ONLY. As a rule, questions should not be phrased to produce a 'yes or no response'. Questions should tend toward discussion and further exploration of a response. Participants should be fully engaged in discussion in narrative manner. If a participant responds in 'Yes/No' format, please probe before moving to the next issue or the participant(s). Assistant Moderator's job is to ensure the logistical parts (e.g. record the conversations, take notes). Please ensure that no more than two individuals are present in the FGD as the consultant's representatives.

Explain the purpose briefly: The purpose of the group discussion is to gather your perspectives on 'Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush'*.

Explain the ground rules:

1. WE WANT YOU TO DO THE TALKING.

We would like everyone to participate.

I may call on you if I haven't heard from you in a while.

2. THERE ARE NO RIGHT OR WRONG ANSWERS

Every person's experiences and opinions are important.

Speak up whether you agree or disagree.

We want to hear a wide range of opinions.

3. WHAT IS SAID IN THIS ROOM/PLACE STAYS HERE

We want everyone to feel comfortable sharing when sensitive issues come up.

4. WE WILL BE RECORDING THE DISCUSSION

We want to capture everything you will say.

We don't identify anyone by name in our report. You will remain anonymous.

For moderator:

PLEASE READ VERY CAREFULLY

The following are the characteristics of good questions:

1. ***Sound Conversational.*** The focus group is a social experience, and conversational questions help create and maintain an informal environment. Thus make changes in wording as necessary, but do not change the meaning of the question.

2. ***Use Words the Participants Would Use When Talking About the Issue***. Don't use acronyms, jargon, and technical lingo unless you are talking to a group of experts. The participants are not here to be educated.

3. ***Are easy to say.*** Good questions are written so the moderator won't stumble over words or phrases. Some questions are great in written form but are awkward or stilted when asked orally. Thus, please check carefully well before you start of the session.

4. ***Are clear***. When the question is asked, participants should understand what you're asking. If necessary repeat, paraphrase; but don't veer away.

5. ***Are usually short.*** Lengthy questions can be confusing to respondents. The questions are short and keep them short.

6. ***Are usually open-ended***. Open-ended questions are a hallmark of focus group interviewing.

[Based on R. A Krueger & M. A. Casey, (2000). Focus groups: A practical guide for applied research. Newbury Park, CA: Sage.]

Discussion Points

Icebreaker question: The question must be improvised based on the conditions and the mood of the group. This can be of any light topic such as weather or sports or anything you like as starter. The goal is to make everyone comfortable and to ensure that all the participants can hear the moderator (and vice versa). It is also to check the recording devices are working properly.

PLEASE REMEMBER: Because the moderator holds a position of authority and perceived influence, s/he must remain neutral, refraining from nodding/raising eyebrows, Agreeing/disagreeing, or praising/denigrating any comment made. However, do encourage a speaker to continue his or her line of response, if needed (for example, "I see, that's interesting, keep on ..."). Tell participants that the focus group will take about one and half to two hours.

1. The transition question:

How are you all? Thanks for coming to join us. How is the weather today?

2. **Engagement Questions:**

Please tell us about the scenario of overall life-style, living conditions and overall socio-economic and cultural orientation and settings, media scenario, information and knowledge on life related issues in your areas/localities.

3. Focuses

Media Exposure Habit:

Please tell us about your exposure to National Media, i.e. Newspapers, Radio, TV, Online Mobile phone etc. What media are available in this area?

Preferred media:

Which media do you prefer for information, education and entertainment? In particular, on agriculture? Give reasons to your answers. Why do you like that particular media for getting information on agriculture?

Exposure to Agricultural Programmes on TV:

Exposure to *Hridoye Mati O Manush (HMOM)*:

Exposure to other programmes:

Differences between *HMOM* and other Programmes:

Similarities:

Dissimilarities:

Access to Agricultural Information:

Do you get necessary information from the *HMOM* programme? In which areas do you get information? Does your information need meet with whatever you get from the programme? Is the information relevant with your agricultural issues?

How, according to you, is the quality and credibility of information? Do the information reach to all types of farmers? Do the female farmers get information from the programme? Please detail. If yes/not….then Why?

Do you need further agricultural information? If yes, in which areas do you need more information? Please name the agricultural areas where you need more information.

Use of the Information and Benefits from that

Do the farmers use information availed from the programme? What is the tendency of using the information? In case of positive responses, what are the reasons for using information? In case of negative responses, why do the farmers not use the information availed from *HMOM* ?

Particular areas of information use:

Role of Opinion Leaders (Relatives, family members, agricultural officers, UP members & Chairman and others)

Benefits of Using Information:

What were the outcomes of the benefits?

