



Annual Report 2020-21



***BARD** Pioneer in Rural Development*



Bangladesh Academy for Rural Development (BARD)

Rural Development & Co-operative Division
Ministry of Local Government, Rural Development and Co-operatives
www.bard.gov.bd



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Chapter 1

Introduction

1. Introduction

1.1 The Profile

The academy was established in 1959 to train government officials and representatives of the local government and village organisations on various subjects relating to rural development. The founding chief executive of BARD was Dr. Akhter Hameed Khan-an internationally renowned social scientist. It is an autonomous institution governed by a Board of Governors of which the Minister for Local Government, Rural Development and Cooperatives is the Chairperson. Administratively, it is attached to the Ministry of Local Government, Rural Development and Cooperatives. The Director General acts as the Chief Executive of the Academy and he is assisted by the Additional Director General and nine Directors. The activities of the Academy are carried out by its Faculty working in 9 Divisions each of which is headed by a Director. The Academy is famous for its evolved model "Comilla Approach to Rural Development" which is well-known at home and abroad, BARD received National Award in 1986 for its remarkable contribution to rural development.

1.2 Functions of the Academy

- Conduct research in rural development and allied fields.
- Conduct training of Government officials and others concerned with rural development.
- Test and experiment concepts and theories of development.
- Evaluate the programmes and activities relating to rural development.
- Provide advisory and consultative service to the government and other agencies.
- Guide and supervise national and foreign students in their dissertation works.
- Conduct national and international seminars, conferences and workshops.
- Help policy planners in the field of Rural Development.

1.3 Training

The Academy is a designated national training institute. Its training clientele includes both officials and non-officials. Officials comprise civil servants, officers of nation building departments and international participants of development organisations while the non-officials are local councilors, local leaders and members of co-operatives, students of educational institutions and members of voluntary organizations. Besides, a large number of imitational clientele including students, scholars, consultants, government officials, members of diplomatic corps and imitational agencies visit the Academy.

1.4 Research

The academy has been conducting socio-economic research since its inception. Research findings are used as training materials and inputs for initiating action research by the Academy it-self, and as information materials and policy inputs by the Ministries, Planning

Commission and Policy Makers for undertaking development programmes. In some particular cases, these are also disseminated among the international agencies and institutions.

1.5 Action Research

BARD conducts experimental projects to evolve models of improved institutions, administrative structures, coordination and methods of production. The project activities usually involve the villagers, development institutions, local councils and government officials. So far the Academy has conducted about more than 50 experimental projects on various aspects of rural development. Through these pilot experimentations, it has been able to evolve the following rural development models that have already been replicated throughout country as components of the Comilla Model:

1. Two-tier Cooperatives;
2. Thana (Presently Upazila) Training and Development Centre (TTDC);
3. Rural Works Programme (RWP); and
4. Thana (Presently Upazila) irrigation Programme (TIP).

Besides, government has been replicating two recent models of BARD which are: Comprehensive Village Development Programme (CVDP) and Small Farmer and Landless Development Project which has been replicated as Small Farmers Development Foundation (SFDF).

1.6 Facilities at BARD

A good deal of facilities has been developed at the campus to meet the needs of the trainees, visitors and campus residents. There are seven hostels including one for ladies as well as various types of guest houses with a total capacity of 390 seats. Among these, almost all hostels are equipped with hot water system. For organising training, workshops, seminars, symposiums and conferences, there are five AC classrooms, four AC conference halls, IT Lab, two AC auditoriums and a library with about 65,000 titles of books. There are bank, a post office, a cooperative store, a medical centre and a sports complex with a variety of sports facilities. Adequate residential quarters have been built for the faculty and other employees.

Chapter 2

Annual Report on Action Research 2020-21

2.1 Introduction

“The academy is expected to be a living centre of village development, where knowledge is not only collected and disseminated, but some fresh and critical thinking is done, and ideas and schemes are analysed and tested as in a laboratory.”

- Dr. Akhter Hameed Khanⁱ

“Action research can be considered as committed and interactive action plans for involving the people for improving their quality of life through participatory implementation” (Chowdhury, 2019)ⁱⁱ. Action research is one of the three major works of BARD. Since its inception, BARD has been conducting action researches as a mandate of its work with the aim of developing innovative and sustainable models of rural development. The main feature of the action research is to experiment new thoughts and ideas of development in a smaller scale to get more insights on the practical utility of the concepts before replicating those ideas in a wider scale. The action researches of BARD provides an opportunity to find out probable solutions to the prevailing problems in the rural areas. Moreover, the findings of the action research of BARD provides policy support to the government to take action plan for the greater development of rural people. It is worth mentionable that the renowned **Comilla Model of Rural Development** was the outcome of action research of BARD. The four components of Comilla Model have now become four different government programmes/departments. Two Tier Cooperatives have turned into Bangladesh Rural Development Board, Rural Works Programme (RWP) has turned into the Local Government Engineering Department (LGED), Thana Irrigation Programme (TIP) has been integrated with Bangladesh Agriculture Development Corporation (BADDC) and Thana Training and Development Centre (TTDC) has been turned into Upazila complex. Responding to the need of time and local people, BARD experimented two other projects, namely **Small Farmers & Landless Laborers Development Program (SFDP)** and **Comprehensive Village Development Programme (CVDP)** in mid seventies and early eighties. The later one is now being implemented by four organizations in one Upazila of each Sixty-Four Districts while SFDP is transformed as “Small Farmers Development Foundation (SFDF)”, a self sustaining organization. BARD believes that development is a continuous process and it has continued its efforts to develop new model for rural development considering the need of local people and changed policies. However, the newly approved BARD Act, 2017 stated that BARD can now undertake both experimental and larger development projects and programs related to rural development

across the whole country. The report focuses on the performance of action research activities of BARD conducted during 2020-21.

2.2 Project Initiation and Approval Process at BARD

Project initiation and approval process at BARD follows several stages. At first the Faculty Members of BARD generate new ideas through conducting research, carrying out observation studies and consulting different policy documents. Every year, prior to APC, new project/action research proposals are sought from the Faculty Members. Subsequently the project/action research proposals presented in the Annual Planning Conference (APC). After getting approval of the APC, the project/action research proposals are prepared following a prescribed format of Project Division of BARD. Project Division of BARD facilitates their initiative by providing technical, administrative support and making liaison with the concerned Ministries/Divisions, Planning Commission, Implementation, Monitoring and Evaluation Division (IMED), Economic Relations Division (ERD) and other relevant organizations. Considering the funding opportunities, generally three types of proposals can be formulated for conducting action research. The common funding opportunities are: i) Annual Development Program (ADP), ii) Research Grant of BARD's Revenue Budget, and iii) External Supported Project at home and abroad. Some projects are experimented through signing MoU with different academic institutes and professional bodies. Some small projects for demonstration under revenue budget got approval from the DG, BARD.

2.3 Performance of Project Activities during 2020-21

Since inception in 1959, BARD has experimented 73 new ideas on different issues of rural development in order to develop models for improved institutions, administrative structures and methods of production. According to its mandated functions, BARD constantly attempts to generate new ideas for improvement of rural community. BARD has implemented 18 projects during 2020-21. A list of the projects has been presented in **Table-1**.

Table 2.1: On-going Projects of BARD at a Glance

Category & Name of the Projects		Duration	Total Project Cost (in Lakh Tk.)		Project Personnel
			GOB	Total	
A. Projects Under ADP					
1.	Improving Livelihood of Rural People of Lalmai-Mainamati Hill Areas of Comilla through Integrated Agricultural Farming (BARD part of <i>Amar Bari Amar Khamar</i> Project)	July 2016 – June 2022	5055.00	5055.00	DPD: Dr. Shafiqul Islam APD: Dr. Md. Anowar Hossain Bhuyan Component In-charge: Mr. Salah Uddin Ibne Syed Dr. Bimal Chandra Karmakar Mr. Anas Al Islam Md. Babu Hossain Md. Saleh Ahmed
2.	BARD Modernization Project	July 2019- June 2022	4855.00	4855.00	PD: Dr. Abdul Karim APD: Mr. Md. Abu Taleb
3.	Development of BARD Physical Facilities	January 2017 – December 2021	4264.20	4264.20	PD: Ranjan Kumar Guha DPD: Salah Uddin Ibne Syed APD: Nazmul Kabir
4.	Comprehensive Village Development Programme (CVDP)	July 2018 – June 2022	642.95	642.95	DPD: Salah Uddin Ibne Syed
B. Supported under BARD Revenue Budget					
1.	Rural Livelihood Improvement through Village Based Organizations and Union Parishad	July 2021- June 2022	12.00	12.00	PD: Abdullah Al Mamun DPD: Afrin Khan DPD: Azma Mahmuda APD: Junaed Rahim
2.	Floodplain Aquaculture and Safe Food Production through Community Enterprise	July 2021- June 2022	10.00	10.00	PD: Abdullah Al Mamun DPD: Anas Al Islam
3.	Women's Education, Income & Nutrition Improvement Project (WEINIP)	July 2021- June 2022	10.00	10.00	PD: Nasima Akhter DPD: Saifun Nahar
4.	Agricultural Mechanization and Collective Farming through Community Enterprise	July 2021- June 2022	38.35	38.35	PD: Dr. Shishir Kumar Munshi APD: Babu Hossain
5.	Production of Tricho Compost Research and Develop Business Method at BARD Campus	July 2020- June 2022	03.50	03.50	PD: Dr. Shishir Kumar Munshi APD: Saleh Ahmed
6.	Development of Rural Poultry Sector and Participation of Women in Income Generating Activities through Kallayan Incubator	July 2021- June 2022	3.70	3.70	PD: Abdul Mannan

Category & Name of the Projects	Duration	Total Project Cost (in Lakh Tk.)		Project Personnel
		GOB	Total	
7. E-Parishad: Khana Profile Database for Improving Socio-economic Condition and Service Delivery in Rural Areas	July 2021-June 2022	10.00	10.00	PD: Fauzia Nasreen Sultana DPD: Junaed Rahim
8. Creating Employment Opportunities and Entrepreneurship for Orphan and Vulnerable Qawmi Madrasa Students at Home and Abroad through Vocational and Skills Development Training	July 2021-June 2022	05.00	05.00	PD: Abdullah Al Hussain APD: Kamrul Hasan
9. Mushroom Development and Cultivation Centre	July 2021-June 2022	05.00	05.00	PD: Reaz Mahmud APD: Babu Hossain
10. Livelihood Improvement of Char Lands' People through Climate Change Adaptation Practices	July 2021-June 2022	14.00	14.00	PD: Md. Reaz Mahmud APD: Md. Abdullah Al Mamun
11. Management and Extension of Dairy, Poultry and Goat Demonstration Farm	July 2021-June 2022	38.00	38.00	PD: Dr. Bimal Chandra Karmakar
12. BARD Germplasm Center (Plant museum)	July 2021-June 2022	06.00	06.00	PD: Kamrul Hasan DPD: Saleh Ahmed
13. BARD Demonstration Fish Farm	July 2021-June 2022	19.00	19.00	PD: Anas Al Islam DPD: Md. Faruk Hossain
14. Demonstration of Organic Year-Round Vegetable Production Projects in BARD Campus	July 2021-June 2022	2.50	2.50	PD: Babu Hossain

Major features and achievement of on-going projects have been presented in the following sections.

2.4 Projects Under Annual Development Programme (ADP)

2.4.1 Improving Livelihood of Rural People of Lalmai-Mainamati Hill Areas of Cumilla through Integrated Agricultural Farming (BARD part of *Amar Bari Amar Khamar* Project)

The main focus of the project is to improve livelihood of poor community of Lalmai-Mainamati Hill areas of Comilla. In 2015, BARD proposed the project to the government under the title of Improving Livelihood of Rural People of Lalmai-Mainamati Hill Areas of Cumilla through Integrated Agricultural Farming and it was approved finally in 21 November, 2016 as a part of national flagship project, *Amar Bari Amar Khamar*. The main features of the project are to familiarize new technologies to rural agrarian community with regard to agriculture practices

and skill development on income generation activities. Details of the project have been presented in the **Annexure – 1**.

2.4.2 Modernization of BARD Physical Facilities

Bangladesh Academy for Rural Development (BARD) is one of the pioneering institutes delivering a wide range of training services to a variety of clientele groups who are attending from home and abroad. Since inception in 1959, huge number of local and foreign participants have been utilizing its facilities for multiple purposes, such as short and long-term training, seminars, workshops etc. Many international organizations such as JICA, KOICA, DFID, Commonwealth Secretariat, World Bank, FAO, Asia Foundation, WFP, and UNDP have received supports in many ways. To fulfill expected demands of different stakeholders as well as to improve its existing facilities, BARD has undertaken government-funded a new development project namely 'Bangladesh Academy for Rural Development (BARD) Modernization Project'. The main purpose of the project is to improve existing infrastructure and to add some new facilities to BARD in order to its increase capacity and facilities. Details of the project have been presented in **Annexure -2**.

2.4.3 Development of BARD Physical Facilities

Most of the physical infrastructure of BARD was constructed during early sixties. Recently, government has approved the project in order to improve its age-old facilities. The main activities of the project include construction of a modern hostel, conference hall, swimming pool, school building, vehicles and full automation of BARD operation. Details of the project have been presented in **Annexure -3**.

2.4.4 Comprehensive Village Development Programme (CVDP) – 3rd Phase

Under Annual Development Program, BARD has been conducting 3rd phase of Comprehensive Village Development Program (CVDP) along with three other organizations. In the 2nd phase, BARD involved in implementing the project in sixteen Upazilas of 15 districts of 5 Divisions. Under this project, one organization in one village is formed to cater all socio-economic need of its members. Irrespective of age, sex and socio-economic condition, village people can be a member of a CVDP society. A total of 1020 comprehensive village development cooperative societies with the participation of 1.58 lakh members were formed till December 2015. The 3rd phase (four years long) of the project is being implementing by BARD since October 2018. Details of the project have been presented in **Annexure -4**.

2.5 Projects under BARD Revenue Budget

2.5.1 Rural Livelihood Improvement through Village Based Organizations and Union Parishad

This project aims to strengthen the capacity of local government and village organizations to provide support services from the government and other sources according to the need of rural people. Through this project a total of 14 village organizations were formed in South Khosbash Union of Barura Upazila under Cumilla District and the follow up activities were being done smoothly by the Union Parishad itself. The major activities of the village based organizations includes the accumulation of own capital, engagement of members in income generating activities, implementation of government programme or projects as experimental basis and development of social awareness development and so on. In 2020-21, 910 members in 14 organizations accumulated a total of Tk. 60,97,007 as savings and provided Tk. 36,86,851 as micro-credit from its own capital for different types of income generating activities. The accumulated profit for the micro-credit is deposited in organization's own bank account and then distributed among members of the organizations as yearly earning or profit of the respective society in collaboration with the representatives of Union Parishad. A number of training courses were organized for the members of the society. Detailed performance of the project has been presented in **Annexure -5**.

2.5.2 Floodplain Aquaculture and Safe Food Production through Community Enterprise

Floodplain water-bodies are one of the major common-pool resources of Bangladesh. It constitutes more than 55% of the land, and on annual basis from 26,000 km² to 82,000 km² of them get inundated in the monsoon and remain so for the next few months. Laksam and Monoharganj upazila are located in the south-western part of Comilla district. Dakatia river, a tributary of the river Meghna is the source of water for seasonal inundation of around 6,875 ha and 3,234 ha floodplain areas under Monoharganj and Laksam upazila respectively. Agricultural activities are limited with only one crop per year and average floodplain fish production in this region is nearly 0.12 ton/ha. But, in Daudkandi (another upazila of Comilla) under floodplain aquaculture around 7,500 tons/ha of fish are now produced from an area that traditionally produced around 750 tons/ha through conventional capture fisheries. Though, this common pool resource management of floodplain aquaculture had started in early 90s, but due to lack of demonstration rural people of Laksam and Monoharganj upazila don't get the benefits of this community enterprise approach. The general objective of the action research project is to promote community based fish culture in seasonal floodplains may thus be a useful tool to bring about dramatic positive changes in trends of overall productivity and livelihood improvement of the

rural people in floodplain areas. Detailed performance of the project has been presented in **Annexure - 6**.

2.5.3 Women's Education, Income and Nutrition Improvement Project (WEINIP)

Females constitute about a half of the total population in Bangladesh. A nation can never progress if its female folk remain in backward position. It is therefore, essential that women should participate in and be integrated into the development progress of the country. Mainstreaming gender issues in the development process is a major concern of the day. The need for integrating rural women in development was felt by Bangladesh Academy for Rural Development (BARD) in early sixties. BARD undertook a number of projects to eliminate massive suffering of the females and to emancipate them to uphold their position in the society since 1961. Women's Education, Income and Nutrition Improvement Project (WEINIP) was started in 1993 as a part of such efforts of BARD to improve status and empower females and evolve a replicable model for the development of females in Bangladesh. This project is comprehensive in nature; provides a package programme to all socio-economic categories of females under the village societies. The main objective of the project is to create opportunities for rural women especially among disadvantaged and poor families to participate actively in the mainstream of social and economic development activities; and to increase income, productivity as well as social values and rights in order to alleviate poverty through women's education, skills training and entrepreneurship development aiming to alleviate poverty improve the overall quality of life and empower them through integrated implementation of basic and human rights, including legal protection, health and nutrition development. Detailed performance of the project has been presented in **Annexure-7**.

2.5.4 Agricultural Mechanization and Collective Farming through Community Enterprise

The agriculture sector contributes a lot to the country's GDP, provides employment for nearly half of the labour force and supplies raw materials to the agro-based industries. Agriculture sector has been given highest priority in the government's policies such as the 7th Five Year Plan (2016-2020), National Agricultural Policy, Vision 2021 and the Sustainable Development Goals (SDGS). At the backdrop of high input prices such as seed, pesticides, fertilizer, irrigation and labour farmers cannot make profit despite subsidy from the government. Therefore, next to increasing production, reducing input prices has become a serious concern for the agriculture researchers. Most of the inputs in agriculture sector are already subsidized except human inputs (i.e., manual labour). In the context of Bangladesh, where agriculture is already

half-mechanized, further mechanization remained possible in plantation and harvesting (including threshing). However, very small farm sizes put hurdles to further mechanization of agriculture. Since mechanization of these inputs has a potential for adverse effect on the sharecroppers and agricultural wage labourers, involving them in the production system is also another concern. In the above context, Bangladesh Rural Development Academy (BARD) undertook an action research project in FY 2019-2020 titled “**Agricultural Mechanization and Collective Farming through Community Enterprise**” in order to ensure fair price of the crops as well as food security for the vast majority of the population. The action research project has been seeking to develop a farming model based on community participation and modern mechanized cultivation to meet the challenges of rice production. Details of the project have been presented in **Annexure -8**.

2.5.5 Production of Tricho Compost Research and Develop Business Method at BARD Campus

Agriculture plays a vital role in the economy of Bangladesh. Use of chemical fertilizers and pesticides are quite rampant in Bangladesh. Negative effects of these chemical fertilizers and pesticides have been well recognized. To reduce the negativities of those chemicals, it is urgent to develop appropriate sustainable technologies for maintaining a balanced soil nutrients management and contamination free healthy crops for healthy human being. Compost utilization in farming may be one of these technologies to address the issue of balanced fertilization and pesticides free healthy crops production in a sustainable manner. But, conventional method of composting from cowdung requires huge time about 5-6 months and the quantity is also poor. On the other hand, there is a chances of heavy metals (Cu, Zn, Hg, Pb, Ni and Cd) loading in the process of composting by any means. Trichoderma based composting may be a viable option to overcome these problems. Because, it is reported that trichoderma not only expedites composting process within 35-40 days but also enhances compost quality, reduces heavy metal loading in compost and acts as soil borne plant diseases fighting activator.

Despite the many beneficial advantages of trichoderma based composting method, farmers of Bangladesh are not well aware about this issue. For this, it is necessary to teach farmers through participatory learning exercise or research approach to make them ready to adopt trichoderma based composting technology and uses its outcome as compost in crops

cultivation in order to achieve the goal of sustainable agriculture. On the other hand, a lot of micro-technologies like this have been evolved and tested in field but most of them have been disappeared after a certain period. Development of trichocompost enterprise is deemed necessary to sustain this technology for the improvement of soil fertility and productivity and ensuring poison free healthy crop production in general and vegetable in particular. Side by side it also helps to increase farm employment and income opportunity.