If there were no benefits, what were the reasons?

How were the farmers treated in the society, government offices and other places after their participation in the 'Farmer's Budget' programme?

How did the farmers feel after their participation in 'Farmer's Budget' and 'Farmer's Eid Delights' programmes?

Further information needs on agriculture:

Gender Representation in the *HMOM* Programme

How were the female farmers portrayed in the programme? Equally to the male counterparts?

In case of unequal representation comparing to the male farmers, what were the reasons? How can it be increased?

Regarding the Programme

Time of Telecast:

Length of the Programme:

Language of the presenter:

Visuals of the programme:

Personality, attitude and level of rapport with the farmers:

Gesture, posture and demonstration:

Branding of the programme: presenter's dress

Credibility of the Message:

Farmer's expectation: participation in the programme, desires from the presenter

Overall assessment of the programme:

Perception on the role of the programme in sustainable agricultural development

Does the programme tell about environment friendly agriculture? If yes, how?

Do you get information on bio-fertilizer and natural way of controlling pests? Please detail.

How do you evaluate the integrated system of agriculture shown in the programme? Do the community people practice that? What was the result?

Do you get information on innovative agricultural system from the programme? If yes, please give details.

Does the programme inform you on modern agricultural technology? Please details. What are the technologies? What did you know from that? Did you adopt the technology?

Does the programme cover on disaster resilient cropping system? Details, please.

Does the young generation feel interested in agriculture after exposure to the programme? Why or why not?

Change of Agricultural Behaviour

Agricultural areas where the change was perceived visible after the exposure to the programme:

Who were changed more? (In terms of sex, income, education etc.).

How were the farmers valued in the society after getting changed?

Recommendations for further development:

More points to share:

Appendix Four

Key Informant Interviews (KII) Guidelines

Perception of Farmers on the Impact of Television Programme in Sustainable Agricultural Development of Bangladesh: A Case Study on *Hridoye Mati O Manush*

Name of the Key Informant Interviewee (KII):

Designation/particulars: **Address:**

Access to Agricultural Information:

What is your observation regarding the role of television in agricultural development of Bangladesh? Do you think, the television channels are playing adequate role?

How do you evaluate the programme '*Hridoye Mati O Manush (HMOM)'*? What about other programmes on agriculture in other channels? What are the differences or similarities?

Use of the Information and Benefits

Do you think the *HMOM programme* could benefit the farmers? If yes, how? If not, why?

What are the further information needs of the farmers? Please details.

Gender Representation in the *HMOM* Programme

How much the female farmers are portrayed in the programme and how? Is there any disparity or gap? Why or why not?

Regarding the Programme (Please give your observation and insights regarding the following issues): Time of Telecast, Length of the Programme, and Language of the presenter

Visuals of the programme

Personality, attitude and level of rapport with the farmers:

Gesture, posture and demonstration:

Dress branding:

Credibility of the message:

Farmer's expectation: participation in the programme, desires from the presenter

Overall assessment on the programme:

Perception on the role of the programme in sustainable agricultural development

Does the programme tell about environment friendly agriculture? If yes, how?
Do you get information on bio-fertilizer and natural way of controlling pests? Please detail. How do you evaluate the messages of the programme on this issue and their outcomes?
How do you evaluate the integrated system of agriculture shown in the programme? Do the community people practice that? What was the result? Please give your observation.
According to you, do the farmers get information on innovative agricultural system from the programme? If yes, please give details.
Does the programme inform the farmers on modern agricultural technology? Please details. What are the technologies? Did you see the farmers adopting the technology?
Does the programme cover on disaster resilient cropping system? Details, please.
Does the young generation feel interested in agriculture after exposure to the programme? Why or why not? What is your observation of the programme's impact on the young generation?

Evaluation of the impact of the programme (Please provide with your assessment and insights regarding the following issues)

Agricultural areas or activities of the farmers where the change was visible

Relation of the changes to the farmers after exposure to the programme and empowerment in terms of their socio-economic transformation

Linkage of the farmers, dialogue with the policymakers in the ‘farmer’s budget’ programme

Farmer’s participation in the ‘farmer’s budget’ and ‘farmer’s eid delights’ programme

‘Revisit to the Roots’ programme where the school and university students are facilitated to go to the villages and learn agricultural activities through intensive interaction with the farmers

What, according to you, are the visible changes that the programme has brought about on the farmers after exposure to *HMOM* programme? Do you think that the programme is facilitating farmer’s empowerment? How? Or, why not?