Keeping the above views in mind, under “Production of Tricho Compost Research and Develop Business Method at BARD Campus” is attempted to develop supply chain for trichoderma based composting and crop cultivation at demonstration fields. It is expected that this project will be able to popularize this technology gradually in wider areas of Bangladesh in a sustainable manner. In order to achieve the goal of sustainable marketing infrastructure for environment friendly farming practices as trichocompost this project is endeavored. Details of the project can be seen in the **Annexure-9**

2.5.6 Development of Rural Poultry Sector and Participation of Women in Income Generating Activities through Kallayan Incubator

The poultry sub-sector is an important avenue in fostering agricultural growth and reduce malnutrition for the people in Bangladesh. It is an integral part of farming system in Bangladesh and has created direct, indirect employment opportunities including support services for about 6 million people. This sub-sector has proved as an attractive economic activity, thereby, indicating its importance for the entire economy. The sector accounts for 14% of the total value of livestock output and is growing rapidly. It is find out that poultry meat alone contributes 37% of the total meat production in Bangladesh. Poultry contributes about 22-27% of the total animal protein supply in the country (DLS 2019). It is stated that in Asia, poultry manure is used as feed for fish where poultry are raised on top of the ponds as part of an integrated system for example, fish-cum-duck farming. Development of poultry has generated considerable employment through the production and marketing of poultry and poultry products in Bangladesh. Scavenging system of poultry rearing is a century old traditional production system of the country. Indigenous chicken serve as an investment and source of security for households in addition to their use as sources of meat and eggs for consumption and of income (Muchadeyi et al. 2007). Villagers who cannot afford to maintain

the stock of cattle or goat can presumably maintain a few stocks of chicken, duck and/or pigeon. However, the rural farmers do not have much knowledge on different aspects of poultry management. Despite their importance indigenous breeds are under threat due to various factors such as changing production systems and indiscriminate crossbreeding (Besbes 2009). In spite of having huge potentiality backyard poultry did not flourish in its own way due to natural incubation, disease outbreak, predation, accident etc. In natural incubation only 15-20 eggs can be hatched whereas using Kallayan incubator 200 eggs can be incubated at a time. It is very much easy to operate this incubator and need not too much fuel to run it. Village women can easily adopt it and their contribution in national economy will be augmented through this project. The general objective of this project is to improve family poultry production and the farm families especially the women will be self-reliant. Detailed performance of the project has been presented in **Annexure-10**.

2.5.7 E-Parishad: Khana Profile Database for Improving Socio-economic Condition and Service Delivery in Rural Areas

E-parishad was initiated to introduce e-governance at the local government level for improving the service delivery system. The aim of the project is to introduce Government-to-Government (G2G) connectivity for sharing data and conducting electronic exchanges between governmental actors, and introduce Government-to-Citizen (G2C) to facilitate people's interaction with government as consumers of public services and as citizens. The project was initiated to support Digital Bangladesh from the bellow.

For improving service delivery, it was found from BARD research that local institutions such as Union Parishad needs citizen profile database, online service delivery platform, back office automation. Citizen profile database is important for immediate access to citizen information for providing different services. Otherwise, service providers need to write down the information for each service delivery. In that case database integration is also an important task for e-government. BARD initiated this project to support the union parishad to introduce e-governance for improving the service delivery system and create environment for citizen participation in decision making process. This project will also support the union parishad to develop the five year plan and tracking SDGs with true data. Details of the project can be seen in **Annexure -11**.

2.5.8 Creating Employment Opportunities and Entrepreneurship for Orphan and Vulnerable Qawmi Madrasa Students at Home and Abroad through Vocational and Skills Development Training

Over 1.5 million students are studying in 14 thousand Qawmi Madrasas in Bangladesh. Although mostly unrecognized and unregulated, this is also the fastest growing education sector in enrollment rate. There is almost no institutional facility for skills development and vocational training for this large group of students. However, various trade-based training could be a reasonable means to turn them into a skilled workforce. With this aim, Bangladesh Academy for Rural Development (BARD) has taken this initiative to see the plausibility of providing vocational and skills development training to students of Qawmi madrasas as part of its action research. Prior to initiation of the action research, the faculty members of the Academy conducted research on the issue in 2018 and 2019. Then the faculty members started discussion with the Qawmi madrasa teachers, governing body members, and the leaders of the organizations of Qawmi madrasa teachers. Despite some conservative attitudes from some people, the project successfully convinced the teachers and the leaders to allow madrasa students and teachers for vocational and skills development training. As part of this initiative, a two-week-long training titled "Basic Computer Applications and ICT Training Course" was organized for a group of 30 Qawmi Madrasa students and Teachers. The participants of the first batch, many of whom never used a computer, showed signs of excellence. After two weeks of practical training, they could use the basic MS Office operations and primary troubleshooting. Although the number of participants in the first batch was 30, the impact of this training was enormous. This initiative has been praised by the government, media, and development workers. Many of the national Dailies such as The Daily Star, bdnews24.com, The Bangladesh Sangbad Sanstha, and many other local newspapers published news on this. There were reports on multiple TV channels. Some celebrity journalists also wrote on this initiative. They have urged to spread this initiative all over the country. Many madrasas have also contacted BARD, expressing their interest to participate in such training courses at BARD. They viewed that this modality might bring a revolutionary change in this conservative stream of madrasa education without hampering their curricula. In the future, the action research project will also organize other trade-based vocational training for Qawmi madrasa students, such as electrical and electronics, mobile phone servicing, AC/fridge servicing, etc, in addition to computer and ICT training. BARD is

also considering placing this idea to the government for more comprehensive implementation after further experimentation with the approaches and modalities. Details of the project can be seen in the **Annexure-12**.

2.5.9 Mushroom Production and Development Centre

Since inception BARD has been working to develop the socio-economic condition and livelihoods for rural people of the country by involving them into various types of income generating activities. In Bangladesh, every year 1% of cultivable land is decreasing which is a great threat for our country. Hence, we need to think about alternative way to increase the production. Mushroom is a kind of crop which can be cultivated without any agricultural land and it has very high nutritive as well as economic value. BARD has started “**Mushroom Production and Development Centre**” in its campus with the following objectives;

- a) Commercial cultivation and selling of mushroom;
- b) Producing mushroom seed;
- c) Distributing mushroom seed among the farmers; and
- d) Orienting the trainers of various training courses with the mushroom production techniques.

Detail of the project can be seen in **Annexure-13**.

2.5.10 Livelihood Improvement of Char Lands’ People through Climate Change Adaptation Practices

Bangladesh is an agriculture-dependent country and about sixty-two percent people of it involve in agriculture directly and indirectly. But climate change appears to be a big challenge in the agricultural sector. The agricultural production system in the char lands of Bangladesh is characterized by rainfed cultivation, low nutrient levels in the soil, the raising of traditional crop varieties with conventional management practices, poor access to agricultural technologies and services, poor linkage to markets, low cropping system intensification and diversification. Besides, the char lands’ agriculture system is highly prone to climatic stresses (flood, river erosion, high temperature, erratic rainfall, moisture stress, and tropical cyclone) and the local farmers suffer every year. The changing climate will amplify these problems in the future and make char lands livelihoods precarious. The adoption and adaptation of climate-smart agriculture options (for example different crops or varieties, cropping systems and management practices) can significantly reduce the negative effects and build resilience to changing environmental conditions. The general objective of the project is to improve the livelihood status of char

lands people through adaptive agricultural practices and off-farm activities. Detailed performance of the project has been presented in **Annexure-14**.

2.5.11 Management and Extension of Dairy, Poultry and Goat Demonstration Farm

Livestock is an integral component of the complex farming system in Bangladesh as it not only a source of animal protein but also a major source of employment. Bangladesh has one of the highest densities of livestock in the world, 145 large ruminants/km² compared with 90 for India, 30 for Ethiopia and 20 for Brazil. Despite the highest density of cattle population in Bangladesh the productivity of all the species is far below the world average, Milk yield per head per lactation is 206kg against the Asia average of 1220kg, India-1014kg and Pakistan 1179kg. Presently the production of animal protein has maintained an upward-trend where per capita availability of animal protein presently stands at around 123 gm meat/day 167 ml milk/day and 103 eggs/year against the recommended intakes of 120 gm meat/day, 250ml milk/day and 104 eggs/year (DLS 2019).

A project named **Management and Extension of Dairy, Poultry and Goat Demonstration Farm** is being implemented by BARD since 2015. It was established by the joint venture of KOICA Bangladesh and BARD. Training on Dairy cattle production, Beef fattening, Poultry rearing and Goat farming were regularly arranged for *Lalmai-Moynamoti* and *Amar Bari Amar Khamar* project beneficiaries. Researchers, university scholars, project personnel and participants of BARD training programmes are the main clientele groups. Moreover, students from different universities, beneficiaries from different projects, national and international delegates visited the farm. Recently semi-intensive duck rearing system and goat farming have added a new dimension to this farm that is appreciated by the Ministry of Local Government, Rural Development and Co-operatives. Detailed performance of the project has been presented in **Annexure-15**.

2.5.12 BARD Germplasm Center (Plant museum)

Bangladesh is an abode of 5,000 plant species and is the secondary centre of origin of many plant species, including a large number of cultivated plants. In the past, Bangladesh did not accord enough emphasis on conservation of its plant genetic wealth. “The access to abundant plant genetic diversity will be the key to human survival. If diversity goes, we will soon follow” - this is more applicable to Bangladesh where genetic erosion is occurring rather fast and conservation efforts are weak. Three institutions in Bangladesh maintain genebanks: Bangladesh Rice Research Institute (BRRI); Bangladesh Jute Research Institute (BJRI); and

Bangladesh Agricultural Research Institute (BARI). Activities of these genebanks are confined to crop plants, these institutes are mandated to deal with. There is a large number of plant species that are 'uncared for' and are subject to extinction due to rapid population increase, urbanization, deforestation and various 'development' projects. We have already lost some of our valuable 'landraces'. Already 45 plant species of the country are on the verge of extinction. There is only about 5 per cent forest cover left. Ecological risks will multiply if we cannot improve forest covers; foods from plants will be scarce if we cannot develop improved varieties using genetic diversity. All these warrant conservation and utilization of our Plant Genetic Resources (PGR) before they become extinct. Even the activities of the existing, narrow focused genebanks suffer due to a host of problems. It is time that an integrated approach be taken to conserve the nation's wealth of PGR - field crops, horticultural crops (including fruit trees), forest species, forage crops, medicinal and floricultural plants. An integrated approach for PGR conservation is an urgent need for developing improved varieties of plants to meet the increased demand in future. Once the project site was full of bamboo bushes and unproductive trees. This project was taken to make Plant Museum cum Germplasm Center especially for fruit and medicinal plants. The project started during 2019-20 financial year under the revenue budget of BARD. Detailed performance of the project has been presented in **Annexure-16**.

2.5.13 BARD Demonstration Fish Farm Project

BARD has been recognized as a fostering ground of green revolution in Bangladesh for its activities in the early 70's. As an academy, BARD always comes out with new models and technologies for rural development, provides training on the agriculture technologies along with real life demonstration. Consequently, establishment of a demonstration fish farm at BARD campus through this project has intended to facilitate the scientific fish farming and to disseminate advanced fisheries technology to the rural aquaculturist and entrepreneurs. Detailed performance of the project has been presented in **Annexure-17**.

2.5.14 Demonstration of Year-Round Organic Vegetable Production at BARD Campus

The cultivation of vegetables in our country is increasing day by day. In Bangladesh, vegetables are grown in 2.63 percent of cultivable land. Vegetable gives much more benefit to the farmers than the other crops. Vegetables can play a vital role in elevating the nutritional status of the Bangladeshi people who suffer from severe malnutrition. Vegetables are rich

sources of essential vitamins such as A, C, niacin, riboflavin and thiamin and minerals such as calcium and iron. They contribute to the intake of essential nutrients from other foods by making them more palatable. They provide dietary fiber necessary for digestion and health and are essential for maintaining health curing nutritional disorders. Recently BARD has started “**Demonstration of Year-Round Organic Vegetable Production Project**” in its campus. Detailed performance of the project has been presented in **Annexure 18**.

2.6 Status of Proposed Projects during 2020-21

During the financial year 2020-21, a total of 5 project proposals were formulated for ADP funding and sent to Ministry for approval. Two out of five were included in the RADP list of 2021-22 as unapproved projects. On the other hand, two (2) action researches were proposed under revenue budget of BARD during the same period. Status of these projects/ action researches are stated as follows:

Sl. No	Title of the Project	Duration	Source of Fund	Status
01	Ecological Farming for Sustainable Development (Details can be seen in Annexure 19)	July 2021- June 2024	ADP	Included in the RADP list of 2021-22 as Unapproved Projects
02	Livelihood Improvement through Rural Micro Enterprise (Details can be seen in Annexure 20)	July 2021- June 2024	ADP	Included in the RADP list of 2021-22 as Unapproved Projects
03	Agricultural Mechanization and Safe Food Production through Rural Community Enterprise	-	ADP	Approved by Ministry for inclusion in the RADP list of 2021-22 as Unapproved Projects
04	Capacity Building of Rural People through Union Parishad and Village Based Organization during Post COVID-19 Period	-	ADP	Not Approved by Ministry for inclusion in the RADP list of 2021-22 as Unapproved Projects
05	Promotion of Livelihood of Marginalized Communities in Cumilla, Chandpur and Brahmanbaria District	-	ADP	Not Approved by Ministry for inclusion in the RADP list of 2021-22 as Unapproved Projects
06	Production of Tricho-Compost and Develop Business Method at BARD Campus (Details can be seen in the Annexure -9)	July 2020 - June, 22	BARD Revenue	On going as approved action research in the FY 2020-21
07	গ্রাম ভিত্তিক উন্নয়ন পরিকল্পনা গ্রহণ ও বাস্তবায়নে জনসম্পৃক্ততা বৃদ্ধি বিষয়ক প্রকল্প	July 2021 - June, 24	BARD Revenue	Will be carried over as new action research in the FY 2021-22

2.7 Project Related Training Activities during 2020-21

As divisional responsibility, the Project Division of BARD regularly organizes two training courses on **Development Project Planning and Management** and **Project Monitoring and Evaluation**. Moreover, the division also organizes special training courses on request of different sponsoring agencies. But due to Corona pandemic, these courses could not be organized. However, a day long orientation on how to run project module in BARD ERP was organized for the Faculty Members of BARD during the reporting period.

2.8 Seminar on Action Research Highlights of BARD

BARD believes that the learnings of the action researches of BARD could provide policy support to the government to formulate innovative plan of action for the development of rural people. With this view in end, BARD for the first time organizes Action Research Highlights of BARD on 12 June, 2021. This new initiative to disseminate the learnings of the action researches of BARD were appreciated by scholars and the ministry as well.



Honorable Secretary, RDCD, Mr. Md. Rezaul Ahsan providing inaugural speech in the Action Research Highlights-2021 of BARD

2.9 Actions Taken Responding the Suggestion of APC 2020-21

Suggestions	Action Taken
BARD should expand its activities throughout the country for wider replication of successful models	According to BARD Act-2017, BARD can now initiate action researches throughout the country. Initiatives have been taken to initiate wider replication of the projects of BARD
BARD could initiate a programme for the jute farmers to support them to get better market price and to motivate the farmers to use indigenous jute seeds	New proposals regarding this thematic area would be sought from the Faculty Members.
BARD should play significant role as a Center of Excellence in Rural Development as BARD could provide	The findings and learnings of the action researches of BARD provide significant policy support to the government. Initiatives would be

Suggestions	Action Taken
important policy advocacy to the Government for National level policy formulation	taken to make BARD a center of excellence in the field of rural development.
BARD could take a project on Development of Market Linkage of agricultural commodities and establish a plant museum at BARD campus	A demonstration plant museum has already been established in the BARD campus. BARD has submitted projects in the ministry for ADP funding where the issue of market linkage of agricultural commodities has been included.
BARD could work on the area of adaptation of different varieties regarding the impact of climate change	A project on Livelihood Improvement of Char Lands' People through Climate Change Adaptation Practices has already been taken by BARD.
BARD could develop a project for expatriate workers who return for the COVID pandemic and promote entrepreneurship for rural women.	BARD has submitted a project in the ministry for ADP funding where this issue entrepreneurship development has been taken with due consideration.
BARD could take project on community development in the rural areas for the capacity building of the rural community	BARD has already been implementing a project titled 'Rural Livelihood Improvement through Village Based organizations and Union Parishad' where the issue of community development has been emphasized.

2.10 Conclusion

BARD has been conducting action researches with the aim of evolving new innovative models in the field of rural development. The uniqueness of the BARD action research is to involve local organizations at the village level, local government and nation building departments. Moreover, BARD conducts action researches following the suggestions of ministry to address the priority areas of the government. The projects and action researches of BARD are now in different stages of implementation. For the upcoming year, Faculty Members proposed some new ideas as project proposal. BARD is concentrating more on the current issues of rural development so that new and innovative ideas could be generated.

Endnotes

- 1) Bangladesh Academy for Rural Development (BARD). 1983. The Works of Akhter Hameed Khan, (*The Academy for Rural Development* wrote in 1960 by Akhter Hameed Khan) volume I, p. 10.)
- 2) Chowdhury, Anwarullah. 2019. *Applied Anthropology, Committed Action Research and Planned Change*, paper presented in Faculty Council Meeting of BARD, 31 December 2019.

Projects under ADP

Improving Livelihood of Rural People of Lalmai-Mainamati Hill Areas of Cumilla through Integrated Agricultural Farming (BARD part of *Amar Bari Amar Khamar* Project)

DPD: Dr. Shafiqul Islam; APD: Dr. Md. Anowar Hossain Bhuyan

Component In-charge: Mr. Salah Uddin Ibne Syed; Dr. Bimal Chandra Karmakar;

Mr. Anas Al Islam; Md. Babu Hossain; Md. Saleh Ahmed

Background of the Project

Lalmai-Mainamati hill range is about 17 km long, 1 to 2.4 km wide and about 8 km westward from Cumilla Township. The northern part of the hill range is locally known as Mainamati, while the southern part is known as Lalmai. It covers an area of about 33 sq. km.

The present context of agriculture in this area is not so sustainable due to the aftermath of unsustainable farming practices. Therefore, it was deemed necessary to conduct an Action Research in this hilly area with modern agricultural technologies for improving their livelihood situation. There are many modern agricultural technologies that have been evolved in different agricultural research organizations but most of them have remained in some confined areas. Massive dissemination of these technologies through Action Research is needed for sustainable agricultural development in Bangladesh.

Bangladesh Academy for Rural Development (BARD) since its inception in 1959 has been working in the field of rural development for evolving successful models of rural development through Action Research. Some of the successful models evolved by this Academy have already taken by the Government and replicated throughout the country. Many of the research and action research activities of this Academy are mainly related to agriculture. BARD is always aware of the present problems of agriculture and rural development and willing to undertake Action Research to cope with defined problems. Complying with the national development priorities emanated from NADP and PRSP, BARD has attempted to undertake an Action Research for improvement of livelihood of the people of Lalmai-Mainamati Hill area through integrated agricultural farming.

Project Area: 68 villages of Adarsha Sadar, Sadar South and Burichang *Upazilas* of Cumilla District.

Project Cost: 5055.00 Lakhs

Project Duration: July 2016 to June 2021

Objectives of the Project

The general objective of the project is to improve the standard of living of the people of Lalmai-Mainamati hill areas of Cumilla through comprehensive interventions in the field of agriculture.

The specific objectives of the project are as follows:

- (i) Increase organic agricultural production and conserve agricultural land productivity;
- (ii) Enhancement of agricultural farming practices;
- (iii) Augmentation of improved cattle/dairy/poultry rearing;
- (iv) Enrichment of scientific fish culture;
- (v) Improve ground water distribution and utilization system;
- (vi) Develop marketing linkage and facilities for agricultural products; and
- (vii) Evaluation of livelihood improvement of the people of Action Research areas.

Progress of the Project during 2020-2021

1. **Fund Released** : 1059.39 lakhs
2. **Fund Utilized** : 934.41 lakhs

Sl. No	Activities	Total Target	Target 2020-21	Progress 2020-21	Cumulative Progress (2017-21)
1.	Baseline survey and creation of "Village Information Book".	In 68 villages, total 18,000 household survey and village information books will be prepared	-	-	Baseline survey of 19,300 households in 68 villages of the project areas has been completed and 68 "Village Information Books" have been prepared and distributed to the VDOs (Achievement: 100%) .
2.	Creation of VDOs	A total of 300 Village Development Organizations will be created.	10 VDOs	A total of 9 Village Development Organizations have been created throughout the project areas (Achievement: 90%) .	A total of 298 Village Development Organizations have been created throughout the project areas (Achievement: 99%) .