Opinion on sustainability and up-scaling of the programme

Limitations of the programme

Recommendations for further development:

More points to share:

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Appendix Five

List of the FGD Participants

List of the FGD Participants

FGD No. 01

With Female Respondents

Division	District	Upazila	Union & Village
Khulna	**Bagerhat**	**Fakirhat**	**Mulghar- Transitional Village**

S/N	Name	Age	Profession	Education
1	Moyna	25	Paddy and Fishery	IX
2	Ratna Rani Sardar	25	Paddy	Viii
3	Vokti Hira	38	Paddy and Fishery	SSC
4	Mossamot Majeda Begum	40	Paddy and Maize	V
5	Vilima Roy	55	Paddy	No education
6	Suraiya	18	Paddy	IX
7	Santilata	40	paddy	V
8	Urmila Roy	55	paddy	No education
9	Kazi Reshma	40	Paddy	VIII

FGD No. 02

With Male Respondents

Division	District	Upazila	Union & Village
Khulna	**Bagerhat**	**Fakirhat**	**Mulghar, Kakdanga- Traditional**

S/N	Name	Age	Profession	Education
1	Sarder Nipu	35	Paddy and Shrimp	V
2	Shamresh Bashu	18	Paddy and Fish	SSC
3	Sumit Sardar	30	Shrimp	VIII
4	Sajal Sarder	25	Shrimp and paddy	SSC
5	Sarder Rabiul Islam	26	Fishery	IX
6	Ashiqur Rahman	45	Shrimp	SSC
7	Kabir Jaman	56	Paddy and Fish	V
8	Shohag	28	Paddy	HSC
9	Jamal Uddin	45	Paddy	SSC
10	Gabinda Sarder	40	Fishery	IX
11	Gurupad Biswas	45	Fishery	Class V
12	Sheikh Najrul Islam	50	Paddy	SSC

FGD No. 03

With Female Respondents

Division	District	Upazila	Union & Village
Chittagong	**Bandarban**	**Bandarban Sadar**	**Suwalok 4. No., Suwalok - Traditional**

S/N	Name	Age	Profession	Education
1	Gita Das	18	Live asset	HSC
2	Urmi Das	28	Paddy	III
3	Jannatul Nayeema	18	Paddy	HSC
4	Rubaida Begum	29	Paddy	Illiterate
5	Payera Begum	45	Live assets	V
6	Selowara Begum	32	Live assets	III
7	Humaira Akter	28	Live assets	IX
8	Shirin Akter	30	Paddy	SSC
9	Berula Tong	28	Fruits	Illiterate
10	Bijli Tonchanga	30	Fruits	SSC

FGD No. 04

With Male Respondents

Division	District	Upazila	Union & Village
Chittagong	**Bandarban**	**Bandarban Sadar**	**Suwalok 4. No., Suwalok - Traditional**

S/N	Name	Age	Profession	Education
1	Ali Hussain	28	Vegetables, Tobacco	VIII
2	Md. Iqbal	24	Paddy	VIII
3	Mansur Ali	78	Vegetables	II
4	Md. Yunus	40	Paddy, Soyabean	V
5	Kazi Md. Belal Hussain	45	Paddy	SSC
6	Abdul Malek	60	Ginger	V
7	Mubarak Hussain Master	88	Paddy and Ginger	SSC
8	Kabir Ahmed	45	Betal Leaf	No education
9	Abdus Sattar	48	Vegetables	No education
10	Sefroding Barma	80	Jhum (Pinapples, Banana etc.)	No education
11	Sajal Kanti Tong	26	Vegetables	VIII
12	Rajchandra Tanchanga	68	Fruits	No education

FGD No. 05

With Female Respondents

Division	District	Upazila	Union & Village
Chittagong	**Chittagong**	**Hathazari**	**Fatehpur , Maizpatty-Transitional**

S/N	Name	Age	Profession	Education
1	Parvin Akter	45	Paddy	Class V
2	Ritu	26	Paddy and Vegetables	VIII
3	Popi Akter	35	Paddy	VIII
4	Jesmin Akter	45	Paddy and Live Assets	Class V
5	Ruma	35	Paddy	Class V
6	Shamsun Nahar	44	Paddy	No education
7	Rahima Khatun	40	Paddy and Vegetables	No education
8	Sharmin Akter	19	Paddy	VIII
9	Lilu Akter	40	Paddy	No education
10	Monowara	28	Paddy and Vegetables	Class V

FGD No. 06

With Female Respondents

Division	District	Upazila	Union & Village
Rangpur	**Dinajpur**	**Dinajpur Sadar**	**2 No Sundarban, Kalikapur - Transitional Village**

S/N	Name	Age	Profession	Education
1	Mossammat Mazeda	40	Paddy and Maize	V
2	Mosammat Morium	30	Fruit, Vegetables and Live Assets	ix
3	Jesmin Akter	21	Fruit, Vegetables and Live Assets	Vii
4	Anjanee Roy	25	Maize and Vegetables	No education
5	Radhika Roy	25	Maize and Vegetables	No education
6	Mollika Roy	22	Paddy	No education
7	Daro Rani	28	Paddy	No education
8	Alo Rani	27	Paddy	No education
9	Shuva Rani	32	Paddy	No education
10	Mosammat Amina	32	Maize and paddy	Viii
11	Mussammat Halima	22	Paddy, Maize and Poultry	Viii

FGD No. 07

With Male Respondents

Division	District	Upazila	Union & Village
Rangpur	**Dinajpur**	**Dinajpur Sadar**	**2 No Sundarban, Sundarban – Traditional Village**

S/N	Name	Age	Profession	Education
1	Arun Kumar Roy	50	Paddy and Maize	HSC
2	Abdur Rahim	57	Paddy and Maize	SSC
3	Sri Vupati Chandra Roy	57	Paddy	VIII
4	Sakhyen Kumar Roy	44	Paddy and Maize	SSC
5	Gopal Chandra Roy	45	Paddy	No education
6	Gopen Chandra Roy	35	Paddy	V
7	Sayedur Rahman	48	Paddy and Maize	HSC
8	Ananda Mohan Roy	53	Paddy and Maize	SSC
9	Murtaza Kamal	38	Fruit	Diploma
10	Mokbel Hossen	45	Maize	No education
11	Horey Krishna	55	Paddy and Vegetables	No education
12	Jugesh Chandra Roy	65	Paddy	vi
13	Sudir Roy	65	Paddy	No education

FGD No. 08

With Male Respondents

Division	District	Upazila	Union & Village
Sylhet	**Hobiganj**	**Hobiganj Sadar**	**Baghasur, Kalikapur- Traditional Village**

S/N	Name	Age	Profession	Education
1	Jahangir Chowdhury	28	Paddy and Vegetables	viii
2	Dulal Ahmed	26	Paddy and Vegetables	SSC
3	Amir Ali	26	Paddy and Vegetables	No education
4	JoynalAbedin	27	Vegetables	No education
5	Sajahan	25	Paddy	No education
6	Ashiq Islam	30	Seasonal	HSC
7	Shah Alam	25	Vegetables	No education
8	Alam Mia	37	Jute, Wheat and Potato	No education
9	Hasan Ali	32	Jute and Paddy	No education
10	Bashir Ali	60	Paddy, Jute and Wheat	No education
11	Murshida Begum	52	Poultry and Vegetables	No education
12	Hatem Ali	47	Poultry and Vegetables	No education

FGD No. 9

With Female Respondents

Division	District	Upazila	Union & Village
Sylhet	**Hobiganj**	**Hobiganj Sadar**	**Baghasur, Kalikapur- Traditional Village**

S/N	Name	Age	Profession	Education
1	Asma Begum	30	Poultry and vegetables	Primary
2	Ranu Begum	28	Poultry and Livestock	Secondary
3	Tonni Begum	28	Poultry and Vegetables	Secondary
4	Golapi Begum	33	Poultry and Vegetables	No educational qualification
5	Swapna Das	25	Paddy and Live assets	Primary
6	Monima Begum	44	Poultry and Paddy	Secondary
7	Diba Rani	31	Live assets and paddy	Secondary
8	ParulAkter	33	Poultry and Paddy	Secondary

FGD No. 10

With Male Respondents

Division	District	Upazila	Union & Village
Sylhet	**Hobiganj**	**Hobiganj Sadar**	**Baghasur- Transitional Village**

S/N	Name	Age	Profession	Education
1	Junaed Ahmed	45	Paddy	SSC
2	Md. Bachchu Mia	55	Rubber	No education
3	Md . Abul Khair	40	Paddy	VIII
4	Md. Swapan Mia	45	Multiple	No education
5	Md. Khokon M ia	40	Paddy and jute	No education
6	Md. Churuk Mia	50	Paddy and Jute	V
7	Md. Khalil Mia	40	Wheat and Jute	No education
8	Md. Mohiuddin	35	Paddy	No education
9	Sohel Mia	25	Paddy and Jute	No education
10	Nayeem Ahmed Nasir	40	Paddy, wheat and Vegetables	HSC

FGD No. 11

With Female Respondents

Division	District	Upazila	Union & Village
Rajshahi	**Natore**	**Natore Sadar Upazila**	**5 No. Harishpur Union, Rampur - Transitional Village**