Sl. No	Activities	Total Target	Target 2020-21	Progress 2020-21	Cumulative Progress (2017-21)
3.	Enrollment of beneficiaries in VDOs	A total of 13,000 beneficiaries will be enrolled	1,500	A total of 1,779 beneficiaries have been enrolled in 65 VDOs (Achievement: 118%).	A total of 13,597 beneficiaries have been enrolled in 298 VDOs (Achievement: 105%).
4.	Collection of Monthly savings	Collection of Monthly savings from every member will be 200 taka only	1,80,00,000.00 taka	Tk.1,31,70,198.00 (Achievement 73%).	Total Collection of Monthly savings Tk.4,93,42,308.00
5.	Micro savings support	Total micro savings support will be 6,24,00,000 taka	1,80,00,000.00 taka	Micro savings support has been given Tk.1,31,70,198.00 (Achievement 73%).	Micro savings support has been given to 8,384 beneficiaries (Tk. 4,93,42,308.00)
6.	Loan activity	7,64,00,000 taka	4000,00,00.00 taka	A total 3,39,54,000.00 taka were distributed among the beneficiaries (Achievement 85%).	A total 6,44,79,000 taka were distributed among 3,746 beneficiaries and a total of taka 4,31,60,354.00 were collected from the beneficiaries.
7.	Revolving fund for VDOs	7,80,00,000 taka	1,58,75,000.00	-	Revolving fund (Tk. 6,21,25,000) has been given to all the VDOs (Achievement: 85%).
8.	Special Grant for ultra poor beneficiaries	7,50,00,000 taka	2,38,00,000.00 taka	2,37,00,000 were distributed among poor beneficiaries (Achievement: 99%)	7,50,00,000.00 taka were distributed among 3000 poor beneficiaries (Achievement: 100%) and refunded taka 4,33,58,285.00.
10.	Input distribution 10.1 Rice seed	33,000 kg among 6,600 beneficiaries	15,000 kg of HYV rice seeds	A total of 15,000 kg rice seeds were distributed. (Achievement 100%).	A total of 47,120 kg rice seeds were distributed among 9,424 beneficiaries (Achievement: 157%)

Sl. No	Activities	Total Target	Target 2020-21	Progress 2020-21	Cumulative Progress (2017-21)
	10.2 Bee keeping box with honey colony	Total distribution target was 1,750 beneficiaries	-	-	Five Hundred Fifty (550) Honey Bee Box were distributed among 550 beneficiaries (Achievement: 31%) .
	10.3 Vegetable seeds	Total 5,000 beneficiaries	Vegetables seeds will be distributed among 1000 beneficiaries	Vegetable seeds were distributed among 2000 beneficiaries (Achievement: 200%) .	Total 7845 beneficiaries were received vegetable seeds (Achievement: 57%) .
	10.4 Poultry birds	Total 2,00,000 chicken /ducklings among 8,000 beneficiaries	Total number of chicken/ ducklings 70,000	A total of 76,250 "Faumi" and "Sonali" chicken of 42 days old and ducklings were distributed among the beneficiaries of the project (Achievement: 108%) .	A total of 1,55,850 "Faumi" and "Sonali" chicken of 42 days old were distributed among 6,806 beneficiaries and a total of 78,650 Khaki kambel ducklings were distributed among 3837 beneficiaries of the project (Achievement: 105%) .
	10.5 Establishment of Vermi-compost unit	Total establishment of 6,000 Vermi-compost unit	Establishment of 1720 Vermi-compost unit	A total of 1500 vermi-compost units have been established in projected area (Achievement: 87%) .	A total of 5,780 vermi-compost units have been established in projected area (Achievement: 96%) . And a total 19,120 kg worm & 1,94,987 kg vermicompost were sold.
	10.6. Fish Fingerlings	2,00,000 Fingerlings among 4000 beneficiaries	1000 beneficiaries	A total of 3,510 kg fingerlings were distributed among the 1170 beneficiaries (Achievement: 117%) .	A total of 10,698 kg (7,50,000 pcs) fingerlings were distributed among the 3566 beneficiaries (Achievement: 89%) .

Sl. No	Activities	Total Target	Target 2020-21	Progress 2020-21	Cumulative Progress (2017-21)
	10.7. Fruit saplings and orchard formation	Total establishment of 500 fruit orchards	200 fruit orchards	<ul style="list-style-type: none"> A number of total 10,220 fruit plants were distributed among 192 beneficiaries for orchard formation (Achievement: 96%) Total 8,000 fruit plants were distributed where each beneficiaries get 5-7 fruit plants. 	<ul style="list-style-type: none"> A number of total 65,011 fruit plants were distributed and 714 fruit orchards were established. (Achievement: 142%)
	10.8 Distribution of Mustard seed				A total of 2,200 kg Mustard Seed were distributed among 1,844 beneficiaries of the project (Achievement: 91%) .
	10.9 Establishment of Nursery	Establishment of 15 nursery			A total of 10 nurseries were established. (Achievement: 66%)
	10.10 Procurement of Rice planter and Reapers	Total target were 30 Reapers & 15 Rice Trans planters distributed among the beneficiaries	Total 25 reapers and transplanter s will be distributed	22 reapers and transplanter were distributed in PPP model (cost sharing basis) (Achievement: 100%) .	A total 22 reapers & 7 trans-planters were distributed. (Achievement: 66%) .
	10.11 Procurement of Solar panel	Total 10 STW was established among the	A total of 10 STWs will be installed and distributed.	A total of 9 STWs were installed and distributed.	A total of 9 STWs were installed and distributed. (Achievement: 90%)

Sl. No	Activities	Total Target	Target 2020-21	Progress 2020-21	Cumulative Progress (2017-21)
		beneficiaries		(Achievement: 90%)	
11.	Training	A total of 9000 beneficiaries will be trained in 300 batches	3000 beneficiaries will be trained in 100 batches	A total of 60 batches of training courses were organized and 1800 beneficiaries were participated in the training courses. (Achievement: 60%)	A total of 329 batches of training courses were organized and 9,648 beneficiaries were participated in the training courses. (Achievement: 109%)
12	Research and Development	In total six research study will be conducted	Three Research Studies will be completed.	Three research reports has been submitted. (Achievement: 100%)	In total six research studies were conducted and reports were submitted. (Achievement: 100%)

Lessons Learnt:

1. As a result of the completion of village information book of 68 villages, now the beneficiaries could be selected appropriately which in the long run would motivate the villagers to become beneficiaries of the project.
2. The villagers felt motivated to form village based organizations as various farming inputs like rice seeds, vegetable seeds, fruit saplings, poultry/chickens, vermicompost, fish fingerlings etc. have been distributed through the project.
3. Following the project interventions, the beneficiaries have become interested to make savings and it was seen that they accumulated a total of Tk. 49.34 million savings in the project period. It indicates that the beneficiaries have gained financial affluence to make savings.
4. The beneficiaries of the project have gained skills to produce vermicompost that has increased their income. Almost 5780 beneficiaries are actively involved in producing 450 tons of vermicompost every month. Besides, mushroom production from mushroom spawns has become very popular in the project villages. This indicates that the project has

opened different avenues of income generation among the beneficiaries through enhancing their skills.

5. The beneficiaries are also given different varieties of fruit plants in the project period that has added value to fruit production in the Lalmai-Mainamati hill areas. Moreover, ducklings and chicken are also distributed among the beneficiaries in the project villages. This has promoted self-sufficiency of the beneficiaries through producing meat and eggs.
6. Distribution of good quality fish fingerlings encourages the beneficiaries towards adoption of scientific aquaculture techniques in the project area.
7. During the project period, 7 rice planting machine, 22 rice harvesters and 9 solar powered shallow tube-wells were distributed among the beneficiaries following PPP model. As a result, the beneficiaries are greatly encouraged to use modern technology of agriculture. Moreover, the beneficiaries have gained knowledge to avoid high cost of rice production.

Conclusion

As per the exit plan of the project mentioned in the project proforma, the village development organizations were being transferred to Palli Sanchay Bank from ABAK project along with the credit by 1st of July 2021. The final evaluation report of the project also made a recommendation to continue the efforts of the component for another three years in close supervision of BARD. As a result, an MoU has been signed between BARD and Palli Sanchay Bank for continuing the experimenting efforts by BARD and loan supports by Palli Sanchay Bank for another three years. Thus the actions implemented by the project will sustain in the long run and the beneficiaries will enjoy improved livelihoods.

Bangladesh Academy for Rural Development Modernization Project

PD: Dr. Abdul Karim; DPD: Mr. Md. Abu Taleb; APD: Engr. Nazmul Kabir

Background of the Project

Bangladesh Academy for Rural Development (BARD) delivers a wide range of training services to a variety of clientele groups who are attending from home and abroad. Since inception in 1959, huge number of local and foreign participants have been utilizing its facilities for multiple purposes, such as short and long-term training, seminars, workshops etc. Many international organizations such as JICA, KOICA, DFID, Commonwealth Secretariat, World Bank, FAO, Asia Foundation, WFP, UNDP have received its supports in many ways. In order to fulfill expected demands of different stakeholders as well as to improve its existing facilities, BARD has undertaken government-funded a new development project namely Bangladesh Academy for rural Development (BARD) Modernization Project. The main purpose of the project is to improve existing infrastructure and to add some new facilities to BARD in order to its increase capacity and facilities.

The specific objectives of the projects are to:

1. increase and modernize physical facilities of BARD for fulfillment of demand of local and international trainees and professionals;
2. improve the support service of training, research and action research; and
3. modernize the residential facilities of trainees and staff of BARD.

Major Components of the Project

- ✓ Landscaping and master plan of BARD
- ✓ Construction of Indoor sports complex
- ✓ Construction of Lawn tennis court
- ✓ Construction of modern washroom for BARD Cafeteria
- ✓ Construction of reception of BARD hostel
- ✓ Construction of modern kitchen for BARD Cafeteria
- ✓ Modernization of Office and residential building
- ✓ Excavating of existing ponds and construction of permanent embankment.
- ✓ Modernization of BARD Hostel
- ✓ Construction of circular road and approach road

- ✓ Reconstruction of boundary wall
- ✓ Repair/Improvement of BARD drainage system
- ✓ Construction of spouting fountain

Total Cost of the Project: BDT 4855.00lakh

Project Period: July 2019 to June 2022

Financial and Physical Progress (2020-2021)

Four components of the project (Modernization of BARD Hostel, Construction of circular road and approach road, Construction of Walkway, Reconstruction of boundary wall) have been going on. Selection of consulting firm for Drawing, Design, Supervision and quality Control has been completed and NOA has been accepted by concerned firm. The selection process of another consulting firm for Landscaping and Master Plan of BARD has been started. In 2020-21, total allocation was TK. 637.50 lakh of which Tk.610.59 lakh was spent. The physical progress of the project is about 15%.

Plan of 2021-2022

- ✓ **Finalization of two consulting firm**
- ✓ **Continuation of construction work** (Modernization of BARD Hostel, Construction of circular road and approach road, Construction of Walkway, Reconstruction of boundary wall).
- ✓ **Tendering and selection of construction firm** for Modernization of Office and residential building, water treatment plant; Construction of Lawn tennis court; Construction of modern washroom for BARD Cafeteria; construction of reception of BARD hostel; construction of modern kitchen for BARD Cafeteria; excavating of existing ponds and construction of permanent embankment; repair/improvement of BARD drainage system; construction of spouting fountain etc.

Challenges

- Project implementation hampers due to COVID 19 situation.
- Shortage of local labour as mentioned by contracting firms.
- Shortage adequate technical persons to supervise project activities.

Development of BARD Physical Facilities

PD: Ranjan Kumar Guha; DPD: Salah Uddin Ibne Syed; APD: Nazmul Kabir

Background of the Project

Most of the physical infrastructure of BARD was constructed during early sixties. A limited renovation and construction works were carried out in mid-nineties. To meet the growing need for organizing national and international trainings, seminars, conferences the existing facilities are not adequate. The demand for organizing national and international training courses is increasing day by day. On an average BARD conducts about 120 training courses including seminars and workshops in a year where about 5000 participants from home and abroad attend.

Moreover, various organizations i.e. Government, Non-government, private, socio-cultural organisations also use the physical facilities of BARD for organizing their programme which create scope for earning revenue. The existing physical facilities of the Academy are not adequate to meet such increased demands of training and conducting other academic functions. So, expansion of the physical facilities and improving logistic support of the Academy is very important in the present context. The objectives of developing physical facilities of BARD project is to enhance the institutional capacity of BARD with regard to conduct more courses, workshops and seminars effectively. Initially, the project was approved for January 2017-December 2019 with an estimated cost of Tk. 3439.65 lakh. The project was revised for January 2017-December 2020 with an estimated cost of Tk. 4264.20 lakh on 05.11.2018. Due to COVID-19, the project works were delayed as a result the project period was extended up to December 2021 without any implication on cost of the project. At the early of financial year 2020-21, the project was categorized as Low priority, hence the project works was deferred up to Nov. 2021. Finally, an allocation of Tk. 940 lakh was made during 202-21 and finally Tk 799 lakh was released due to government policy to cope with the situation of COVID-19.

Objectives of the project:

The main objective of the project is to strengthen the physical facilities of Bangladesh Academy for Rural Development (BARD) to increase its capacity to perform training, research and action research activities more efficiently.

The specific objectives of the project are to:

- i) expand and modernize physical facilities of BARD to meet up the requirements of professionals and trainees/participants of home and abroad;
- ii) develop support-services related to training, research and action researches of BARD; and
- iii) expand accommodation facilities for trainees, venue users of BARD

Major Components of the Project

- ✓ Automation of Research, Training, Project and Different Sections of BARD
- ✓ Construction of one 5 storied conference hall cum classroom
- ✓ Construction of a Three Storied School Building
- ✓ Construction of a 5 Storied Hostel with Modern Facilities
- ✓ Construction of a swimming pool

2. Total Cost of the Project: 4264.20 lakh Tk.

3. Project Period: January 2017-December 2021

4. Financial and Physical Progress (2020-21)

The project is being implemented with an estimated cost of Tk. 4264.20 lakhs from the January 2017 to December 2021. Cumulative allocation for the project was Tk. 4234.74 lakhs upto June, 2021 and cumulative expenditure was Tk.3399.95 lakh which is 79.73 % of the total project cost. The cumulative physical progress is 89%. In the year 2020-21, a revised allocation of an amount of Tk. 940 lakhs was approved subsequently Tk. 799 lakh was released. The total expenditure was Tk 794.66 lakh which is 99.45 % of released amount. Progress of major components is furnished below:

- ✓ Construction works of School building and swimming pool is completed and handed over to BARD Administration. The physical progress of Conference and Hostel Building Construction is 95% and 90 % respectively.
- ✓ The software for hostel booking, research, project, school management, library and inventory management, accounts, human resource management, accounts, Cafeteria is developed and testing on those activities at user levels is going on. The hardware and network devices are procured and installed.

5. Lesson learnt from the project:

Different committees have been playing a significant role in quality control of project works under the project. Technical support from different organizations at district level along with

consulting firm helps our technical team headed by Assistant Engineer for smooth operation of procurement and project works.

6. Problems encountered during project implementation:

COVID-19 pandemic has created a problem of labor and material supply of construction works. More over the low prioritization of the project by the government at the early of financial year leads to comparatively slow progress in the first quarter of financial year 2020-21.

7. Plan for FY 2020-2021:

External Works: Construction of approach road, Electrical connectivity to the establishments under the project. Installing solar system at hostel building.

Construction Works: Completion of Conference Building and Hostel Building works.

Automation: Handover of ERP to BARD authority.

Comprehensive Village Development Programme (CVDP) (3rd Phase)

DPD: Salah Uddin Ibne Syed

Background of the Project

Bangladesh Academy for Rural Development (BARD), Cumilla in the mid'70s took an endeavor to develop the socio-economic conditions of different professions, age, sex and economic standing-based rural population who earlier remained left out. With a view to developing a package programme for an integrated and total development of the villages by bringing all classes of people within one institutional framework, a new programme called the "Total Village Development Programme (TVDP)" was introduced by BARD in the mid nineteen seventies. It was renamed as "Comprehensive Village Development Programme (CVDP)" in the early nineteen eighties remained only as effort by BARD itself till 1988. In 1989 the project was included in the Annual Development Plan of the Government of Bangladesh and the Rural Development Academy (RDA), Bogra was chosen as a partner of BARD, Cumilla to implement the project in 40 villages each in 1991-92.

Later on 40 Comprehensive Village Development Co-operative Societies (CVDCS) were formed in 1992-93 by BARD, Cumilla in four Upazilas of Dhaka, Chittagong and Sylhet divisions. The demonstrative phase (July 1999 – June 2004) of the project completed in June 2004.

At the experimental phase CVDP was able to create some positive impact for the betterment of the rural people under the project. With the intention of extending its results throughout the country a series of discussions and seminars on the results, problems and potentials of CVDP were held in the Ministry of LGRD and Co-operatives and Planning Commission. Finally, the government was convinced to adopt CVDP as a model concept for rural development. Hence, it was decided for further implementation in 21 Upazilas of 19 districts for more four years on pilot basis before wider replication throughout the country.

The pilot phase of the project was started in July 2005 and supposed to close by June 2008. It is, indeed, extended up to June 2009. After completion, the government approved its 2nd phase with duration of six years including two years' extension between July 2009 and December 2015. The project was sponsored by the Rural Development and co-operative Division of the Ministry of LGRD & Cooperatives. BARD, RDA, BRDB and Cooperative Department are working as implementing agencies in a total of 66 Upazilas of 64 districts. BARD covers 1020 Villages of 16 Upazilas under Chittagong, Sylhet, Dhaka, Barishal and

Khulna divisions. Accordingly, there is a Comprehensive Village Development Cooperative Society in each village. These organizations are characterized by self-motivated, self-managed and self-financed. Since October 2018, CVDP-3rd phase extended 162 Upazilas of Bangladesh and CVDP-3rd Phase, BARD part is being the project in 35 upazila of Dhaka, Chittagong, Sylhet, Barishal and Khulna Divisions of Bangladesh. More than 1600 Comprehensive Village Development Cooperative Societies has been formed. Technical training Programme for income generating in respect of Tailoring and Garments Making, Plumbing and Electrical trades organised by the project where 220 participants took part in Technical Training Centre at Cumilla. Besides monthly joint meeting has been organised in regular basis by the project personnel.

Objectives of CVDP 3rd Phase

The main objective of the CVDP is to organize the village people irrespective of male-female, poor-non poor, occupations, and classes in respect of total socio-economic development and poverty reduction.

Specific objectives of the Project

- Organize a village based Comprehensive Village Development Cooperative Society for total development of each village;
- Create self-employment opportunity and enhance income in planned way according to the ability and potentiality of the youths, adolescents, women and men of all families in each village; and
- Improve standard of living and reduce poverty of the villagers through comprehensive development.

List of Upazila of CVDP-3rd Phase (BARD part)

Sl. No.	Division	District	Name of Upazila	Number of Villages
1	Dhaka	Narayangonj	Sonargaoun	75
2		Munshigonj	Gozaria	60
3			Sirajdikahn	60
4		Gopalgonj	Tungipara	60
5			Kotalipara	60
6			Moksudpur	60
7		Rajbari	Pangsha	60
8	Barishal	Barishal	Agailzara	60
9			Hizla	60
10			Uzirpur	60

Sl. No.	Division	District	Name of Upazila	Number of Villages	
11	Chittagram	Cumilla	Cumilla Adarsha Sadar	75	
12			Burichang	75	
13			Cumilla Sadar Dakhin	60	
14			Chouddagram	60	
15			Homna	60	
16		Chandpur	Sahashti	60	
17			Matlab uttar	60	
18			Hiemchar	60	
19		Brahmanbaria	Nabinagar	60	
20			Bancharampur	60	
21		Nohakhali	Begumgonj	60	
22			Shbarnachar	60	
23		Laksmipur	Ramgoti	60	
24		Feni	Chagalnaiya	60	
25			Sonagazi	60	
26		Chattagram	Anowara	60	
27		Cox's Bazar	Chokoria	60	
28			Ukhia	60	
29		Khagrachari	Matiranga	60	
30		Khulna	Narail	Lohagarha	60
31		Sylhet	Sylhet	Sylhet Sadar	75
32				Dhakhin (South) Surma	60
33			Moulibazar	Komolgonj	60
34			Hobigonj	Madabpur	60
35				Chunarughat	60
Total=				2160 Villages	

Progress of the Project of CVDP 3rd Phase, BARD part (July 2019 to June 2021)

- A total of 1975 cooperative societies (included during 1st and 2nd phase) from 35 Upazilas were carried out their monthly meetings.
- Among 19 new Upazilas included in the 3rd phase, village-wise baseline surveys have completed in 19 upazilas.
- Training on income generating activities (IGA) of three different trades for a duration of thirty days were carried out at Technical Training Center (TTC), Cumilla, Technical Training Center (TTC), Gopalganj, Bangabandhu Academy for Poverty Alleviation and Rural Development (BAPARD), Kotalipara, Trust Technical Training Institute (TTTI), Savar, Co-operative Zonal Training Institute, Narsingdi Already 480 participants have completed their training under 24 courses.

- Monthly joint meeting has been organised in regular basis by the project personnel.
- Budget allocation for 2020-21 fiscal year is BDT. 642.95 lakhs and total expenditure up to reporting period is estimated BDT 610.39 lakhs.

Future Plan for 2021-2022

- Completing the village information book.
- Conducting more training on technical skill.
- Conducting training on cooperative management and other social issues.
- Conducting training on agriculture, poultry, fishery, and livestock at upazila level.
- Conducting joint meeting and e-learning at each Upazila.

Lessons Learnt

- Although breakdown the continuity of the project substantial numbers of Comprehensive Village Development Cooperative Society or Samity successfully sustained without the assistance from the project. It is success of the theme of the project.
- The Comprehensive Village Development Cooperative Societies at Cumilla and other Upazila demonstrates unique example of sustain the societies through strong leadership, participatory planning and network with service providers. This is success story of CVDP which were initial societies evolved by BARD. Through this programme, an institutional structure following all cooperative laws has been established at each village ensuring the spontaneous participation of all people irrespective of class, sex, religion, profession, etc.
- CVDCS at the village level acts as a workable platform for the delivery of services of different Nation Building Departments and NGOs.
- The progress of the project is hampered due to lack of field level organizers at Upazila level.
- COVID-19 pandemic also hampers the project when training and monthly joint meeting not organised on schedule. At the field level the cooperative societies are facing challenge organizing weekly/monthly meeting and collection of share and savings.
- The successful comprehensive cooperative societies with strong leadership and cohesive approach able to give some financial support to the cooperative members in their financial crisis during COVID-19 pandemic.

- Through CVDP programme, optimum use of local resources, own capital investment and assistance from different government and non-government organizations have made the 'village cooperative' a 'focal point of village development'

Projects under Revenue Budget of BARD

Annexure -5

Rural Livelihood Improvement through Village Based Organizations and Union Parishad

PD: Abdullah Al Mamun; DPD: Afrin Khan; DPD: Azma Mahmuda; APD: Junaed Rahim

Background

The livelihood pattern of rural people is being changed. Earlier people of rural areas were thinking different ways rather than the modern thinking in now- a- days. But the ultimate goal of development thinking by the government and public initiatives is the livelihood improvement of the people. The rural people have their own creativity but they need some supports from the local government and village level institutions. Therefore, this project aims to strengthen the capacity of local government and village organizations to provide support services from the government and other sources according to the need of rural people. Developing database and village information book by ensuring participation of community people at the union level and using the information of database for preparing plan of local government at the grassroots level and its implementation in participatory way is one of the main strategies of this project. Earlier in 2012, a project was implemented in South Khosbash Union under Barura Upazia of Comilla district. Based on this concept and the donors are highly satisfied with the result. But the project duration was only 18 months. Through this project a total of 13 village organizations were formed in this Union but the follow up activities were not done smoothly even the Union Parishad itself has been monitoring the activities. Therefore, this project aims to follow up of its activities of village based organization and develop a triangular model with government institutions, Union Parishad and village based organizations.

Objectives of the Project:

The broad objective of the project is to strengthen the capacity of the local government and village level organization for livelihood improvement of rural people.

Specific Objectives:

The specific objectives of the project are:

- (1) to organize monthly meeting with the respective personnel of village based organizations and Union Parishad representatives for planning and monitoring of livelihood improvement activities;
- (2) to prepare the village profile by the local enumerators incorporating all relevant information for preparing Ward Plan Book (WPB);
- (3) to provide training to the local people to become entrepreneur to involve themselves in income generating activities;
- (4) to involve the local government (*Union Parishad*) for monitoring activities of village organizations for livelihood improvement; and
- (5) to implement government programme or projects as experimental projects specially *Amar Gram Amar Shohor* in participatory manners with the villagers and representatives of Union Parishad.

Justification of the Project

Rural people have the potential resources but they are not fully aware of utilizing the available local resources for their livelihood improvement. Therefore, the project aims to build capacities to utilize their potential resources or assets available in local areas especially in the *Union Parishad* and village based organizations. The livelihood assets or resources are mainly human capital, social capital, natural capital, physical capital and financial capital.

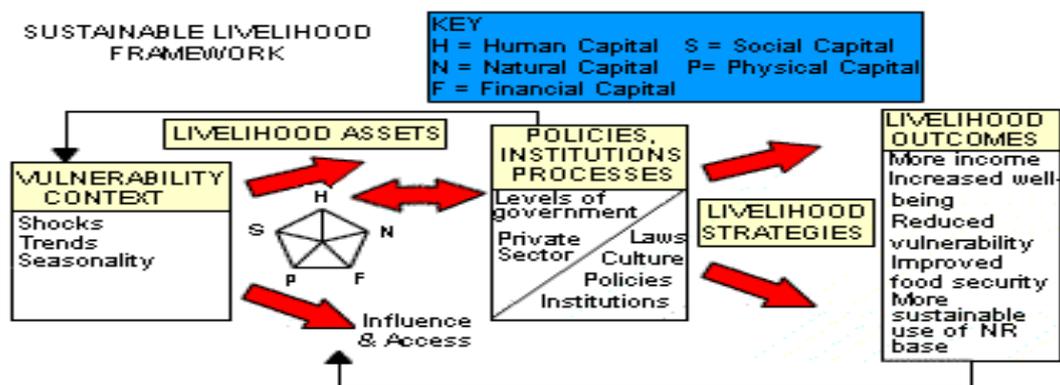


Figure 1: Sustainable Livelihood Framework

Human capital of the rural people of Bangladesh includes skills, knowledge, good health, ability to work, motivation and spiritual strength and the ability to adapt and react. Natural capital of the rural people of Bangladesh contains access to land, access to water, access to forests and other vegetation, access to common property resources (land, lakes, roads, etc.), wildlife and nature and environmental resources. Social capital includes being part of networks, relations of trust, reciprocity and exchange, being member of informal and formal groups, access to institutions specially the Union *Parishad* and, knowing powerful people. Physical capital consists of shelter, transport facilities, access to water (drinking, irrigation etc.), access to energy and telecommunication facilities, access to production storage facilities, market places. The financial capital includes possessions like cash, savings, bank deposits, assets (livestock, gold, jewelry etc.), resources on credit like loans and mortgages, regular flows like wages, allowances, remittances, pensions, access to insurance schemes.

The livelihood improvements are based on three basic indicators which are access to assets, capabilities to effectively use these assets and activities using the capabilities and assets as a means of living. Even the people of rural areas have all those livelihood assets but they do not have the capabilities to effectively use of these assets. These capabilities are mainly, having the required knowledge, having the required skills, having the required confidence, being able to fulfill one's own potential, being able to function well physically, socially and culturally, and being able to achieve self-respect and respect of others. The activities using the capabilities and assets as a means of living are based on capabilities and assets; the household performs activities to obtain a means of living (production, labour, trade, selling a service, begging etc.) and social interactions to improve access to assets and capabilities. Therefore, the project will create a triangular relationship among the *Union Parishad*; Village based organization and government for the livelihood improvement of the rural people.

The government of Bangladesh has undertaken a mega project "My Village My Town: Extension of Urban Amenities in Each Village" to reduce the gap between the cities and the rural areas. The main aim of this project is to fulfil the Bangabandhu's dream of Golden Bengal through providing the essential facilities to all the villages including improved roads and communications, supply of safe and pure drinking water, modern healthcare services and proper treatment, standard education, proper sanitation and waste management, improvement of rural waterway communication, supply of power and minerals, setting-up of

bio-gas plants and solar power panels, computers with high-speed internets, electrical equipment and standard consumer goods, growth centers and markets of commodity goods, flourish cottage and other industries, bank loan for marginal and small entrepreneurs; establish amusement parks, sports and recreation centers, libraries and community spaces, agricultural equipment servicing centers and workshops, training of rural youths and entrepreneurs etc.

This is a very highly ambitious, diversified, complex and much-expected national development programme. The government has been taking several steps to implement this programme including the preparation of time-bound working plan, Upazila master plan and organizing national workshops 'to innovate creative working strategy to face the challenges to implement the programme and creating coordinated initiatives among the related organizations.' Initially the pilot project will be implemented in 15 villages of Bangladesh.

'According to sources at the Local Government Division, eight villages in eight upazilas of eight divisions and seven in selected areas (of Haor, Char, Hill, Coast, Barind, Midland beels and two adjoining economic zones) will be chosen for this programme.' According to LGRD Minister-"a committee has been working to this effect and the work on this project is underway".

Recently we have come across a number of interesting articles published in our national dailies regarding this programme, where many researchers, writers, academics, urban and rural planners and architects expressed their valuable comments, concerns, suggestions and recommendations. Explicitly they have to face numerous challenges in implementing this programme successfully.

The great challenge is to make an appropriate, pragmatic and sustainable plan for providing all the essential facilities suitable for a particular village to become a modern city. We can initiate our expedition from the learning of our rights and wrongs what we did in case of our existing metropolitan cities, divisional towns and district towns. We can also look around the world of 'rural development planning' as well as the Sustainable Development Goal (SDG) no. 11 of the United Nations which focuses on "sustainable cities and communities."

The SDGs are great guidelines, but not a complete panacea or a one-size-fits-all solution for cities across the continents but are only the first step in addressing a city's unique advantages and disadvantages (AZ Morshed/Oct20). Each village needs to be considered based on its

geographical, demographical, economic, social and cultural heritage, and potentials for future development with local resources, local strengths and local entrepreneurships.

In Bangladesh we have lots of villages having unique characteristics. A village of fishermen requires a fish-landing center or cold storage while a village of small cottage industries favors improved infrastructures with modern machinery and equipment. A village on the river bank essentially needs an embankment to save their lives and properties from flood while some other villages need improvement of their waterway communications. So the peculiarity of each village needs to be taken into consideration while providing other amenities mostly common to all such as electricity, digital systems, roads, markets etc. Specific needs of the villages should be incorporated into the mainstream multi-dimensional projects.

According to some urban and rural planners, an 'integrated rural planning' would be very much effective to carry out the programme efficiently where the engagement of all the stakeholders of a particular village must have to be ensured. Some of the activities of this project have already been continuing under different names or projects or departments or ministries. So there is a strong need for coordinating or revising or modifying or integrating some of the activities. Neighborhood plans need to be consistent with wider local plans.

We have to evolve a system for people's participation in rural and urban planning process. The main aim of public participation is to give a sense of empowerment to the people and increase public confidence in the government. Collaborative planning intensifies consensus-building which "involves a good faith effort to meet the interests of all stakeholders" (Susskind et al., 1999), where stakeholders are individuals or groups likely to be affected by a decision. Consultations and open discussions with the general public, community groups, voluntary bodies, special interest groups, businesses, private sectors and other stakeholders also help to resolve any dispute at an early stage of planning process.

In UK, 'publicity and consultation become required components of the statutory planning system providing local people with opportunities to comment on and object to development plans and planning applications.' It gives people power and responsibility to make real choices about planning, and experience the real consequences of those choices.

We must recognize that our rural people are inherently capable of making meaningful choices as they care deeply about the look and feel by heart their places where they live in. People's

participation gives communities a greater sense of ownership over decisions that make a big difference to their quality of life. The rural people have been eagerly waiting with great hopes and aspirations to see their villages equipped with modern amenities according to their own preferences.

Likewise, we can imagine one day our villages will be transformed into modern cities with all essential amenities but without the ill-effects of cities such as traffic jams, water logging, haphazard waste, dirty air and water, slums and squatters, encroachment etc.

Therefore, it is significantly required to formulate the pragmatic five-years Union (lowest tiers of the local government in Bangladesh) and Ward (each Union consists of 9 Wards) Development plan with addressing the local people's need and participation for implementation of My Village My Town Program of the Bangladesh government.

Major Activities/Component of the Project:

The following major components of the project will be implemented:

Quarterly Meeting with Leaders of Village Organizations and PIC: Each three-month a meeting is being organized with the village leaders (Chairman and Secretary or their authorized person) from 13 village societies under *Khosbash (South) Union Parishad*. The meetings are being arranged by the field officers of this project and BARD officials attend the meeting to monitor its activities specially the financial and economic activities. A report is being prepared by the project officials to submit into the Project Implementation Committee (PIC) meeting which is being held in every month.

Village Profile: Household census will be conducted for the preparation of village level profile. For data collection there would be two members of Group (one male and one female) in each Ward under the leadership of Ward Member and field supervisor. The field supervisor will be selected and appointed for the project period as temporary basis from south Khosbash Union. Some previous experience will be taken under consideration for this appointment. The field investigators will be selected from the Union Parishad and specifically from the village level organizational members also. The Investigators will be responsible for data collection. The data will be validated by the leadership of women member of the Ward. On the basis of data collected through household census, nine ward information books will be prepared by the local government functionaries with the technical support of BARD.

Village Status Report: The report will analyze the poverty and development status of the villages and provide the required information to the policy planners specially the *Union Parishad* functionaries. Especially the organizational report will be articulated in this report. This report will be monitored by the *Union Parishad* in every three months in the Union Parishad meeting.

Training: The need based training /workshops are being organized on Income Generating Activities (IGAs) especially for the women entrepreneurs from the fourteen village organizations under south *Khosbash Union Parishad* for their livelihood improvement.

Project Area: South *Khosbash Union* of Barura Upazila under Comilla district was selected for experimentation of the project.

Progress During 2020-2021

- i. The project activities are running in 13 different villages. As of June 2021, total member of the village-based organizations is 910 and number of shares become 3516.
- ii. The cumulative savings of all the members are BDT 27,81,849 and of which BDT 36,86,851 were distributed among the members as loan till June 2021. Total share become BDT 3,51,600.
- iii. To implement the *Amar Gram Amar Shohor* programme, Ward Based Five-year Development Plans have been published for nine different Wards and Union Parishad.
- iv. 15 beneficiaries have received training on Sewing Machine Operation and 15 participants have received training on Plumbing, Sanitary and Electrical works at Technical Training Centre (TTC), Cumilla.
- v. A total of 1500 ducklings were distributed to the women beneficiaries of the project.
- vi. A total of 510 beneficiaries were trained in income generating activities. These trainings were modern poultry and livestock rearing, modern rice and fish farming, basic computer application and ICT.
- vii. Annual General Meeting has been held in four organizations and BDT. 6,80,000 has distributed among the beneficiaries.

Plan for 2021-22 FY

- o Entrepreneurship development through supply of gas cylinder in two different societies of the project areas for implementation of *Amar Gram Amar Shohor* Project of the government;

- Awareness raising on different issues like health and primary health care, family planning, early marriage, dowry and other social issues;
- For smooth implementation of *Amar Gram Amar Shohor* Project of the government 13 village meeting will be organized in the project areas;
- Organize quarterly meeting with representative of Union Parishad and executive committee members of 14 village organizations.

Floodplain Aquaculture and Safe Food Production through Community Enterprise

PD: Abdullah Al Mamun; DPD: Anas Al Islam

Background

Floodplain waterbodies are one of the major common-pool resources of Bangladesh. It constitutes more than 55% of the land, and on annual basis from 26,000 km² to 82,000 km² of them get inundated in the monsoon and remain so for the next few months. Laksam and Monoharganj upazila are located in the south-western part of Comilla district. Dakatia river, a tributary of the river Meghna is the source of water for seasonal inundation of around 6,875 ha and 3,234 ha floodplain areas under Monoharganj and Laksam upazila respectively. Agricultural activities are limited with only one crop per year and average floodplain fish production in this region is nearly 0.12 ton/ha. But, in Daudkandi (another upazila of Comilla) under floodplain aquaculture around 7,500 tons/ha of fish are now produced from an area that traditionally produced around 750 tons/ha through conventional capture fisheries. Though, this common pool resource management of floodplain aquaculture had started in early 90s, but due to lack of demonstration rural people of Laksam and Monoharganj upazila don't get the benefits of this community enterprise approach.

The present government vows their mandate "My Village My Town" to realize the declaration of article 16 of the Bangladesh Constitution, transform the rural economy and bring all the urban facilities to every village. Community enterprise approach is a development action (community initiative for social business) and implies efforts for mobilization and utilization of local resources through active participation of total community.

Bangladesh Academy for Rural Development (BARD) introduced very successful models for rural development in the journey of last sixty years. BARD-experimented activities like bottom-up community development initiatives, collateral free micro-credit operation, comprehensive village development initiatives etc. spread quickly throughout the country with patronage of the government during the sixties and the seventies.

The concept of community enterprise approach intertwines various aspects of resource management within the community for sustainable community development. The people within social and cultural linkage and common economic interests regardless of classes, religion, profession and gender form the society or community of such approach. An NGO called SHISUK (Shikkha Swasthyo Unnoyon Karzokrom) is giving technical assistance to BARD for scaling up this potential technology in wider areas.

Marketing and post-harvest loss management are key factors for sustainability of this approach. In Bangladesh, present post-harvest loss is presumed to be devastating, about 20 to 30% in different fish and fishery products due to improper marketing system and lack of post-harvest management. So, beside production interventions appropriate strategies need to be taken to develop the marketing system and to mitigate the post-harvest loss of harvested fish.

In January 2019, a seminar was arranged at BARD campus where public representatives, land owners and community leaders from the floodplain areas of Laksham and Monoharganj Upazila of Cumilla district were participated. Feasibility of floodplain aquaculture in the following areas was discussed in detail. The participants of the seminar visited the floodplain community enterprises in Daudkandi Upazila at the same date. After three months, in March 2019 they showed their interest in floodplain aquaculture through community enterprise model. A series of meeting took place from March to June 2019 with the community members about formulation and management of enterprises. In July 2019, the action research was proposed and approved by the experts in the 52nd Annual Planning Conference of BARD.

Objectives of the Action Research:

Specific objectives of the action research are:

- (i) To demonstrate floodplain aquaculture project through community enterprise management approach;
- (ii) To build awareness about safe food production in the project area;
- (iii) To create employment opportunities for the youth of this area by fostering forward and backward linkages depending on the enterprise; and
- (iv) To disseminate the lesson learnt from the action research amongst communities and development partners to generate necessary policy initiatives for wider replication.

Location and Duration of the Action Research:

The project is being implemented in different floodplains of Monoharganj and Laksam Upazila of Cumilla district. Through the baseline survey and feasibility study the best potential sites were identified for community mobilization and capacity building. It is to mention that these interventions need at least three years to attain sustainable result. First year is needed for preparatory activities like community mobilization, capital accumulation, formation of organization, infrastructure development. Second year is needed to tune the management of

the production (species selection, nursery management, stocking density, feeding, disease management etc.), market system development and post-harvest loss management of the harvest. And finally, third year is for stabilization and consolidation for sustainability. The project successfully passed its second year.

Major Components of the Action Research:

- i. Site selection and baseline survey;
- ii. Community mobilization for enterprise formation and capital accumulation;
- iii. Motivational and skill development training or exposure visit of the community people;
- iv. Safe food production; and
- v. Post-harvest loss mitigation of fishes.

Action Research Budget

The total budget of the action for FY 2020-21 was BDT. 8.76 lac.

Major Achievement of the Action Research

- As part of community mobilization, four different locations in the Laksam and Monoharganj upazilas were chosen, and multiple meetings with interested farmers/landowners were held. So far, four community enterprises have been established.
- For a better understanding of the community enterprise, several exposure visits to floodplain aquaculture project locations in Daudkandi Upazila were organized.
- Each of the three enterprises has received a share capital of BDT 1,00,000 from BARD. The dividends from these shares will be distributed to the needy people in the neighborhood.
- Three communities have formed management committees to ensure the enterprise runs well.
- The shares were apportioned based on the size of the land (1 share per 10 decimal).
- Approximately ten lakh carp fingerlings have been placed in ponds and canals throughout the project area for aquaculture in the floodplains.
- BDT. 38 lacs in operational capital has been accumulated through landowner share distribution.

- In monsoon 2020, total fish production was 73.5 metric tons. These fish were worth roughly BDT 9.8 million on the open market.

Progress of the Action Research in 2020-21

- In 2020-21, two enterprises of Laksham upazila conducted the fish culture in Ichapura and Atakora floodplains. The income, expenditure and profit were as follows.

Name of the Enterprise	Area of the floodplain	Total Capital (in BDT)	Total Cost (in BDT)	Total Production	Total Income (in BDT)	Profit
<i>Ichapura Plabonbhumi Matsyacash Community Enterprise</i>	170 acre	14,80,000/-	44,32,296/-	39 MT	56,24,000/-	11,92,000
<i>Atakora-Mijiapara Ekota Matsyacash Community Enterprise</i>	110 acre	23,64,000/-	33,75,173/-	34.5 MT	40,98,000/-	7,22,827
Total=	280 acre	38,44,000/-	78,07,469/-	73.5 MT	97,22,000/-	19,14,827

- Landowners got the lease money for their land and shareholders got dividend of BDT. 200-400 per share.

Contribution of the Action Research in building resilience against COVID-19 Pandemic

- During the monsoon season, the floodplains provide no advantage to the community, except for certain native fish taken as common pool resources by community members. The community was able to make some money by selling fish throughout the pandemic because of the project initiatives.
- The ecosystem was greatly enriched with biomass as a result of fish culture in the floodplains, resulting in better rice production at a lower cost than in prior years.

Lesson Learnt from the Action Research:

- Previously, these floodplain areas were under-productive, with average productivity of less than 200 kg per hectare, whereas the project area's production increased by at least 5 times as a result of the project intervention.
- It is found that, production of rice has increased by 20% in the floodplains and cost of production per acre has decreased by 23% in the boro season.
- Community based approach found to be effective in case of safe food production. The floodplain aquaculture communities agreed to stop indiscriminate use of harmful chemicals in their crop field.

- The PPP (Public, Private & People) model of community development showed a better performance in Laksham area in terms of community mobilization, enterprise formation and aquaculture production than Daudkandi area.
- This project contributes to the development of a successful management approach for common pool resource management.
- Surprisingly, community members have grown their businesses in a short period of time and amassed a large quantity of wealth.
- Good governance in the social company management clearly suggests the viability of expanding the community-driven development method in Bangladesh's similar ecological zones.

Plan for FY 2021-22:

In 2021-22, process of enterprise formation, management of social business and other aspects of community enterprise model will be identified, analyzed and documented. Management of floodplain community enterprises along with fish production and marketing activities will be continued. Skill development training will be arranged at project areas for better understanding on scientific fish culture and financial and organizational management of enterprises. A seminar will be organized to disseminate the findings of the action research.

Women's Education, Income & Nutrition Improvement Project (WEINIP)

PD: Nasima Akhter; DPD: Saifun Nahar

Background

Females constitute about a half of the total population in Bangladesh, a nation can never progress if its female folk remain in backward position. It is therefore, essential that women should participate in and be integrated into the development progress of the country. Gender equality and women empowerment is one of the 17 Sustainable Development Goals, but also integral to all dimensions of inclusive and sustainable development. Mainstreaming gender issues in the development process is a major concern of the day. The need for integrating rural women in development was felt by Bangladesh Academy for Rural Development (BARD) in early sixties. BARD undertook a number of projects to eliminate massive suffering of the females and to emancipate them to uphold their position in the society since its inception.

Women's Education, Income and Nutrition Improvement Project (WEINIP) was started as a part of such efforts of BARD to improve status and empower females and evolve a replicable model for the development of females in Bangladesh. After some modification now WEINIP activities of BARD is comprehensive in nature and follows the consists of sustainable village organization, build capacity with continuing education through horizontal learning and training system provided to the Village based Women's Societies (VWS) members for the development of the quality of life in the rural areas by a package programmes to all socio-economic categories of females under the village societies considering Women's Education, Entrepreneurship and Empowerment Development (WEEED) .