S/N	Name	Age	Profession	Education
1	Sweety Sarker	32	Paddy	HSC
2	Shilpi Sarker	40	Paddy	SSC
3	Suchitra Sarker	36	Paddy	VIII
4	Archona Sarker	33	Paddy	No education
5	Ribotana Jharna	52	Paddy	No education
6	Surma Khatun	18	Paddy	VIII
7	Rina Khatun	30	Paddy	V
8	Mst. Latifa Khatun	34	Paddy	No education
9	Marjinakhatun	32	Paddy	HSC

FGD No. 12

With Male Respondents

Division	District	Upazila	Union & Village
Rajshahi	**Natore**	**Natore Sadar Upazila**	**5 No. Harishpur Union, Sankarvag -Traditional Village**

S/N	Name	Age	Profession	Education
1	Md. Rayhan	27	Paddy and Fruits	VIII
2	Md. Rafikul Islam	33	Paddy	V
3	Provat Kumar Sarker	55	Mango	MA
4	Md. Hanif Mia	25	Vegetables	VIII
5	Monoranjan Das	35	Fruits	No education
6	Sudev Kumar Sarker	40	Wheat and Maize	VIII
7	Saiful Islam	40	Vegetables	V
8	Md. Farid Ali	43	Cattle	No education
9	Md. Hazrat Ali	59	Vegetables	No education
10	Nur Muhammad	70	Vegetables	No education
11	Md. Alam	30	Paddy	No education
12	Yunus Ali	50	Paddy	No education
13	Sagar Chndra Bhumik	50	Paddy	No education

FGD No. 13

With Male Respondents

Division	District	Upazila	Union & Village
Barisal	**Patuakhali**	**Dumki**	**Muradiya, Uttor Muradiya - Transitional Village**

S/N	Name	Age	Profession	Education
1	Moti Halder	55	Paddy	No education
2	Majid Shikder	35	Paddy and Vegetables	viii
3	Rakibul Islam	30	Vegetables	SSC
4	Jamal Molla	27	Paddy	No education
5	Abdul Sattar	42	Paddy	No education
6	Md. Belal	25	Seasonal	HSC
7	Babul Mia	46	Jute, Wheat and Potato	SSC
8	Mukter Ali	37	Jute, Paddy	No education
9	Sumon Mia	32	Paddy	VI
10	Bikash Das	60	Paddy, Jute and Wheat	SSC
11	Md. Gazi	47	Poultry and Vegetables	No education

FGD No. 14

With Male Respondents

Division	District	Upazila	Union & Village
Barisal	**Patuakhali**	**Dumki**	**Muradiya, Joar Char Gorobdi –Traditional Village**

S/N	Name	Age	Profession	Education
1	Ashraf Ali Sikder	60	Vegetables	VIII
2	Md. Rafiqul Islam	65	Bitter Gourd	SSC
3	Babul Sattar	50	Vegetables	No education
4	Shomir Sikder	40	Paddy	No education
5	Abdul Jobbar Mollah	60	Paddy	No education
6	Abdul Wahab Hawlader	60	Paddy	V
7	Abdul Mannan	48	Paddy	X
8	Najrul Islam	50	Paddy	No education
9	Rafikul Islam	47	Fish	SSC

FGD No. 15

With Male Respondents

Division	District	Upazila	Union & Village
Dhaka	**Tangail**	**Basail**	**Kanchanpur, Dakshinpara- Transitional Village**

S/N	Name	Age	Profession	Education
1	Md. Obaidur Rahman Khan	45	Paddy	SSC
2	Komal Dey	50	Paddy and Mustard	V
3	Abdul Hamid	35	Paddy	V
4	Uttom Saha	55	Paddy	No education
5	Md. Sahabuddin	40	Paddy	VIII
6	Atuar Rahman	56	Mustard	HSC
7	Abdul Malek	45	Fishery	VIII
8	Md. Babul	40	Paddy	No education
9	Md. Manik Mia	28	Paddy	No education
10	Parvez	22	Paddy	HSC
11	Samrat	19	Pigeon	SSC
12	Md. Mojammel Hossain	26	Potato and Vegetables	VIII
13	Md. Jaher Hossain	24	Paddy and jute	BA
14	Faruk Hussain	20	Paddy	VIII

FGD No. 16

With Male Respondents

Division	District	Upazila	Union & Village
Dhaka	**Tangail**	**Basail**	**Kaoaljani , Kalia - Traditional Village**