Project Areas: The project was experimented (July 2019 to June 2020) in 24 villages under four upazilas namely Comilla Sadar, Sadar South, Burichang and Barura of Comilla District. After that it was extended in June 2021.

Project Cost: The total budget for the year 2020 -21 was Tk. 10.00 lakh from BARD revenue fund.

Objectives of the Project

The main objective of the project is to create opportunities for rural women especially among disadvantaged and poor families to participate actively in the mainstream of social and economic development activities and to increase income for their empowerment.

The Specific Objectives of the Project are:

- i. To empower rural women and youth by enhancing organizational managerial skill, management capacity and leadership and providing effective training in poverty reduction through entrepreneurial development to achieve SDG's goals;
- ii. To develop the creative abilities of women and young people as entrepreneurs and to build capital for self-reliance, to provide loans on easy terms, to collect loans at low rates and to distribute dividends;
- iii. To establish visible resource and exhibition centres for increasing the income generation of women entrepreneurs and provide linkages in product marketing;
- iv. To implement participatory plans for education at the individual, family and community level upholding social values and rights preventing gender inequality and abuse, save motherhood, health and environmental development;
- v. To provide appropriate technology and materials from all government and non-government development agencies and to use information technology and establish effective network in obtaining services.

Achievement of the WEINIP Project during 2020-2021 & Plan for 2021-2022

Sl. No	Activities	July 2020- June 2021		Cumulative Progress July 1993 – June 2021	Plan for July 2021- June 2022
		Target	Achievement (%)		
A	Organization Activities				
1.	No of organizations	24	24	24	24
2.	Number of member enrolled (Excluding Dropouts)	25	4	1112	25
3.	Household coverage (Excluding Dropouts)	25	4	932	25
B	Economic Activities (in lakh)				
4.	Capital accumulation	12,000,00	923081 (77%)	11291827	120000
	a) Shares	4,000,00	266127 (67%)	3537850	400000
	b) Savings	8,000,00	656954 (82%)	7753977	800000
5.	Credit disbursed (Amount/ Person)	22,00,000 (210)	91200 (41%) (113)	23160600 (2916)	2200000 (210)
	a) Own capital (person)	22,00,000 (210)	91200 (41%) (113)	21784600 (2785)	2200000 (210)
	b) Revolving fund	-	-	1376000 (132)	-
6.	Credit realization /Amount/ Person	22,00,000 (210)	2273900 (103%) (128)	23993909 (3007)	2200000 (210)
	a) Own capital	22,00,000 (210)	2273900(103%) (128)	22551909 (2876)	2200000 (210)
	b) Revolving fund			1376000 (131)	-

Sl. No	Activities	July 2020- June 2021		Cumulative Progress July 1993 – June 2021	Plan for July 2021- June 2022
		Target	Achievement (%)		
C	Human Resource Development				
	Training				
	a) Regular training: Nos./ Participants	24 (1,152)	24 (100%) (1090)	825 (21467)	24 (1152)
	b) Special training Refreshers: Nos./ Participants	05 (150)	5 (100%) (148)	83 (1211)	5 (150)
	c) Workshop/Seminar on observation of national & international days. Nos./ Participants	04 (300)	4 (100%) (307)	85 (338)	4 (300)
D	Education & co- curricular Activities				
8.	a) Signature Campaign & folk show, competition	28 (1,600)	23 (82%) (1259)	280 (11167)	28 (1600)
	b) Motivational programme on formal & non formal education for Children Nos./ Participants	140	140 (100%)	2768	140
	c) Learning through weekly & special meeting. Nos./ Participants	1290	1266 (98%)	23179	1290
E	Health & Reproductive Rights				
9.	Primary reproductive health care services	1100	1106 (101%)	9667	1100
10	Tube well /Supply water (Both)	220	205 (93%)	3887	220
	- Organization level (Tube well)	85	78 (92%)	1437	85
	- Village level (Tube well)	140	127 (91%)	2451	135
11.	Sanitary latrine (Both)	200	192 (96%)	6879	200
	- Organization level	100	92 (92%)	1531	100
	Village level	100	100 (100%)	5348	100
F	Environment Development:				
	a) Fruit, wood bearing and herbal trees plantation (Nos)	10000	9918 (99%)	39777	10000
	b) Vegetable production (HHs Nos.)	700	693 (99%)	9870	700
	c) Nursery & seed shed	06	06 (100%)	69	06
12.	Nutrition garden (demonstration plot)	04	04 (100%)	52	04
13	Waste management campaign	01	01 (100%)	43	01
G	Rights and Laws				
14.	Utahan Boithook & joint meeting	20	16 (18%)	234	20
15.	Workshop on conflict management	03	03 (100%)	57	03
16.	Preparation & distribution of IEC and BCC material (posters and leaflet)	500	492 (99%)	4858	500
H	Planning, Dissemination and Documentation				
17.	Annual planning conference (APC) related workshop: Nos./ Participants	01(260)	01 (100%) 260 (100%)	22 (4790)	01 (260)
18.	Research evaluation Work, Monitoring & WID Reports	52	52 (100%)	469	52
19.	Rally and demonstration	03	03 (100%)	373	03
20.	Annual General Meeting (AGM): Nos./ Participants	08(600)	06 (75%)	128	08

Lessons Learnt from the Project

- Female groups accumulate micro savings which create the opportunity for need based micro credit with low repayment rate. Women are now using handsome amount of credit successfully.
- Using own Capital as Credit with reasonable duration and flexibility increased economic empowerment of rural women.
- Imparting trade based skill training to the females along with credit and technical support increased option of choice in production side and their bargaining power.
- Women entrepreneurs' trade fair and demonstration of produced goods promote their economic role and increased the capabilities to access in the market channel.
- Women's intellectual strength and networking capacity has been increased by providing technical education and ICT training.
- Advanced Legal Education with support and advocacy campaign in presence of advocate has positive effect to reduce violence against women and children.
- Reproductive Health care and Safe motherhood enhanced by TBAs and health, nutrition and environmental education which promoted by study visits and horizontal learning.
- Training and social Workshop on public awareness about corona (COVID-19) prevention with food and health materials has distributed to strengthen community wellbeing.

Problems encountered during project implementation

- Some field based monitoring and follow up activities disrupted due to Corona (COVID-19) pandemic and other academic responsibility.
- Inadequate local resources, budget and logistic supports.
- Inadequate Training allowances and materials etc.

Future Plan of 2021-2022

On the basis of WEINIP experience a DPP nearly 3400.00 lakhs taka and one year budget of the WEINIP amounting 10 lakhs is now under process. The future plan of project for rural women's advancement and human resource development has been given below:

- Establish a woman training centre/ corner for skill development through regular training (fortnightly) as well as special training related with different trades and IGAs;
- Establish entrepreneur's visible production unit and resource exhibition centres by Village based Women Societies (VWS);

- Organize exposé visits and study tour campaign and reward /prizes distribution by subject based competition with executive committee workers and members of VWS for horizontal learning;
- Arrange Village based special and jointly meeting, utahan boithak and conducting Annual Planning Conference (APC) with rally and demonstration;
- Provide required credit from own capital to generate IGAs and institutional support followed by rules of one digit interest rate for entrepreneurship development;
- Conducting workshop/seminar on observation of important national and international days, AGM, preparation of IEC and BCC materials etc.

Agricultural Mechanization and Collective Farming through Community Enterprise

PD: Dr. Shishir Kumar Munshi; APD: Babu Hossain

Background

The agriculture sector contributes a lot to the country's GDP, provides employment for nearly half of the labour force and supplies raw materials to the agro-based industries. For a country like Bangladesh, a sustainable and farmers-friendly agriculture is one of the prerequisites for graduating from a developing to a developed country. Agriculture sector has been given highest priority in the government's policies such as the 7th Five Year Plan (2016-2020), National Agricultural Policy, Vision 2021 and the Sustainable Development Goals (SDGS). The implications of such policy priorities are also evident as the overall subsidy in agricultural inputs and availability of agricultural credit increased significantly. The outcome of these policies and programmatic interventions is also very positive since food grain production has been showing an upward tendency in the recent years (Bangladesh Economic Review 2019). Despite many such achievements, Bangladesh's agricultural sector faces some crucial challenges. Although agriculture still dominates land use in Bangladesh at roughly 9.0 million hectares, land declined steadily since 1976 and markedly after 2000. Cropland declined by 1.0 million hectares since 1976, whilst an equivalent area went to rural and urban settlements and industry (FPMU 2013). On the other hand, the population of Bangladesh, which is currently about 164.69 million, is increasing at 1.03 per cent every year. As a result, there is always a demand for additional crop production on the existing agricultural land of the country. Therefore, timely cultivation, proper use of materials and harvesting with minimal wastage are now essential for obtaining more crops from degrading land.

Poor price of the produce, particularly rice, is another challenge for farmers producing food grain in Bangladesh. At the backdrop of high input prices such as seed, pesticides, fertilizer, irrigation and labour farmers cannot make profit despite subsidy from the government. Therefore, next to increasing production, reducing input prices has become a serious concern for the agriculture researchers. Most of the inputs in agriculture sector are already subsidized except human inputs (i.e., manual labour). In addition, a large number of agricultural laborers are shifting to the industrial and transport sectors. Therefore mechanization of the activities done by manual labour was the only option left. In the context of Bangladesh, where agriculture is already half-mechanized, further mechanization remained possible in plantation

and harvesting (including threshing). However, very small farm sizes put hurdles to further mechanization of agriculture. Since mechanization of these inputs has a potential for adverse effect on the sharecroppers and agricultural wage labourers, involving them in the production system is also another concern.

In the above context, Bangladesh Rural Development Academy (BARD) undertook an action research project in FY 2019-2020 titled “Agricultural Mechanization and Collective Farming through Community Enterprise” in order to ensure fair price of the crops as well as food security for the vast majority of the population. The action research project has been seeking to develop a farming model based on community participation and modern mechanized cultivation to meet the challenges of rice production.

Project Area

At the action research stage, the project is being implemented in three villages under Adarsha Sadar and Laksam Upazila of Cumilla District. The areas have been presented in the table below:

Sl. No.	Upazila	Union	Village	Name of Community Enterprise
01	Adarsha Sadar	Kalirbazar	Raichon	Raichon Comprehensive Village Development Society
02	Laksam	Kandirpar	Noapara, Chongaon	Noapara-Chongaon Collective Agricultural Farming Community Enterprise

A total of 80 acres of land was taken under this project. In Raichow area of the project 87 number of farmers participated in the project along with a total of 30 acres of cultivable land. In the Noapara, Chongaon villages the number of farmers (including sharecroppers) are 68 while their total land amount is 50 acres.

Project Cost (Budget)

Financial Year	Total Budget (Taka)	Actual Cost (Taka)
2019-2020	68,80,000.00	61,88,120.00
2020-2021	38,35,000.00	8,60,561.00

Objectives of the Project

As discussed in the background section, the main purpose of the action research project was to develop a sustainable model for crop production that will involve input subsidy, mechanization and maximum utilization of cultivable lands organizing the various stakeholders related to

agriculture such as the owner, tenants, owner-cum tenants, sharecroppers and the government. The ultimate objective of the project was to minimize cost of crop production to make agriculture profitable for farmers.

The specific objectives of the projects were:

1. to increase agricultural production and productivity through mechanization.
2. to reduce the cost of agricultural production through collective farming practices.
3. to extent appropriate agricultural technology to the farmers.
4. to increase farmers' income and improve their livelihood.

Progress of the Project during 2019-2020

As per the agreement signed between BARD, Upazila Agriculture Office and the Community Enterprise of the farmers, all the three parties were responsible for specific tasks related to the major activities of the project. Most of the responsibilities were crosscutting among the three parties. As the implementing agency, **BARD** played the most crucial roles which include, among others:

- Organizing the rural people and motivating them for taking part in the project
- Conducting a digital land survey and obtaining large plots removing ailes between various pieces of lands.
- Conducting a baseline survey with the help of the local administration
- Providing various kinds of input supports including machinery in the different steps of crop production
- Helping the enterprise proper marketing of their produce

The **Upazila Agriculture Office** played a vital role in between BARD and the beneficiaries of the project. The office motivated the rural people and regularly provided advisory services related to cropping. They also maintained the liaison with the local government representatives and the local administration for better functioning of the project.

The major activities of the **Community Enterprise** were to organize the land owners to form a farmers' enterprise under the project, selection of an executive body from the members of the enterprise, and resource accumulation and management, managing bank account, selling of share and managing the activities related to crop production and marketing etc.

Progress of the Project during 2020-2021

The achievements of the project and their targets against the major activities in the current fiscal year (2020-2021) have been presented in the table below in brief.

<u>Sl.</u>	<u>Activities</u>	<u>Targets in 2020-2021</u>	<u>Achievement during 2020-2021</u>
01	Agreement	Signing an agreement between the community enterprise, Upazila Agriculture Office and BARD	Agreement signed between the parties in 11 October 2020 to implementing the project activities through the community enterprise
02	Rice seed distribution	Distribution of paddy seeds	970 kg of HYV paddy seeds was distributed among the farmers in Boro season of the two project area, 1130 kg seeds were distributed in aman seasons.
03	Seedlings	Growing paddy seedlings for plantation in the project lands	The Community Enterprise managed raising of the seedlings
04	Preparing land	-	The land was prepared by the community enterprise
05	Rice Transplanting	-	Paddy seedling transplantation through rice transplanter started on 07 January 2021. It took only 07 days to complete transplantation in the entire land area
06	Weeding, fertilizing, irrigation	-	These activities were managed by the Community Enterprise with regular advisory support from the Upazila Agriculture Office.
07	Harvesting and Threshing	-	BARD provided the combine harvester to the community enterprise. The Members of the community enterprise also received sufficient training on operating and maintenance of the harvester. The enterprise paid for the fuel. A total of 10 days were required to complete harvesting and threshing rice of the entire project area.

Project related Training Activities during 2020-2021

The major training activities in the current fiscal year (2020-2021) have been presented in the table below in brief.

<u>Sl.</u>	<u>Training Name</u>	<u>Implementations Dates</u>	<u>Stakeholders</u>	<u>Implementations Locations</u>
01	Practical training in rice planting with the help of Rice Transplanter	01.02.2021	30 farmers of community enterprise	Project area

<u>Sl.</u>	<u>Training Name</u>	<u>Implementations Dates</u>	<u>Stakeholders</u>	<u>Implementations Locations</u>
02	Practical training on intercropping of paddy crop	11.02.2021	30 farmers of community enterprise	Project area
03	Practical training on water and irrigation management in paddy crop production	20.02.2021	30 farmers of community enterprise	Project area
04	Practical training on extension of IPM technology in paddy crop production	27.02.2021	30 farmers of community enterprise	Project area
05	Practical training on Disease identification and control management on the spot in paddy crop production	13.03.2021	30 farmers of community enterprise	Project area
06	Practical training on Production techniques of rice seedlings in plastic trays for planting with rice transplanters	03.04.2021	30 farmers of community enterprise	Project area
07	Practical training in aman rice planting with the help of Rice Transplanter	27.06.2021	30 farmers of community enterprise	Project area
08	Practical training on Production techniques of aman rice seedlings in plastic trays for planting with rice transplanters	27.06.2021	30 farmers of community enterprise	Project area

Lesson Learnt from the Project

The project was initiated in FY 2019-2020. Since it involves various stakeholders related to agriculture such as the land owner, tenants, owner-cum tenants, sharecroppers, the local and the central government departments, initial six months was spent on motivating and organizing them, particularly the farmers. Until June 2021, the project was able to provide support during the Boro 2019 to Aus 2021 seasons. Therefore, the experimentation as well as learning are still continuing. Conclusion about the solid learning from this action research project could be drawn after completion of several agriculture seasons and experimenting all the ideas. However, the learnings from the project so far are also worthy. They have been noted below in brief:

a) The Negotiation Part

As mentioned earlier, this is an experimental project still under implementation with a view to develop a sustainable model for crop production involving both agricultural subsidy, mechanization, proper land utilization involving government agencies and a farmers' organization. The ultimate objective of the project was to minimize cost of crop production to make agriculture profitable for farmers. In the beginning of the fiscal year, the project officials of BARD shared the idea with farmers of different villages. There were series of long meetings with them. The village people curiously wanted to know why it would be a better modality than their existing practices. While everyone else was interested to embrace the new technologies such as transplanter, harvester and other input and advisory supports, they denied the idea of removing aisles. On the other hand, the project officials had to put emphasis on this idea because the maximum return from mechanization was not possible without removing the aisles. Another reason for their (project's) rigidity with removing aisles was that, this was the only new idea of the project which was likely to have a serious demonstration effect. Farmers (particularly the land owners) denial to removing aisles cannot be unjustified. One reason is that in rural areas the land records are not up to date. In the rural traditional society, when a farmer receives cultivable lands as ancestral property, the total land is demarcated manually among all heirs and often these demarcations are not registered or muted with proper authority. However, this does not hamper their land rights or cultivation. However, removing the demarcation lines (aisles) may create serious problems if a farmer wants to sell his land or does not want to stay in the project any longer. Therefore, the mistrust or lack of confidence in the mind of the farmers was logical. Negotiation continued for months with farmers of different locations. Some farmers group gave up the project's idea while a few of them came forward. Finally, the project was possible to start in two different areas.

b) Engaging the Local Administration and Local Government

BARD is an academic institute. Therefore, the faculty members do not have firsthand experience of working with the rural people in service delivery cases. On the other hand, the Upzila administration and the local government representatives are very closely tied with the rural people from various occupational groups, and hence the rural people have confidence

in them. As a result, BARD decided to keep the local administration and the local government as a partner to implement this project. The return of this decision was very encouraging. When the Upazila administration (i.e., the UNO and Agriculture Officer) demonstrated their existence with the project, it gave huge confidence to the intended beneficiaries. Added to this was the technical support from the Upazila Agriculture Office. When the farmers saw the local administration as partner of the project, their mental resistance declined a lot and it became easy for the project personnel to work. The local administration also owned the project seriously. Without this ownership, it would be impossible to convince the beneficiaries.

c) Forming the Community Enterprise

The project's ultimate goal was developing a sustainable model. Therefore, forming a farmers' association was essential since the project wanted the farmers themselves would decide on the activities as well as the share of their produce. The project did not want to use the word 'cooperative' for some reasons. Although in practice a cooperative modality was used ultimately, the term 'Community Enterprise' was preferred instead. The role of the Community Enterprise was clearly defined in the agreement. One requirement was that the Community Enterprise would select an Executive Committee for performing the various tasks related to the project including opening a bank account and its operation, deciding on the crops, sharing costs of different inputs and distributing share of produces. The project's aim is that the Community Enterprise will ultimately run the system when there is no project support.

d) Digital Land Survey and Removing the Aisles (demarcation lines)

This was the most sensitive part of the project. As mentioned earlier, it was necessary for the project to obtain larger cultivation plots to get the maximum benefits from mechanization as well as collective farming. Therefore, remove the demarcation lines (aisles) between the small plots became essential but, at the same time, very challenging. To overcome this challenge, the project communicated with the GPS experts. The farmers' as well as the project's concern was regaining the same plots (in exact amount and location) any time if any farmer/owner wants to sell his or her land, wishes to leave the project or, in the worst case, if the action

research project does not prove to be viable. After series of discussions and real-world trails, a GPS firm was given the GPS based digital land survey task. Before the survey began, the farmers were practically shown the survey method and the outcome and hence convinced. The final report of the survey was also shared with the farmers along with names of owners and amount of land in each plots. Although it seemed impossible at the beginning that the farmers would agree to remove their aisles, astonishingly the farmers themselves removed the ages old demarcation lines using tractors. At Laksam area, the survey divided 141 plots of various sizes amounting 42 acres and owned by 68 farmers into 9 mega blocks depending on the level of the lands.

e) Input Supply

Since this is an action research project and the farmers required to be motivated, the project paid the cost of preparing the land following the land survey and supplied seeds (BRRRI dhan 74, BRRRI dhan 46, BRRRI dhan 49, BRRRI dhan 87, BRRRI dhan 22 paddy seed) to the Community Enterprise. The seed was purchased by BARD from BADC, BRRRI and given to the Enterprise while the costs of other inputs were transferred to the bank account of the Enterprise. The farmers grew seedlings in a part of the land for plantation later on. The plantation of paddy seedlings was done using two transplanters provided from the project. The executive committee of the Enterprise decided on the various issues related to cultivation and cropping including crop to be cultivated and their variety, labour employment, plantation time and harvesting etc. BARD as well as the Upazila Agriculture Office provided logistic and technical supports as per agreement. The plantation ceremony took place on 17th January 2020 in the presence of the Honorable Minister, Ministry of Local Government, Rural Development and Cooperatives Mr. Md. Tazul Islam as the Chief Guest and Mr. Md. Rezaul Ahsan as the Special Guest. The plantation in the entire 41 acres land took place only 7 days using two transplanters.

f) Harvesting

For harvesting and threshing, BARD purchased one combine harvester and handed it over to the Community Enterprise on 26 April 2020. The Enterprise chose two drivers to operate the machine. The required training on operation and maintenance was provided by the supplying agency. The harvesting of the Boro rice formally started on 27 April 2020 in the presence of the project officials, officials from Upazila administration, upazila agriculture office and local

government representatives. It is essential to note that the country was going through a serious crisis with the COVID-19 pandemic at that time. The movement of people as well as vehicles was restricted due to the spread of the virus. As a result, a serious dearth of laborers to harvest the paddy was obvious. Therefore, the combine harvester was like a blessing to the farmers. The machine harvests as well as threshes the rice fully automatically at the same time. Only one man drove the harvester for 6-8 hours a day and thus completed harvesting and threshing the entire 41 acres of paddy fields in 06 days. The time as well as the cost of the harvesting seemed miraculous to the farmers. This machine also had some serious demonstration effect on other farmers. No sooner the *Boro* harvesting was done, dozens of more farmers showed their interest to join the project with more lands in the area.

g) Distribution of Produce Share

Once the harvesting and threshing was complete, the share of the produce was decided as per share of land ownership ratio.