S/N	Name	Age	Profession	Education
1	Md. Sawkot	30	Jute	V
2	Ramij Mia	40	Paddy	III
3	Hasem Mia	35	Cattle	VIII
4	Sirajul Islam	40	Paddy	VI
5	RobiulAwal	60	Wheat	No education
6	Billal Hossain	70	Cattle	No education
7	Banizur Rahman	40	Paddy	V
8	Morshed Khan	29	Jute and paddy	No education
9	Md. Amzad Mia	35	Paddy	V
10	Shafiqul Islam	32	Onion and Potatoes	V
11	Sajjad Hossain	38	Paddy	No education

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Appendix Six

Name and Particulars of the Key Informant Interviewees (KII)

1. Professor Mustafizur Rahman, Professor, Agro-economics, Former Vice Chancellor, Bangladesh Agricultural University
2. Dr. Quazi Mesbahul Alam, Former Director, Bangladesh Agriculture Research Institute (BARI)
3. Dr. Sakhawat Ali Khan, Professor, Department of Mass Communication and Journalism, Dhaka University
4. Agriculturist Dr. Md. Jahangir Alam, Deputy Director, Agricultural Information Services (AIS), Khamarbari, Dhaka.
5. Professor Dr. Helena Ferdousi, Head of the Department of Mass Communication and Journalism, Jagannath University, Dhaka.
6. Robaet Ferdous, Professor, Department of Mass Communication and Journalism, University of Dhaka.
7. Mahfuz Ullah, Senior Journalist, TV Media Personality and Development Expert.
8. Riaz Uddin Ahmed, News Editor, The Daily Star
9. Shykh Seraj, Head of the News and Director of *Channeli*; also *HMOM* planner, producer and presenter
10. Aditya Shahin, News Editor, *Channeli*
11. Toufik Ahmad, Editor, *Channlei* online
12. Professor ASM Atiqur Rahman, Institute of Social Welfare, Dhaka university
13. ShaikAbdurRazzak, Media academic and video production expert
14. Naim Ahmed Nasir-Farmer and Local Political Leader, Baghasura UP, Hobiganj Sadar

15. Shadhon Chandra Acharchya, Secretary, Baghasura UP, HobiganjSadar
16. Shafikur Rahman Talukder, UP member, Baghasura UP, HobiganjSadar
17. Md. Rukon Uddin, Social Worker, Baghasura UP, HobiganjSadar
18. Md. Hanif Mia, Agricultural Organizer and Former Banker, Rampur, Natore
19. Principal A.K. M Aliuzzaman Khan, President, Borendra Irrigation Committee, Diar Vita, Natore
20. Sohrab Hussain, UP Member Candidate, Sankarvag, Natore
21. Most. Shamima Nargis, Head Mistress, Sankarvag Govt. Primary School, Natore
22. Mr. Sanjeeb Mridha, Upazila Agriculture Officer, Patuakhali
23. Md. Najrul Islam Matubbor, Deputy Director, Agricultural Extension Department, Patuakhali,
24. Enaetur Rahman, Agricultural Journalist, *Channeli*, Representative, Patuakhali.
25. Syed Mahtab Uddin, UP Member, Uttar Muradia, 3 No, Muradia Union, Dumki, Patuakhali
26. Golam Faruk, Sub-assistant agriculture officer, Uttar Muradia Union, Dumki, Patuakhali
27. Selina Hossain, Entrepreneur, Roof Agriculture, Tangail.
28. Md. Rubel, Agriculture and Job Holder at Upazila Chair Person's Office, Tangail.
29. Keramat Ali, Best Fish Cultivator, 2008; Bagerghat
30. Sheikh Najrul Islam, Founder of Bagerhat Theatre, Bagerhat
31. Kamal Uddin, Freedom Fighter and Leader of the Farmers, Mulghar, Bagerhat
32. M. Ariful Islam, MA, MBA, Mango Gardner, Suwalok, Bandarban
33. Rasedul Islam, Employee, Chittagong University, Farmer's organizer, Maizpatty, Chittagong
34. Ariful Islam, Farmer's leader, Maizpatty, Chittagong
35. Konok Chandra, School Teacher and farmer's leader, Kalikapur, Dinajpur

Appendix Seven

Introduction to the Villages Undergoing the Survey

Dinajpur District

Transitional Village: Kalikapur

Kalikapur village is located at 2 no. Sundarban Union under Sadar Upazila of Dinajpur district. It is 14 km. away from Dinajpur district headquarter and two km. away from the Union Parishad office. There are 266 families living in this village. Almost all the families depend on agricultural activities extensively. Major agricultural activities in this area include cultivation of paddy, wheat, maize, vegetables, litchi and mango. The literacy rate of this village is 63.4% according to the census report 2011 of Bangladesh Bureau of Statistics (BBS). As per the report (BBS Census Report 2011), electricity connection reached in this village to 48.4% though the opinion leaders interviewed stated that more than 90% HHs of the village now connected with electricity.