Selling of Rice

Selling of the rice at a fair price has become a concern for the farmers nowadays. Although the government has a mechanism to procure rice from the farmers at a relatively fair price, farmers cannot take this opportunity due to the mechanisms created by middlemen and local traders. An individual farmer needs cash immediately after harvesting the crop to make payments of labourers and other inputs. Since procurement by the Food Department takes time, farmers need to sell their rice to the local traders for cash. However, as a member of the Community Enterprise, the farmers did not face this reality. Due to communication with the Food Department from BARD and the local administration, selling the rice was rather easy this time. The local office of the Food Department procured a large portion of the rice directly from the Enterprise at the price fixed by the government. Earlier it was almost impossible for a farmer to sell their rice at this price.

Table: Comparison of the Traditional and Mechanised Cultivation through Community Enterprise

Heads of Expenditure	Cultivation in traditional method	Mechanised Cultivation through Community Enterprise
	Expenses Taka/acre	Expenses Taka/acre
1) Preparing seedlings (seeds, land preparation, irrigation, fertilizer, pesticide and other caring)	4000	5000
2) Removing Demarcation Lines (Aisles)	0	930
3) Preparing soil/tillage	2800	2500
4) Leveling of land	900	850
5) Plantation of seedlings	8400	1500
6) Fertilizer	4200	3850
7) Irrigation	5775	5775
8) Weeding and other cares	4600	4200
9) Pesticides	4000	4000
10) Harvesting	10500	2500
11) Threshing and drying	2000	2400
12) Other expenses (if any)	0	0
13) Total Expenses (Taka)	47175	32505
14) Production per acre (maund)	54	60
15) Production coast per acre (Taka)	56160	62400
16) Production coast per maund (Taka)	874	542
17) Profit per acre (Taka)	8995	28895
18) BCR	1.22	1.91

It is clear from the above table that mechanised cultivation through the Community Enterprise has increased the production as well as reduced the cost of production .

h) Replicability and Sustainability of the Project:

Two most crucial issues of this project is its replicability and sustainability. Since the project is yet to complete an agriculture cycle, any conclusive statement on the project cannot be made at the moment. However, the following learnings can be utilized where applicable:

Scenario A: Fuller Implementation

The fuller implementation of the project would mean organising the farmers, providing the major inputs such as seeds, land preparation costs including digital survey, transplanter, combine harvester, and other technical and advisory supports from Local Administration and Upazila Agriculture Office. Undoubtedly, fuller implementation of the project will involve huge costs. However, fuller implementation of the project can be done for one or two agriculture seasons in every new area. A fuller implementation over an agriculture season or two will have serious demonstration effect on others and thus more and more farmers will be interested to cultivate in this manner. The price of the machinery such as the transplanter and the combine harvester involves the highest cost in fuller implementation. Since the government has already introduced subsidy for these machineries for the farmers, the farmers' organization can easily afford them once organized.

Scenario B: Partial Implementation

Partial implementation of the project would mean organising the farmers, providing the non-major inputs such as seeds, digital survey, and other technical and advisory supports from Local Administration and Upazila Agriculture Office. This will only exclude the price of the heavy machinery at the end of the project. However, the project can help procure the heavy machinery at subsidized price from the government. Once the farmers are convinced that removing aisles (demarcation lines) will not create any serious problem and mechanized cultivation will increase production and reduce production cost, they will be interested to form community enterprise and go for purchasing the machinery. The government can help them forming the community enterprise and provide the non-major inputs.

Plan for FY 2021-2022

Continuing the activities for at least two more years in the same locations.

Production of Tricho Compost Research and Develop Business Method at BARD Campus

PD: Dr. Shishir Kumar Munshi; APD: Saleh Ahmed

Background

Agriculture in Bangladesh strongly depends on chemical fertilizers and pesticides whose negative effects have been well recognized. To reduce the negativities of those chemicals, it is urgent to develop appropriate sustainable technologies for maintaining a balanced soil nutrients management and contamination free healthy crops for healthy human being. Compost utilization in farming may be one of these technologies to address the issue of balanced fertilization and pesticides free healthy crops production in a sustainable manner. But, conventional method of composting from cow dung requires huge time about 5-6 months and the quantity is also poor. On the other hand, there is a chances of heavy metals (Cu, Zn, Hg, Pb, Ni and Cd) loading in the process of composting by any means. Trichoderma based composting may be a viable option to overcome the problems. Because, it is reported that trichoderma not only expedites composting process within 35-40 days but also enhances compost quality, reduces heavy metal loading in compost and acts as soil borne plant diseases fighting activator.

Despite the many beneficial advantages of trichoderma based composting method, farmers of Bangladesh are not well aware about this issue. For this, it is necessary to teach farmers through participatory learning exercise or research approach to make them ready to adopt trichoderma based composting technology and uses its outcome as compost in crops cultivation in order to achieve the goal of sustainable agriculture. On the other hand, a lot of micro-technologies like this have been evolved and tested in field but most of them have been disappeared after a certain period. Development of trichocompost enterprise is deemed necessary to sustain this technology for the improvement of soil fertility and productivity and ensuring poison free healthy crop production in general and vegetable in particular. Side by side it also helps to increase farm employment and income opportunity.

Keeping the above views in mind, under “Production of Tricho Compost Research and Develop Business Method at BARD Campus” is attempted to develop supply chain for trichoderma based composting and crop cultivation at Demonstration fields. It is expected that this project will be able to popularize this technology gradually in wider areas of Bangladesh in a

sustainable manner. It is believed that this project will be able to create a huge demand of trichocompost at grass root level and ensure its sustainable marketing and thus results in pollution free environment for healthy crop production. In order to achieve the goal of sustainable marketing infrastructure for environment friendly farming practices as trichocompost this project is endeavored.

Project Area: BARD Campus

Sponsoring Organizations: BARD

Project Duration: 02 years (July 2020 to June, 22)

The Objectives

The general objective of the project is to production of trichoderma based compost (trichocompost), research and development with different stakeholder and business model of trichoderma based composting. The specific objectives are to:

- i) production of compost by trichoderma at bard campus;
- ii) assess the efficacy of tricho-compost in comparison with other compost both conventional and fortified compost through result demonstration;
- iii) identify the ways for developing business model of trichoderma based composting network.

Activities and mode of operations

Sl. No.	Activities	Mode of operation
1.	Promotional activities for Tricoderma Based Composed Unit (TBCU) and Enterprise Development	
a.	Establishment of Tricoderma Based Compost Production Unit (TBCPU) in bard campus	BARD faculty members will act as Researchers. Result based presentation and scientific results will be help for enterprise development.
b.	Supply of trichoderma suspension	Initially, Trichoderma suspension will be collected from BAU and then it will be used for Tricho-ompost production.
c.	Effect of Trichocompost in vegetable production through demonstration.	3 demonstration plots will be established for 3 major vegetables in demonstration fields to find out the efficacy of Trichocompost on different crops compared to conventional fertilization practices in respect of pest severity and productivity.
d.	Organized field day	A number of 1 field days will be organized in demonstration areas for effective extension of project activities.

Trichoderma Based Compost Production Plan

Sl. No.	TBCPU Established	Total Organic Manure Production (Kg.)
Year-1	2	2 Unit x 10 time x 50 kg = 1000 kg
Year-2	2	3 Unit x 10 time x 50 kg = 1500 kg
Total		2,500 kg

Sustainability issue of the activities

After completion of the project it is expected that the demand of tricho compost may be increased and a network of supply chain for Trichoderma Based Composting Production and Enterprise Development. Therefore, the marketing of trichoderma suspension as composting activator will be created. It is well known fact the economic viability, products quality and creation of continued product demand are the key drivers of sustainability of any project. The above mentioned project implementation approaches like, farmers participatory and income generating approaches will be helpful for sustain of the project. In addition to compost produced from trichoderma, it will play a very important role in roof gardening and help in producing nontoxic food production

Development of Rural Poultry Sector and Participation of Women in Income Generating Activities through Kallayan Incubator

PD: Abdul Mannan

Background

The poultry sub-sector is an important avenue in fostering agricultural growth and reduce malnutrition for the people in Bangladesh. It is an integral part of farming system in Bangladesh and has created direct, indirect employment opportunity including support services for about 6 million people. This sub-sector has proved as an attractive economic activity, thereby, indicating its importance for the entire economy. The sector accounts for 14% of the total value of livestock output and is growing rapidly. It is find out that poultry meat alone contributes 37% of the total meat production in Bangladesh. Poultry contributes about 22-27% of the total animal protein supply in the country (DLS 2019). It is stated that in Asia, poultry manure is used as feed for fish where poultry are raised on top of the ponds as part of an integrated system for example, fish-cum-duck farming. Development of poultry has generated considerable employment through the production and marketing of poultry and poultry products in Bangladesh. Scavenging system of poultry rearing is a century old traditional production system of the country. Indigenous chicken serve as an investment and source of security for households in addition to their use as sources of meat and eggs for consumption and of income (Muchadeyi et al. 2007). Villagers who cannot afford to maintain the stock of cattle or goat can presumably maintain a few stocks of chicken, duck and/or pigeon. However, the rural farmers do not have much knowledge on different aspects of poultry management. Despite their importance indigenous breeds are under threat due to various factors such as changing production systems and indiscriminate crossbreeding (Besbes 2009). In spite of having huge potentiality backyard poultry did not flourish in its own way due to natural incubation, disease outbreak, predation, accident etc. In natural incubation only 15-20 eggs can be hatched whereas using Kallayan incubator 200 eggs can be incubated at a time. It is very much easy to operate this incubator and need not too much fuel to run it. Village women can easily adopt it and their contribution in national economy will be augmented through this project.

Project area: Adarsha sadar, Lalmai, Nangalkot and Manohorgonj upazilla of Cumilla district

Project cost: 3.7 lakh taka

Objectives of the Project

The general objective of this project is to improve family poultry production and the farm families especially the women will be self-reliant.

The Specific objectives are:

- Incubate different types of poultry species egg locally using Kallayan incubator instead of broody hen.
- Improve the production of Indigenous poultry species.
- Conduct field level experiment and extension of Kallayan incubator.
- Improve the socio-economic status of village women through income generating activities using this incubator.

Lesson learned from the project

Village women were very much interested and they gladly accepted this device. They hope that this incubator will be a potential means to augment their income and they will improve their livelihood. The overall performance of this incubator is satisfactory; hatchability in terms of chicken egg is 80%, duck 75%, quail 60% and turkey 50%. Many poultry entrepreneurs bought this incubator and they reviewed positively about it. The beneficiaries of Livelihood Improvement of Char Lands' People through Adaptation Practices are using this incubator to hatch poultry egg.

Problems encountered during project implementation

Scarcity of fertile egg is the major problem of this project.

Plan for FY 2021-2022

- 30 more incubators will be bought and handed over among the beneficiaries of this project.
- Training courses will be arranged to disseminate knowledge how to run this Kallayan incubator and get maximum output.
- Project documentary will be published.

E-Parishad: Khana Profile Database for Improving Socio-economic Condition and Service Delivery in Rural Areas

PD: Fouzia Nasreen Sultana; DPD: Junaed Rahim

Background

Majority of the people of Bangladesh live in the rural areas. According to World Bank (2019), 62.59% people live in the rural areas whereas 37.41% of the people live in the urban areas. Against this backdrop, the government of Bangladesh has been paying utmost importance to the development of the rural areas of the country. With the aim of developing the livelihood of rural people and minimizing the population pressure in urban areas, the present government has announced the plan of 'My Village My Town: Transforming the Urban Facilities to Rural Areas' in the election manifesto of 2018. Government believes that sustainable development could only be achieved through developing the livelihood of the rural people. Government has given importance on rural development in the 7th Five Year Plan and formulated seven strategies such as: 1) income generation in the rural areas and poverty alleviation; 2) rural poverty reduction and strengthening rural economy; 3) developing value chain management in agriculture through cooperative; 4) institutional development and developing the capacity of the rural institutions; 5) strengthening rural cooperative movement; 6) developing service delivery system through promotion of ICT; and 7) developing rural communication and rural goods transportation.

In the 7th Five Year Plan creation of rural database (information about human resource, cooperatives, natural and social capital etc.) has been emphasized with a view to make rural service delivery more effective. Against this backdrop, the project on 'E-Parishad: Khana Profile Database for Improving Socio-economic Condition and Service Delivery' in Rural Areas was undertaken by BARD. For better service delivery, Union Parishad and other government and non-government organizations need diversified information of the rural households. At present, UP provides services using an online platform. As a result, information of the rural households is stored in the UP which creates opportunity to provide better service by the UP. But identification of the members of a rural household and making development plans by UP are not getting done automatically. Through this project, diversified information of the rural households will be kept in the UP online portal. UP can initiate developing plans and add new services as required by the rural people by using this database. Moreover, security of the

information of the rural households will also be ensured through this project. If this model can be replicated in the other UPs of the country, UPs could provide better service to the people using both online and offline approach. Government can also get huge information of the rural people through this project. As a result, government will be able to initiate new plan of development for the rural people by using the data of this project. BARD initiated this project to support the union parishad to introduce e-governance for improving the service delivery system and create environment for citizen participation in decision making process. This project will also support the union parishad to develop the five year plan and tracking SDGs with true data.

Project Area: Sadar Dakshin Upazila, Cumilla

Project Cost: 10 (Ten) Lakh (2020-2021)

Duration of the Project: July 2020-June 2023

Objectives of the Project:

The general objective of this experimental project is to support union parishad with khana database for improving rural development plan and service delivery process. The specific Objectives are to:

- create citizen database for improving service delivery process at the local level;
- integrate union citizen database and create the upazila citizen database;
- support local government institutes with the planning process with true local data
- Union Parishad back office automation and capacity building on e-governance

Activities and Practical Experience of the Project during Last FY (2020-21)

During the last FY, emphasize was given on making a software so that database of the citizen of the Union could be created. Following that, the software was experimented in a Union of the Sadar Dakkhin Upazila of Cumilla district. Through this software, a complete profile of the citizens of the Union is created so that UP can use that data to formulate plan of action and can provide different types of services to the common people.

Initially, data was collected from Bijoypur Union of Sadar Dakkhin Upazila of Cumilla district. Considering the COVID-19 situation and the instruction of Director General of BARD, 10 young boys and girls were recruited to collect data from the Union. Ten tabs were used to collect data. Prior to the data collection, the recruited 10 young boys and girls were given 2 days long

training on how to collect data using tabs and software. Moreover, Deputy Director of Local Government (DDLG), Upazila Chairman, Upazila Nirbahi Officer (UNO), Chairman and members of Bijoypur Union Parishad were invited to give an idea of the E-Parishad project. Moreover, 3 elite villagers (2 males and 1 female) were invited from 26 villages of the Union to brief about the project. For this, a one day long orientation programme was organized. Honorable Director General of BARD Mr. Md. Shahjahan chaired the inaugural session of that orientation programme were as respected Deputy Commissioner of Cumilla district Mr. Abul Fazal Mir was invited as Chief Guest.

After that the data collectors completed data collection from all household of the Union within the period from October 2020 to May 2021.

Even though, UNO, Upazila Chairman, Union Parishad Chairman and common villagers were oriented about the activities of the project, the data collectors faced a number of obstacles during data collection. These are:

- The household members sometimes were seen reluctant to provide data to the data collectors. Different government and non-government organizations have already collected household data but in return they did not get any service. Moreover, during the COVID-19, data were collected from the household but no incentives were provided to the villagers. As a result, the common villagers were not seen interested to provide data to the data collectors.
- The number of variables used in the household data collection were high. Therefore, the common household members were not seen interested to spend much time in providing data to the data collectors. Moreover, the villagers felt fear to provide data regarding land properties, source of income, bank account etc. The elite villagers those who attended the orientation programme of the project did not disseminate the information to the common villagers properly. The members of Union Parishad also did not take any initiatives to disseminate the information to the common villagers. Against this backdrop, following the directions of Director general of BARD, the project implementation committee provided the following suggestions:
 - Arranging meeting with the common villagers to disseminate the information of the project activities.
 - Identifying the basic and most important variables in the software so that these can be collected at the initial stage. The other variables could be collected by the UP

management. The software can be upgraded accordingly. At the same time, the information regarding land properties could be kept in the software as it is a vital variable to identify poverty situation.

- The members of UP should be engaged more actively in this process.
- The information of this project could be disseminated through mosques in the villages especially during the Jumma Friday prayer.

Following the above suggestions, a meeting was held with the villagers of Rajarkhola and Kismat of Bijaypur Union. The villagers informed that they did not know anything about the data collection of this project. If they knew that it was a project of BARD and intended to make the service delivery of UP more easier, the villagers would willingly provide information, they informed in the meeting. The villagers informed that they would help the data collectors through providing household information. The meeting made positive impact of data collection. Moreover, necessary up gradation was made in the software and the Imams in the villages were informed about the project activities so that they could disseminate during the Jumma prayer. Three members of UP were involved in this process. As there was no provision of honorarium, the task was not so easy to perform. Management of server is an important issue for running the project activities. There was no server of BARD to record the data of this project. For this, a contract was signed with a non-government organization following government purchase procedure. When BARD gets a permanent server of its own, the data will be transferred to the server of BARD. Following the instruction of DG, BARD, communication was done with the Executive Director of Bangladesh Computer Council so that BARD could use the national web portal with the purpose of this project. At present, a monthly rent of TK 10000 was given to the non-government organization to use their server. As UP will have to use the web portal to provide services to the people, decentralization of security management of the hoodmold profile information needs to be considered.

Achievement of the Project

- A complete software was made through this project. After implementing this project in two Unions during 2021-22 FY, the project will be handed over to the government. BARD can use this software to conduct baseline survey in its other projects.
- Database of 5600 households in the Bijoypur Union was completed. As a result, actual household number was recorded through the data collection of this project.

Lesson learnt from the project:

- Union household profile is significant both for UP and the common villagers. UP can provide services smoothly using this household profile. Government offices at district, upazila and others can easily establish linkage with this household profile.
- The common villagers seem reluctant to provide data. Sometimes they also feel fear to provide data. Meetings with the villagers should be arranged regularly to brief them about the project.
- Before starting data collection, meetings with the villagers to address the activities of the project could make the data collection process more accurate.
- The role of local representatives is very important in this regard. They could be involved in this process. Provision of honorarium could be kept in the budget for them. As this is not a part of their regular job, they could be motivated to provide support in this regard.
- The members of UP seems reluctant as they do not have much knowledge on integration of ICT in the activities of UP. Training programme can be arranged for them.
- The benefits of involving the local youths in data collection is more. The local young youths can be involved in this process as they are familiar with the common villagers.
- Regular up gradation of the software should be ensured. For this, a provision should be kept in the budget. Devices used for data collection should be upgraded. Moreover, a provision should be kept in the budget to repair the devices used for data collection.
- MoU should be made with the Ministry of Information and Computer Council so that BARD could use the national server to record the data of the project. BARD is a national pioneer institute in the field of rural development. Therefore, BARD should be given the opportunity to use the national servers to record household information of the rural people so that service can be provided smoothly to the rural people.

Plan for FY 2021-2022

- Household level (8800 households) data collection in the Barapara Union will be conducted with the aim of making household profile.
- Household profile of the Bijaypur union will be integrated with the UP web portal as provided by district administration so that the rural people can access services easily.
- Training for the members of UP will be organized and ward meeting with the villagers will be held with the aim of making the data collection smooth.
- A software for easy accounts management will be made so that Bijaypur UP could use this software for better performance.

Creating Employment Opportunities and Entrepreneurship for Orphan and Vulnerable Qawmi Madrasa Students at Home and Abroad through Vocational and Skills Development Training

PD: Abdullah Al Hussain; APD: Kamrul Hasan

Background

Qawmi madrasas were evolved in the Indian subcontinent more than 150 years ago by the conservative part of the Muslim community as a rejection to the British education policy. Instead of taking funding from the state, these madrasas took community support as their basis for survival. Since that time, these madrasas have been providing fundamental Islamic religious education without accepting any external intervention in their curricula. Even after more than 70 years of the end of colonial rule and many subsequent historical upheavals, the madrasas are still maintaining almost the same conservativeness with the government. Even today, the madrasas solely rely on people's donations. Studies say that there are at least 1.4 million children in about 15,000 Qawmi madrasas in Bangladesh. Studies also say that the madrasas have a concentration of children from very poor households, including orphans and vulnerable children, who cannot afford education in the mainstream secular institutes. Although the children in Qawmi madrasas are the most deserving, historically, they have remained excluded from almost all state-provided facilities meant for children. For instance, almost all the child-focused social protection schemes exclude children in Qawmi madrasas by design. Most of them, e.g., school education stipends, target children through institutional arrangements. Registration of the institute with any government department and an approved curriculum are essential criteria for inclusion in such programmes. Since the Qawmi madrasas are not registered with any such authorities, the government department providing supports to children (e.g., Department of Social Services, Department of Primary/Secondary Education), cannot include them under their programmes. Madrasas also appear to be conservative about receiving anything from the government. They think receiving anything from the government will bring them under unwanted control/influence, hampering their primary objective of Islamic religious education.

The curricula in the Qawmi madrasas are not approved by the government, and hence their diplomas/certificates are not recognized elsewhere in the country, except in the Qawmi madrasas themselves. However, very recently, the government of Bangladesh has agreed to

recognize the highest degree of Qawmi madrasas as equivalent to masters in Arabic or Islamic Studies from a university (The Daily Star 2018a). Although Qawmi madrasas are very rigid about modification/updating of curricula, most madrasas are including general subjects such as Bengali and English language and literature, general mathematics etc. in their curricula.

In addition to education, Qawmi Madrasa provides the same food and similar accommodation to all the students and teachers. The orphan and vulnerable children get these free of cost. Books and treatment are also provided based on their needs. Sometimes they also get clothing free of cost.

Qawmi madrasas in Bangladesh have been playing a vital role in providing basic necessities to a large number of children, especially the poor and vulnerable children such as orphans. Therefore, in Bangladesh Qawmi madrasas are almost synonymous with orphanages. There is no scope of undermining this community support for the children. However, the future of the children in Qawmi madrasas should also be a concern of the state. Since Qawmi madrasa students know exclusively in one area (religion), the job market for Qawmi madrasa students/graduates is very limited. They are not likely to get a job in the government or any formal sector. They need to choose a living within the same arena. The most common jobs for Qawmi madrasa students are teaching in Qawmi madrasa, Imam (who leads the prayers) or muezzin (who summons the prayer calling five times) in mosques etc. Most of the available jobs for them are very low paid. The graduates again need to rely on the community, and it is hard for them to break this cycle of dependency and poverty.

In 2017 the government published a gazette recognizing the highest degree of Qawmi madrasas (Takmil or Dawra-e-Hadith) equivalent to master's degrees obtained from any public university in Bangladesh on Arabic or Islamic Studies (The Daily Star 2018a). Following the recognition of the highest degree of Qawmi madrasas, it is now a very relevant debate whether the other certificates, for instance, primary, secondary and tertiary, of Qawmi madrasas will remain unrecognized. Recognition of the highest degree without any reform in the curricula logically recognizes the previous degrees. If so, then for the sake of debate, the Qawmi madrasa education, as it is today, is part of the education policy. Therefore, special initiative should be taken for the Qawmi madrasas, particularly for the orphan and vulnerable children studying in Qawmi madrasas. The poor children in Qawmi madrasas should be given state benefits without any condition. If they are included under the umbrella of the state in

any form, a feeling of belongingness could be created in them. This sense of belongingness may decrease their conservativeness towards the state. At the same time, this huge unproductive population can be turned into productive assets.

Project Area

The Action Research (experimental project) is being implemented with selected students/graduates/dropouts from participating Qawmi madrasas in two sub-districts (Adarsha Sadar and Sadar South Upazila) of Comilla District.

Project Cost

The total budget of the experimental project for three fiscal years was estimated at four million Taka. In the initial year (2019-2020) the allocation was Taka one million. However, due to the COVID-19 pandemic situation and the closure of the education and training institutes, all the activities were postponed. In the prevailing COVID-19 situation, the project was allocated Taka 5,00,000.00 (Five Lacs) only in 2020-2021. In 2021-2022 this project has received Taka 1.5 million to undertake its activities.

Objectives of the Project

The objective of the project is to create employment opportunities and entrepreneurship for Qawmi madrasa students/graduates/dropouts through providing vocational and skills development training.

Progress of the Project during 2020-2021

The faculty members of BARD conducted research with some of the Qawmi madrasas of Cumilla district in 2018. Initially, they had series of discussions with the teachers of madrasas and the leaders of the organization of Qawmi madrasas. As the Qawmi madrasas are rigid about bringing any change in their curricula, it is not possible to impose anything into their pedagogy. Qawmi madrasas cannot be uprooted. They have been surviving with the same curricula and same modality for centuries. However, due to the backwardness of their education, they have remained unskilled. BARD thought about an alternative means—making themselves skilled with technical and vocational training. Although BARD launched this action research project in 2019, no real progress was possible until the last quarter of 2020-2021. The government declared a complete shutdown of all education institutes, including Qawmi madrasas, since 17 March 2020 due to the COVID-19 pandemic. As a result, no progress was

possible to make in 2019-2020. Finally, in June 2021, the project's main activities began with organizing a two-week training programme on Basic Computer and ICT for Qawmi madrasa students and teachers. Although there were only 30 participants from five madrasas, the impact of this programme was impressive.

Project-related Training Activities during 2020-2021

As part of the project's training activity, a two-week-long training programme on Basic Computer Applications and ICT for a group of 30 Qawmi Madrasa students and teachers took place at BARD from 5 to 17 June 2021. This is the first academic initiative to provide training to the students of Qawmi madrasas. The participants were 15-25 years old underprivileged students and one teacher from each of the madrasas. The participants got preliminary knowledge about Computers and ICT. They also learned about some widely used software practically. Besides, the training included the internet, use of social media, safe internet, and cybersecurity. Most of the participants had never or hardly used a computer before. However, they learned things very fast, which impressed the trainers of the Academy. The Madrasas that participated in the programme were given a computer and a printer each, courtesy of Facebook-based aid organization "Shongjog- Connecting People" so that the trainees could practice and teach others what they have learned. BARD will monitor this under the project.

Lesson Learnt from the Project

After two years of rigorous work with the students, madrasa teachers, and leaders of Qawmi madrasas, we have made them realize that they can serve the state, society, and themselves better if they equip themselves with particular skills. We have made them understand that learning how to use a computer is nothing contradictory to religion. To the end of the government, if the 1.5 million students can be provided with various trade-based training, they will turn into human resources and find employment outside mosques and madrasas.

The performance of the students was excellent. Those who never touched a computer mouse ended up typing in both hands in MS Word (both English and Bengali), making mark sheets in MS Excel, writing and sending emails, and making PowerPoint presentations. We all were surprised at their learning capabilities in two weeks.

Many of the national dailies published news on this. There was news on TVs. Some celebrity journalists also wrote on this initiative. They have urged to spread this initiative all over the country. Madrasas are also contacting us to participate in the next batch. Many believe this

might bring a revolutionary change in this conservative stream of madrasa education without hampering their curricula. After further experimentation with the approaches and modalities, we are also considering placing this concept to the government for more comprehensive implementation.

BARD has come up with some very significant lessons so far. They have been mentioned very briefly:

- An academic approach is more appropriate than an administrative approach in dealing with a conservative group like Qawmi madrasas. Many past initiatives (that mainly dealt with their curricula) were not adequately successful with this group. However, BARD's approach in bringing them to a government training institute has been successful.
- The Qawmi madrasa students are excellent learners, particularly in training. As assessed by the trainers of BARD, they are more serious, punctual, and attentive. Their training performance was better compared to trainees in general.
- Qawmi madrasas have a huge demand for skills development training. They could be provided with other vocational training in collaboration with TVET institutes.
- In the context of Bangladesh, people's attitude towards Qawmi madrasa students is very positive. Thousands of newspaper readers, TV audience, and social media users appreciated this initiative, and they urged to expand such initiatives all over the country.
- Following the news on TV, many renowned madrasas communicated with BARD, expressing their interest in participating in similar BARD training. It is an important message for the concerned authorities of the government on the demand of the Qawmi madrasas and how to deal with them for inclusion.

Problems Encountered during Project Implementation

- Training courses other than the Basic Computer and ICT could not be arranged because the training institutes (i.e., TTC) have remained closed due to the COVID-19 situation.

Plan for FY 2021-2022

The main plans of activities for 2021-2022 are as follows:

Activities	Timeline
Organizing discussions with the madrasas and vocational training institutes	August-December 2021
Organizing a workshop with the various stakeholders on the future activities of the project at BARD	September 2021
Signing of MoU with external training institutes	November 2020
Vocational and skills development training programmes at BARD and external institutes	September 2021-June 2022
Organizing a seminar with BEFAQ, Ministry of Education, and other related organizations and individuals in Dhaka	January 2022

Mushroom Development and Cultivation Centre

PD: Reaz Mahmud; APD: Babu Hossain

Background

BARD has been working to develop the socio-economic condition and livelihoods for rural people of the country by involving them into various types of income generating activities since its inception. In Bangladesh every year 1% of cultivable land is decreasing and that threaten our agricultural production. Therefore, we need to think about alternative way to increase the agricultural production as well as to meet protein and minerals of the poor and vulnerable people. In this regard, mushroom is a kind of crop which can be cultivated without any agricultural land and it has very high nutritive as well as economic value. Recently BARD has started “Mushroom Development and Cultivation Centre” in its campus emphasizing on 1, 2 and 8 goals of Sustainable Development Goals (SDG) with the following objectives;

1. Producing mushroom seeds (Spwan) using tissue culture and preservation;
2. Produce commercial spawn from mother culture;
3. Distributing mushroom seeds among the farmers;
4. Orientation training courses for the farmers to produce mushroom as well as to create entrepreneur; and
5. Ensure profitable and right selling of produced mushroom

Project Area: BARD Campus

Project Period: July 2020- June 2021

Project Budget: Tk. 5 Lakhs

Project Cost: 2,32,597.00 Taka

Progress of the Project during 2020-2021

A mushroom development and cultivation center has been set up at BARD Campus to test the feasibility of mushroom cultivation where mushroom and mushroom spawn are being produced very successfully. About 4,000 mushroom spawn is being cultivated in 12 scaffoldings at the center. In addition, necessary preparations are being made for tissue culture (master mother) at the “Mushroom Tissue Culture Lab” located in the Division of Agriculture and Environment and a 03-room mushroom cultivation center inside the Agricultural Research and Exhibition Complex funded by the ongoing Lalmai-Mainamati

project in BARD. A shed has been constructed where activities will start from the current financial year 2021-2022. Mushroom production will be continued through the purchase of materials and materials required for mushroom cultivation and its spawn (mother and commercial) production. Moreover, the specific progress of the practical research activities titled "Mushroom Development and Cultivation Center" is as follows:

1. One varieties (White Oyster) have been successfully cultivated. About 10,000 commercial spawns of mushroom have been produced.
2. A total of 148 kg of mushrooms have been produced and sold in BARD cafeteria, inside and outside the BARD campus.
3. 90 beneficiaries of Lalmai-Mainamati project have been given practical training on mushroom cultivation and
4. 6,200 commercial spawns of mushroom have been distributed among the beneficiaries of the "Lalmai-Mainamati Project" and "Livelihood Improvement of Char Lands People' through Adaptation Practices" Action research project to create entrepreneurship among the beneficiaries.

Livelihood Improvement of Char Lands' People through Climate Change Adaptation Practices

PD: Md. Reaz Mahmud; APD: Md. Abdullah Al Mamun

Background

Bangladesh is globally recognized as one of the most vulnerable countries according to the impacts of global warming and climate change. This is due to its unique geographic location, the dominance of floodplains and low elevation from the sea, high population density, poverty, overwhelming dependence on nature, and its resources and services. The country has a history of extreme climatic events claiming millions of lives and destroying past development gains. The people and social systems have knowledge and experience of coping with their effects to some degree and extent. Variability in rainfall patterns, combined with increased snow melt from the Himalayas and rising temperatures are resulting in crop damage and failure, preventing farmers and those dependent on meaningful earning opportunities.

Bangladesh is an agriculture-dependent country and about sixty-two percent people of it involve in agriculture directly and indirectly. But climate change appears as a big challenge in the agricultural sector. The agricultural production system in the char lands of Bangladesh is characterized by rainfed cultivation, low nutrient levels in the soil, the raising of traditional crop varieties with conventional management practices, poor access to agricultural technologies and services, poor linkage to markets, low cropping system intensification and diversification. Besides, the char lands' agriculture system is highly prone to climatic stresses (flood, river erosion, high temperature, erratic rainfall, moisture stress and tropical cyclone) and the local farmers suffer every year. The changing climate will amplify these problems in the future and make char lands livelihoods precarious. The adoption and adaptation of climate-smart agriculture options (for example different crops or varieties, cropping systems and management practices) can significantly reduce the negative effects and build resilience to changing environmental conditions.

Action Research Project Area:

- a) Puraton Charchashi Village, Guagachia Union, Gajaria Upazila, Munshiganj.
- b) Natun Hasnabad Village, North Daudkandi Union, Daudkandi Upazila, Cumilla.

Action Research Project Cost: (BDT 10,98,750.00) (Budget: BDT 14,00,000.00)

Objectives of the Action Research Project:

The general objective of the project is to improve the livelihood status of char lands people through adaptive agricultural practices and off-farm activities. The specific objectives of the project are given below.

- a) to build awareness regarding climate change impact and disaster risk reduction of char lands' people;
- b) to introduce climate change adaptive agricultural practices;
- c) to create entrepreneur for the youths and vulnerable women to reduce unemployment; and
- d) to provide skill development and IGA trainings, and necessary on-farm and off-farm materials for the improvement of economic condition.

Progress of the Action Research Project during July 2020 to June 2021

S.N.	Activities	Components/Other Activities	Progress during July 2020 to June 2021
1.	Adaptive trial	Tree Plantation (Thunder & storm registrant, medicinal and fruits saplings)	• Tree saplings (900)
		Cage Fish Farming	• Mono-Sex Telapia Fish Fingerlings (800) • Fish Feed (160 kg)
		Different Vegetables Seeds	• Maize seeds (20 kg) • Different seasonal vegetables seeds (15.3 kg)
		Ducklings	• Ducklings (2000)
2.	Income-Generating Activities	Mushroom Spawn	• Mushroom Spawn (100)
		Pigeons	• Pigeons (80)
		Sewing Machine	• Sewing Machine (10)
3.	Training (Awareness building)	IGAs, Functions of Cooperative, Adaptation & Skill Development	• 6 Batches (250 Participants)
4.	Administrative Activities	Pandemic Awareness	• Health related goods
		PIC Meeting	• PIC Meeting (1)
		Brochure	• 3000 pcs
		Field School	• Conducting Field School (10)
		Recruitment	• Field Worker (2 Persons)

Action Research Project Related Training Activities during 2020-2021:

6 Batches and 250 Participants (Awareness Building IGAs, Functions of Cooperative, Adaptation & Skill Development related issues)

Lesson Learnt from the Action Research Project:

- Identified livelihood vulnerability of Char land people by exploring their present livelihood status.
- Difficulties of trust between village level beneficiaries and government officials as some non-governmental organizations cheated them through investing money
- Degradation of the mentality of the youth during pandemic situation
- Vulnerability of widow and vulnerable women in the shoal society
- Alternative livelihood options to improve shoal inhabitants economic condition during pandemic situation
- Increase oxygen concentration in the air as well as reduce CO₂ release through tree sapling plantation
- Incensement of employment opportunity providing sewing machine, mushroom Spawn, and ducklings
- Effectiveness of pigeon rearing of youth to build educational career and character during pandemic situation as some of them are addicted in drugs and mobile device
- Increase awareness regarding disaster risk and vulnerability, mitigation measures of environment, skill development, IGA, functions of cooperative and effects of climate change on shoal livelihoods

Problems Encountered during Action Research Project Implementation:

- Pandemic situation;
- Environment;
- Trust
- Communication

Management and Extension of Dairy, Poultry and Goat Demonstration Farm

PD: Dr. Bimal Chandra Karmakar

Background

BARD is reputed organization for traditionally involvement in creating new ideas in the field of rural development of Bangladesh. In case of livestock development in Bangladesh it played an important role for adopting new technologies since its inception in 1959. Beef fattening technology, crossbreeding technology, modern slaughter house practices, creamery set up for milk and milk product etc. were some of the important technologies practiced by BARD through experimental projects in early 60's.

Since livestock supplies huge nutrients for the people and it is also a major source of income and employment generation it became an integral component of the complex farming system in Bangladesh. According to DLS 2020 the contribution of livestock sector to national GDP is 1.43% which is 46673 crores in BDT. This sector provides full time employment for 20% of the total population and part-time employment for another 50%. The poultry meat alone contributes a substantial 37% of the total meat production in Bangladesh whereas total 65% animal protein comes from livestock sector (DLS 2019). Livestock are also important sources of farmers' cash income, and in the national economy livestock bring a significant portion of foreign exchange earnings through the export of hides. Bangladesh has one of the highest densities of livestock in the world, 145 large ruminants/km² compared with 90 for India, 30 for Ethiopia and 20 for Brazil. Despite the highest density of cattle population in Bangladesh the productivity of all the species is far below the world average, Milk yield per head per lactation is 206kg against the Asia average of 1220kg, India-1014kg and Pakistan 1179kg. Presently the production of animal protein has maintained an upward-trend where per capita availability of animal protein presently stands at around 126 gm meat/day ,175 ml milk/day and 103 eggs/year against the recommended intakes of 120 gm meat/day, 250ml milk/day and 104 eggs/year (DLS 2019).

Realizing the importance of livestock sector for rural development some initiatives were taken for livestock development at BARD in recent year. A dairy demonstration farm was established in 2015 at BARD campus aiming at extending the livestock related activities of BARD. It was established by the joint venture sponsorship of KOICA Bangladesh and BARD. At present training for the rural farmers, entrepreneurs and project beneficiaries are arranged regularly through this demonstration farm.

Objectives of the Project

The General objective of the Project is to demonstrate the ideal method of technology based dairy, poultry and goat farming and to disseminate the ideas among the rural farmers and beneficiaries of different projects.

The Specific objectives are:

- I. to demonstrate the scientific method and basic way of dairy, poultry and goat farming to the farmers, beneficiaries, students and so on;
- II. to extend the horizon of research, training and project works of BARD on different aspects of dairy, poultry and goat development;
- III. to adopt and generate different technologies.

Location of the Farm

The farm is located at the area of BARD Agriculture Research and Demonstration Complex

Budget: 38 lakhs (2020-2021)

Major Activities

At the very outset of its establishment, there was a dairy unit having 4 milking cows with their calves only. The cows were collected from Sahajadpur upazila of Sirajgonj district with the help of local livestock office. After 3 years of establishment of dairy unit, a poultry unit and also a goat rearing unit were added with it. Now it become a farm of three main units like Dairy unit, Poultry Unit and Goat rearing unit.

A. Dairy Unit

A total of twenty animals are present in the Dairy farm. Milking cow, pregnant cow, heifer and bull are present here. The dairy unit comprises many small sub-units like:

1. Shed management

There are three sheds in the dairy unit. One shed for the milking and pregnant cow, one for heifer and one for the bull. All the sheds are monitor type. The benefit of the shed is low temperature at animal level. It keeps animal free from heat stress.

2. Biosecurity practices

This farm follows all the steps of biosecurity practices of the dairy farm. There was boundary fence around the farm with an entry gate. In the entrance there is a small pocket gate for the visitors, trainees and professionals. Besides, in the farm entrance there is a footbath for all the visitors. Generally disinfectants like potassium permanganate is mixed with water and placed in the foot bath. It is obligatory to use footbath before getting entry into the farm. In a certain interval some disinfectants are also used in the shed for reducing the germ load.

3. Biogas plant bio-slurry and vermi-compost

The farm has a biogas plant in its premises. It is run by the cow dung of the farm. The excess cow dung is also directly used to prepare vermicompost. Slurry of biogas plant, and sometimes cow dung is used as organic fertilizer in the fodder land and in fodder production.

4. Irrigation Management through Sprinkler irrigation

Following establishment of the dairy farm, grass lands were irrigated by applying drain water irrigation system. As drain water system cause huge water loss, a technology based sprinkler irrigation system has been installed.

5. Silage making

The farm practices silage making for demonstrating the trainees in a traditional way, keeping the grass underground for several days. This practice help farmer's use silage when fodder is not available.

6. Grazing land

For easy exercise and getting sunlight for vitamin-D production a grazing land was prepared for the animal. The animals made open to graze and move there regularly.

7. Fodder production

Three different types of fodder is cultivated in the farm. Napier, Pakchong and German grass is produced regularly. But, Maize is cultivated occasionally to get more and diversified fodder.

8. Feeding Urea Molasses Straw (UMS)

During training course practically Feeding Urea Molasses Straw (UMS) is prepared at the farm premises. After preparing UMS is fed to the animal.

B. Goat Farm Unit

The farm has a total of 25 goats in its shed. Initially 4 doe and 2 buck of black Bengal goat were collected from the goat development farm of sylhet. Goats are reared in slat rearing system. Regular PPR vaccine is applied to the goat. It was observed that mortality of goat is very low if regular PPR vaccine is applied and goats are kept out of getting cold.

C. Poultry Unit

The central store room of 1960's has been modified to poultry rearing unit. After modification chicken were reared in it. But due to heat stress and high disease incidence chicken rearing stopped and then duck rearing started in the same shed. But, for duck rearing a small water reservoir were made so that duck can easily swim and exercise. It is observed that ducks are more suitable than chicken rearing in harsh condition in the farm premises. It was also found that a small reservoir is enough to rear duck in a hilly area of Bangladesh if the ducks are reared in semi intensive rearing system.

Technology Adoption

Biogas plant, sprinkler irrigation, body weight measurement through digital weighing scale, use of milking machine for milking, grass chopper machine for fodder cutting and silage making etc are some of the adopted technologies in the demonstration farm.