There is a major connecting road in the village which has covered almost all the public points and turns of the village. The small roads connecting to the main road are mostly pucca while some of them are muddy. The economic conditions of most of the families are well off as per the data available from the union parishad.

Traditional Village: Sundarban

Sundarban village is situated at 2 no. Sundarban Union under Sadar Upazila of Dinajpur district. It is almost 17 km. away from Dinajpur district headquarter. About 250 families live in this village. Most of the families depend on agricultural activities extensively. Major agricultural activities in this area include cultivation of paddy, wheat, maize, vegetables, litchi, mango and little fishery. The literacy rate of this village is 53.4% (BBS: 2011). As per the BBS Census Report 2011, electricity connection reached in this village to 36.8% though the opinion leaders interviewed stated that more than 80% HHs of the village now connected with electricity. Most of the roads are made of concrete and other roads are non-concrete. Most of the families are covered with electricity connection. The economic conditions most of the families are quite satisfactory.

Hobiganj District

Transitional Village: Kalikapur Village

Kalikapur village is located at 11 no. Baghasura union under Madhabpur Upazila of Hobiganj District. The village is about 20 km away from Habiganj district headquarter and 18 km away from Madhobpur Upazila town. There are government offices, schools, Madrasa, Union office and land office in this village. A pucca (concrete) road goes through the village passing through the rich union parishad office on one side. Literacy rate among the age

group 7 and above is 28.5% (BBS: 2011). According to the opinion leaders interviewed, there is no family who starve. Most of the connecting roads are made of bricks while some of them are muddy (katcha). Of the villagers, 33.5% HHs had electricity connection while a number of families use solar power. However, the opinion leaders interviewed stated that presently most of the HHs enjoy electricity connection. Most of the people's major occupation is agriculture. Paddy is the principal crop in the village while main jute, vegetables and wheat also grow.

Traditional Village: Baghasura village

Baghasura village is also situated at same location. It is the neighboring village of Kalikapur. The distance of this village from Habiganj sadar is about 22 km and 20 km from Madhobpur upazila. It is a disadvantage village and roads are mostly katcha. Of the HHs 16% (BBS: 2011) had electricity connection while many families use solar power. However, the opinion leaders interviewed stated that presently the electricity coverage has reached more than half of the HHs in the village. There are no mentionable government office and educational institute here. The literacy rate among the age group 7 and above is 26.1% (BBS: 2011). Agriculture is the major profession for the villagers. They cultivate paddy, jute, vegetable etc.

Natore District

Transitional Village: Rampur

Rampur village is located at 5 no Harishpur union under Natore Sadar Upazila of Natore District. It is 4 km away from Natore Sadar headquarter and two km away from the union parishad office. There were 921 people who used to live in that village as per the report of District Portal, a government database. All of them depended on agricultural activities extensively. Their Major agricultural cultivation are paddy, wheat, maize, vegetables, mango, litchi and few people are engaged in fishing. As per the interviews of opinion leaders of this village, the literacy rate was around 70 percent. The opinion leader also stated that more than 85 percent households of the village were connected with electricity. Most of the connecting roads of this area were pucca and semi-pucca while some small roads were kutcha (muddy). Most of the villages were engaged in more than one agricultural occupations and their economic condition was moderately good.

Traditional Village: Shangkarvag

Sangkarvag village is one of the traditional villages of Natore District which is situated six kilometer(km.) away from district headquarter and three km. away from the Union parishad. As per the report of District Portal, a government database, total populations of this village were 2122.Almost all the families of this village depended on agricultural activities. The main cultivation of the crops of this were paddy, maize, vegetables, wheat and fruits. The literacy rates of this area were about 45 to 50 percent stated by the opinion leaders of the village. The opinion leaders also informed that about 60 percent village people were connected with electricity. Most of the village roads were kutcha and semi-pucca.

Uttar (North) Muradia: Transitional Village

Uttar (North) Muradia is situated at Muradia Union under Dumki Upazila of Patuakhali district. The distance of this village from Patuakhali Sadar is about 30 km. and from Dumki Upazila 20 km. It is a village where a high school, college and union parisad office were situated. As per the BBS Census Report 2011, 71.1 percent (BBS: 2011) people of the village were literate and sanitation condition was also moderately good. As per the BBS Census Report 2011, 63 percent house-holds were connected with electricity while the real coverage was quite higher in the opinion of the present Chairman of the Union Parisahd in the year 2016. The major roads were constructed of concrete while the muddy roads were rare in the village. Most of the villagers were fully dependent on agriculture who were engaged with more than one crop cultivation. Their main crops were Paddy, Wheat, Maize and vegetables. Some people were also involved with Fishery.

Joar Gorobdi Char: Traditional Village

Uttar (North) Muradia is situated at Muradia Union under Dumki Upazila of Patuakhali district. The distance of this village from Patuakhali Sadar is about 35 km. and 25 km. from Dumki Upazila. As per the BBS Census Report 2011, 62.1 percent people of the village were literate and sanitation condition was weaker than the Uttar Muradia village. According to the same report, 23.5 percent households were connected with electricity while the real coverage was presently somewhat higher in the year 2016 in the opinion of the present Chairman of the Union Parisahd. Most of the roads were made of soil. The villagers were mostly dependent on agriculture. Their main crops were Paddy, Wheat, Maize and vegetables while some people were also involved with Fishery.

Tangail District

Dakshinpara: Transitional Village

This village is situated at Kanchanpur Union under Basail Upazila of Tangail district. It is about 20 km away from the district headquarter and about 2 km away from Upazila town. The literacy rate in this village was 54.8 percent as per the BBS Census Report 2011. As per the same report 66.8 percent households were connected with electricity though recently almost all the households came under electricity coverage as per the statement of the opinion leaders of the village. Farming was the main source of income of the villagers. The main agricultural crops of the village were rice, jute, mustard and vegetables. Most of the roads were semi-pucca. There were a primary school, high school and a college in the village.

Kalia: Traditional Village

The village is situated at Kaoaljani Union under Basial Upazila of Tangail District. It is about 24 km away from the district headquarter and about 6 km away from Upazila town. The literacy rate in this village was 47.5 percent as per the BBS Census Report 2011. Farming is the main source of the income for the villagers. The main agricultural crops in this village are rice, mustard, fish and vegetables. As per the same report, 73.2 house-holds were covered with electricity. Most of the roads were katcha and some were semi-pucca. There was only a Madrasha in the village and no other mentionable education institutes there. Once, the region was covered by a river.

Bagerhat District

Transitional Village –Mulghar

Mulghar village is located at Mulghar Union under Fakirhat Upazila of Bagerhat district. The village is 10 km away from district headquarter and 2 km away from Fakirhat Upazila town. Most of the roads of the villages were pucca and semi-pucca. According to the opinion leaders of the village, more than 80 percent house-holds (HHs) were connected with electricity while few people used solar power system. The literacy rate among the village people was also reported as more than 80 percent. Shrimp cultivation was one of the principal occupation of the village people besides cultivating paddy, wheat and vegetables. Apart from farming, some people were involved in small businesses, jobs in private and government offices.

Traditional Village- Kakdanga

Kakdanga is a traditional village which is situated at Mulghar union under Fakirhat Upazila of Bagerhat district. It is 14 km away from the district headquarter and 4 km away from the town. Most of the roads are semi-pucca and Communication system is not developed in this locality. According to the data analysis, the literacy rate in this village is 70% and 60% HHs are covered with electricity while others use solar power system. Farming is the main source of the income for the villagers. The main agricultural crops in this village are rice, jute, fish and vegetables while many people are involved in cultivating prawn hugely.

Chittagong District

Transitional Village: Maizpatty (Fatehpur)

Maizpatty (Fatehpur) is located at Fatehpur Union under Hathazari Upazila of Chittagong District. The literacy rate of the village people is 65.9% according to the Census Report of Bangladesh Bureau of Statistics (BBS), 2011.But the literacy rate in the year of 2016 (when the field level data was gathered) was quite higher according to the statement of the opinion leaders of the villages interviewed. As per the same BBS report 90.4% HHs were connected with electricity. The roads and streets were semi-pucca and pucca. The Chittagong University is near to the locality.

Traditional Village: Suwalok Bazar

Suwalok village is situated in the 4 no. Suwalok Union under Bandarban Sadar Upazila, Bandarban District. Among the three hilly districts, Bandarban is considered the hilliest one. The rate of literacy among the population of the village Suwalok was about 28 percent (Banglapedia). Of the households, 35.13 percent had electricity connection. Among the ethnic communities living in this village, Marma, Tanchanga, Bom, Mru, Hindu, Barua, Lusai and Khumi are mentionable. The village is 10 km. away from the Bandarban district headquarter. (Source:

(http://bn.banglapedia.org/index.php?title...retrieved on 05.18.2016; http://suwalokup.bandarban.gov.bd/ retrieved on 18.05.2016.