It Became a Centre of Practical Training on Livestock

Within 6 years of establishment of the farm it becomes a center of livestock training. Farmers, beneficiaries of projects, visitors, university students, and entrepreneurs get interest after visiting the farm and its activities. Training on Dairy cattle production, Beef fattening, Poultry rearing and Goat farming were regularly arranged for the beneficiaries of Lalmai-Moynamati project, Amar Bari Amar Khamar project and project personnels of livestock and Dairy Development Project (LDDP). Moreover, researchers, university scholars, and participants of BARD training programme are the clientele. In 2019-2020 financial years about 800 stakeholders received practical training from Dairy, Poultry and goat farm. In 2020-21 a total of 400 livestock service providers received hands on training from this farm. Moreover, students from different universities, beneficiaries from different projects, national and international delegates visit the farm. The project management team regularly learns from this farm and use the learning in future planning and implementation. Moreover, learning from this farm were also used in the training session.

Achievements against Target in 2020-2021

Sl. No.	Target (2020-2021)	Achievements	Comments
1	Extension of dairy farm size	10 heifers were purchased	One bull was sold and two cow have been culled and sold
2	Duck rearing in hilly area	A small water reservoir (20×20) sqft were made in the farm premises for duck rearing	Duck rearing in the hilly area is in practice
3	Expansion of goat demonstration farm	There are 27 Black Bengal goat in the farm. A new shed has been installed for the goat	Sheds are of slat type
4	Preparation of pasture land for cow and goat	A pasture land has been made in the fellow land and some grass have been cultivated	Every morning cow and goats exercise in the pasture and take grass
5	Training for the farmers and entrepreneurs	About 1000 farmers, project beneficiaries and livestock service providers got training	Training were given to the beneficiaries of Lalmai Mainamoti project, Amar bari amar Khamar project and LSP of LDD project
6	Budget BDT 37.33lac	BDT. 33.30 (89%)	-

Plan for FY-2021-2022

BARD will also take following initiatives to increase the horizon of the project:

- Steps will be taken to increase the number of dairy cow.
- More Training courses for the dairy and goat farmers, entrepreneurs will be arranged.
- Black Bengal Goat unit can be extended by increasing the goat number.

Lessons Learnt

Routine vaccination against infectious disease like foot and Mouth Disease (FMD) in cattle is mandatorily used in the dairy farm to keep the farm nice to run.

Biosecurity practices should be maintained strictly to reduce germ load. Sanitary measures of the workers can keep the dairy cow free from mastitis and other contagious disease.

If the animal can move easily under the sunlight, it helps get vitamin D and the reproductive health remain sound. It gives benefit to maintain hoof and bone health.

Cattle is herbivorous animal. So they should feed enough fodder. It keeps the digestive system healthy. Excess concentrate make the animal bulky, creates digestive problems and reduces reproductive performance.

Contribution in building resilience against COVID-19 pandemic

Animal protein is very suitable for human health. Livestock farming can provide animal protein from milk meat and egg. Milk, meat and egg can boost up immunity. Ingestion of these animal product and bi-product can help prevent the infection of COVID-19 pandemic. During COVID-19 pandemic outbreak, 400 livestock service providers got training from BARD Dairy, Poultry and Goat Demonstration Farm. After getting training the participants worked in their area for increasing production of milk meat and egg. This is how this farm has direct and indirect effect in building resilience against COVID-19 pandemic.

Conclusion

Although BARD Dairy, Poultry and Goat Demonstration Farm started its journey with 4 milking cow, now it has become an integrated livestock farm which contains dairy, poultry and goat in its premises. Not only increasing the size, but the farm is concentrating on expanding its activities on technology adoption and technology transfer. Hope in near future this farm will be able to serve the rural people in wider scale.

BARD Germplasm Center (Plant Museum)

PD: Kamrul Hasan; DPD: Saleh Ahmed

Background

Bangladesh is an abode of 5,000 plant species and is the secondary centre of origin of many plant species, including a large number of cultivated plants. In the past, Bangladesh did not accord enough emphasis on conservation of its plant genetic wealth. “The access to abundant plant genetic diversity will be the key to human survival. If diversity goes, we will soon follow” - this is more applicable to Bangladesh where genetic erosion is occurring rather fast and conservation efforts are weak. Three institutions in Bangladesh maintain genebanks: Bangladesh Rice Research Institute (BRRI); Bangladesh Jute Research Institute (BJRI); and Bangladesh Agricultural Research Institute (BARI). Activities of these genebanks are confined to crop plants, these institutes are mandated to deal with. There is a large number of plant species that are ‘uncared for’ and are subject to extinction due to rapid population increase, urbanization, deforestation and various ‘development’ projects. We have already lost some of our valuable ‘landraces’. Already 45 plant species of the country are on the verge of extinction. There is only about 5 per cent forest cover left. Ecological risks will multiply if we cannot improve forest covers; foods from plants will be scarce if we cannot develop improved varieties using genetic diversity. All these warrant conservation and utilization of our plant genetic resources (PGR) before they become extinct. Even the activities of the existing, narrow focused genebanks suffer due to a host of problems. It is time that an integrated approach be taken to conserve the nation’s wealth of PGR - field crops, horticultural crops (including fruit trees), forest species, forage crops, medicinal and floricultural plants. An integrated approach for PGR conservation is an urgent need for developing improved varieties of plants to meet the increased demand in future. Once the project site was full of bamboo bushes and unproductive trees. This project was taken to make plant museum cum germplasm center especially for fruit and medicinal plants. The project started during 2019-20 financial year under the revenue budget of BARD.

Project Area: BARD Campus

Project Cost: 6 lakhs (2020-21)

Objectives of the Project:

- a. To Produce Quality saplings and distribute among the small rural entrepreneurs.
- b. To carry out practical sessions on fruit cultivation and management.

Progress of the Project during 2020-2021

SI No.	Activities	Targets in 2020-2021	Achievement during 2020-2021	
			Physical	Financial
1	Uprooting the bamboo bushes beside the boundary wall.	Uprooting the bamboo bushes beside the boundary wall	100%	100%
2	Uprooting the unproductive trees.	Uprooting the unproductive trees.	100%	100%
3	Establish drains and develop land.	Drains have been set up leveling the plot and developing the land.	100%	100%
4	Introduction of Irrigation System	Sprinkler Irrigation System has been established	100%	100%

Lesson learnt from the project:**Plan for FY 2021-2022:**

- a. Plantation of different high yielding varieties of fruit trees will be done
- b. Boundary wall will be established

BARD Demonstration Fish Farm

PD: Anas Al Islam; DPD: Md. Faruk Hossain

Background

Bangladesh is one of the world's leading fish producing countries with a total production of 43.00 lakh MT, where aquaculture contributes 56.44 percent to total production. In Bangladesh, fish plays a central role in dietary patterns, livelihoods and culture. Almost all the SDGs, and many associated targets are relevant to aquaculture development. As well, Bangladesh government has multiple initiatives to boost up the aquaculture growth of the country.

BARD has been recognized as a fostering ground of green revolution in Bangladesh for its activities in the early 70's. As an academy, BARD always comes out with new models and technologies for rural development, provides training on the agriculture technologies along with real life demonstration. Consequently, establishment of a demonstration fish farm at BARD campus through this project has intended to facilitate the scientific fish farming for the rural people in Cumilla. This project will not only solve the repugnancy between emerging popularity of pond aquaculture and over growing demand of quality fish seed, but also this unit will be used as a demonstration unit for standard fish farming. Rural youth can easily adopt this model to make a way out of the curse of unemployment.

Objectives of the project:

The general objective of the project was to demonstrate an ideal demonstration fish farm for producing quality fish seed and providing better understanding about fish culture management in training sessions.

Specific objectives of the project are-

- i) to demonstrate advanced technologies of aquaculture in the farm level;
- ii) to meet up the demand of quality fish seed/fingerlings in surrounding areas of BARD campus; and
- iii) to conduct practical sessions of different training courses on scientific fish culture.

Project Cost: BDT. 19.00 (lakhs)

Project area: BARD campus

Achievements against Target in 2020-21:

Sl. No.	Targets (2020-21)	Achievements (2020-21)	Comments
1	Establishment of Biofloc Production Unit	1500 sq feet shade was built in Fish Farm compound for experimenting biofloc fish culture. Three fish tanks of 10000 liters capacity each were installed.	About 100 kg fish were grown in the tank. Though fish of one tank died suddenly without any infection. Some modifications of the tank design were done.
2	Production of 500 kg carp fingerlings	Around 700 kg of carp fingerlings were produced at a rate of 3.5 ton per hectre per year. (Achievement: 140%)	High productivity can be obtained due to abundance of phytoplankton and zooplankton in the pond ecology.
3	Stocking of fish fry and rearing upto fingerling stage.	Around 35,000 carp (rohu, catla, mrigel) fry has been stocked in three ponds and feeding has been continued.	It is expected that, there will be a production of 300 kg fingerlings at the end of this production year (April 2022).
4	Stocking of high valued fish fingerlings in the grow-out pond.	About 10,000 gulsha (<i>Mystus bleekeri</i>) fingerlings were released in one pond to culture up to grow-out stage.	Gulsha and Carp polyculture system were experimented in this component.
5	Establishment of Aquaponics Production unit and other aquaculture technology	Aquaponics unit was established beside the biofloc unit in a polyhouse. Plants like- rock melon, lettuce and vegetables are growing there. Besides, advanced aquaculture technologies like aerator for oxygenation has also been continued to the farm site.	Aquaponics can be a profitable side business along with tank fish culture. It can contribute some extra money to the farmers by selling vegetables grown from the waste tank water.
6	Conduct practical session of training courses	Around 270 participants from 7 different fish culture training courses visited the fish farm and received hands on training on fish culture management.	High officials, delegates from different institutions and other visitors visited BARD Demonstration Fish Farm very often.

Lessons Learnt from the Project:

- i. Fish nursery is very simple and low investment business with a higher profit margin.
- ii. Availability of natural food in the culture ponds reduce the supplementary feed cost and also increase the growth of species cultured.

- iii. Biofloc fish culture in Bangladesh is not well researched and there are some scarcities of essential products in the market. Though it has a great potential, but still a long way to go with research and development to standardize the process for the farmers.
- iv. Proper liming and periodic water supply to the ponds reduce the disease occurrence of fish in the pond system.
- v. Aquaponics could be the best example of integrated fish-plant culture in closed environment and if planned properly it will be profitable.

Plan for FY 2021-22:

The experiments of biofloc fish culture and aquaponics will be going on with some modifications based on the lessons from previous year. Fingerling production will also be continued. In addition, high valued fish species will be brought into culture in polyculture system in the ponds to testify the profitability of this culture pattern.

Demonstration of Organic Year-Round Vegetable Production Projects in BARD Campus

PD: Babu Hossain

Background

In Bangladesh, the average per capita daily vegetable intake is 56g per day, whereas the recommended intake is 250g/day. Vegetables not only minimize the malnutrition but also maximize the financial returns. Vegetables generate cash to the growers. It helps to reduce dependence on rice. According to modern science, eating excess rice, which we do in general, is not good from the health point of view. Thus, to fulfill farmers economic demand they are getting more involved in vegetable cultivation along with rice cultivation. BARD has been recognized as a fostering ground of green revolution in Bangladesh for its activities in the early 70's. As an academy, BARD always comes out with new models and technologies for rural development, provides training on the agriculture technologies along with real life demonstration. Consequently, development of vegetables production at BARD campus through this project is intended to facilitate the safety vegetable production for the local people in Cumilla. Vegetable demonstration farm area administrated at BARD campus on regular basis after it situated in 1959.

Objectives of the Project:

By reducing the use of chemical fertilizers and increasing the use of organic manure (earthworm manure), year round cultivation of various types of non-toxic vegetables will be able to meet the vital nutritional needs of the body and be aware of the harmful effects of overuse of chemical fertilizer. Recently BARD has started "Demonstration of Year-Round Vegetable Production Project" in its campus with the following objectives;

- i) To produce different types of vegetables throughout the year in a modern way;
- ii) To reduce the use of chemical fertilizers and produce non-toxic vegetables through organic fertilizers (earthworm fertilizers); and
- iii) to train the beneficiaries of different training courses about vegetables cultivation.

Progress of the Project during 2020-2021

A variety of vegetables are being produced throughout the year by cultivating a small area of abandoned land inside the BARD Campus. Besides, the produced vegetables are being sold inside the BARD campus and various goods and materials have been procured for the

convenience of cultivation. Also a hydroponic shed of Agricultural Research and Exhibition Complex has been constructed with the funding of Lalmai-Mainamati project which is in the process of being adapted for vegetable production. In addition, the specific progress of the project is as follows:

- A variety of summer vegetable's such as okra/ladies finger, Indian spinach, water spinach, snake gourd, luffa, wax gourd, bitter gourd, sweet pumpkin, brinjal and chili seedlings and seeds were planted and sown and the produced vegetables were sold inside the BARD Campus.
- A variety of winter vegetable's such as cabbage, cauliflower, tomato, chili, red amaranthus, radish, coriander, indian spinach, bean and broccoli seedlings and seeds were planted and sown and the produced vegetables were sold inside the BARD Campus.
- Beneficiaries of Lalmai-Mainamati Project and My House My Farm Project have been provided practical training on non-toxic vegetable cultivation.

Projects included in the RADP list of 2021-22 as Unapproved Projects

Annexure -19

প্রকল্পের শিরোনাম	:	টেকসই কৃষির জন্য প্রতিবেশ উপযোগী খামারকরণ প্রকল্প
উদ্যোগী মন্ত্রণালয়/বিভাগ	:	স্থানীয় সরকার, পল্লী উন্নয়ন ও সমবায় মন্ত্রণালয় পল্লী উন্নয়ন ও সমবায় বিভাগ।
বাস্তবায়নকারী সংস্থা (সংস্থাসমূহ)	:	বাংলাদেশ পল্লী উন্নয়ন একাডেমী (বার্ড), কুমিল্লা।
পরিকল্পনা কমিশনের সংশ্লিষ্ট বিভাগ	:	কৃষি, পানিসম্পদ ও পল্লী প্রতিষ্ঠান বিভাগ

প্রকল্পের উদ্দেশ্য ও লক্ষ্যমাত্রা (সুবিধাভোগীসহ): প্রকল্পের সাধারণ উদ্দেশ্য হলো- প্রতিবেশ সম্মত খামার প্রযুক্তির সম্প্রসারণ এবং নির্মল পরিবেশ সৃষ্টি ও টেকসই কৃষি উন্নয়নের জন্য এ সকল প্রযুক্তির বিস্তার প্রাতিষ্ঠানিকরণে উপযুক্ত কৌশল গ্রহণ।

প্রকল্পের সুনির্দিষ্ট উদ্দেশ্য সমূহ নিম্নরূপঃ

- (১) প্রতিবেশ/পরিবেশ বান্ধব প্রযুক্তি গ্রহণ ও সম্প্রসারণের মাধ্যমে জৈব ফসলের উৎপাদন বৃদ্ধি করা
- (২) জৈব সার ব্যবহারের মাধ্যমে মাটির গুণাগুণ বৃদ্ধি করা
- (৩) ভূ-গর্ভস্থ ও ভূ-উপরিস্থ পানির ব্যবহার উন্নত করা
- (৪) উন্নত চাষাবাদ পদ্ধতির মাধ্যমে আয় বৃদ্ধি করা
- (৫) কৃষি পণ্যের বাজারজাতকরণ নেটওয়ার্ক উন্নয়নের মাধ্যমে খামারের আয় বাড়ানো।

প্রকল্পের বাস্তবায়নকাল	:	
ক) শুরুর তারিখ	:	জুলাই ২০২১
খ) সমাপ্তির তারিখ	:	জুন ২০২৪

প্রকল্পের প্রাক্কলিত ব্যয় (লক্ষ টাকায়)	:	
মোট	:	৪,৯৬০.০০ লক্ষ
জিওবি	:	৪,৯৬০.০০ লক্ষ

প্রকল্প এলাকা :

বিভাগ	জেলা	উপজেলা/থানা/সিটি কর্পোরেশন/পৌরসভা
১	২	৩
চট্টগ্রাম	কুমিল্লা	লালমাই, নাঙ্গলকোট, লাকসাম, মনোহরগঞ্জ, চান্দিনা, বার্ড ক্যাম্পাস
	নোয়াখালী	নোয়াখালী সদর, সুবর্ণচর, কবির হাট, সেনবাগ
বরিশাল	বরিশাল	গৌরনদী, বাবুগঞ্জ, বাকেরগঞ্জ, আগৈলঝাড়া
	পটুয়াখালী	পটুয়াখালী সদর, মির্জাগঞ্জ, কলাপাড়া, দুমকি
সিলেট	সুনামগঞ্জ	তাহেরপুর, বিশ্বম্ভরপুর, শাল্লা, দিরাই
	হবিগঞ্জ	মাধবপুর, চুনাকুশাট, আজমিরিগঞ্জ, বাহুবল
রংপুর	রংপুর	
খুলনা	যশোর	

প্রকল্পের প্রধান কম্পোনেন্টসমূহ

- (ক) খানা জরীপ ও গ্রাম তথ্য বই প্রণয়ন
- (খ) গ্রাম পর্যায়ে সমিতি/সংগঠন তৈরি
- (গ) জৈব সার (ভার্মিকম্পোস্ট ও ট্রাইকোডার্মা) উৎপাদনের অভিযোজিত ট্রায়াল
- (ঘ) বর্জ্য ব্যবস্থাপনা ইউনিট স্থাপন
- (ঙ) প্রতিবেশ বান্ধব ও পরিবর্তিত জলবায়ু অভিযোজনশীল ফসলের প্রদর্শনী প্লট স্থাপন
- (চ) কৃষি খামারে নবায়নযোগ্য শক্তির অভিযোজনীয় ট্রায়াল ও উন্নত পানি সাশ্রয়ী প্রযুক্তির অভিযোজনীয় ট্রায়াল
- (ছ) এসআরআই প্রযুক্তির অভিযোজনীয় ট্রায়াল
- (জ) পর্যায়ক্রমিক ভেজানো ও শুকানো সেচ (AWD) পদ্ধতির অভিযোজনীয় ট্রায়াল/গবেষণা
- (ঝ) উঁচু বেডে (Raised beds) ধান চাষের অভিযোজন পরীক্ষা
- (ঞ) বায়োলক্ষক পদ্ধতিতে মৎস্য চাষের অভিযোজন পরীক্ষা
- (ট) দক্ষতা উন্নয়ন প্রশিক্ষণ
- (ঠ) পণ্যের প্রচার ও বিপণন ইত্যাদি।

প্রকল্প শিরোনাম	: গ্রামীণ মাইক্রো এন্টারপ্রাইজ উন্নয়নের মাধ্যমে জীবিকা উন্নয়ন
উদ্যোগী মন্ত্রণালয়/বিভাগ	: পল্লী উন্নয়ন ও সমবায় বিভাগ (আর ডি সি ডি) / স্থানীয় সরকার, পল্লী উন্নয়ন ও সমবায় মন্ত্রণালয় (এলজিআরডি ও সমবায়)
বাস্তবায়নকারী সংস্থা (সংস্থাসমূহ)	: বাংলাদেশ পল্লী উন্নয়ন একাডেমি, কোটবাড়ী, কুমিল্লা
পরিকল্পনা কমিশনের সংশ্লিষ্ট বিভাগ	: কৃষি, পানি সম্পদ ও পল্লী প্রতিষ্ঠান বিভাগ
প্রকল্পের উদ্দেশ্য ও লক্ষ্যমাত্রা (সুবিধাভোগীসহ)	: প্রকল্পটির সাধারণ উদ্দেশ্য হচ্ছে ক্ষুদ্র এন্টারপ্রাইজ এর উদ্যোক্তাগণের মানব পুঁজি, সামাজিক মূলধন উন্নয়ন ও উন্নত প্রযুক্তির অভিজ্ঞতা সৃষ্টি করে এর মাধ্যমে আনুষ্ঠানিক আর্থিক প্রতিষ্ঠান ও লাভজনক বাজারে প্রবেশাধিকার নিশ্চিত করা এবং উদ্যোক্তাদের পারিবারিক আয়ে গ্রামীণ মাইক্রো এন্টারপ্রাইজ এর অবদান বৃদ্ধি করা।

প্রকল্প এলাকায় প্রকল্প সময়ে নিম্নলিখিত সুনির্দিষ্ট লক্ষ্যগুলি অর্জন করা হবে:

- প্রকল্প এলাকায় প্রকল্পকালীন সময়ে ৫,৬০০ টি গ্রামীণ মাইক্রো এন্টারপ্রাইজের উদ্যোক্তার কারিগরি ও প্রযুক্তিগত উন্নয়ন ও দক্ষতা বৃদ্ধি করা সম্ভব হবে;
- ৫,৬০০ জন ক্ষুদ্র উদ্যোক্তার ব্যবস্থাপনা এবং বিপণন সক্ষমতা বৃদ্ধি করা যাবে;
- শিক্ষানবিশ কর্মসূচি চালুর মাধ্যমে ৫৬০ জন নতুন উদ্যোক্তা তৈরি করা হবে;
- একই ধরনের ব্যবসার সাথে সম্পৃক্ত ক্ষুদ্র উদ্যোক্তাদের মধ্যে শক্তিশালী নেটওয়ার্ক সৃষ্টি করা হবে;
- বাজারের চাহিদা এবং প্রতিযোগীদের তুলনামূলক সুবিধা-অসুবিধার তথ্যাদি জানার সুযোগ বৃদ্ধি করা হবে;
- আর্থিক প্রতিষ্ঠান থেকে সহনীয় সার্ভিস চার্জে ঋণ প্রাপ্যতা নিশ্চিত করা যাবে;
- বিভিন্ন ধরনের ঝুঁকি যেমন অসুস্থতা, চাকরি হারানো, মৃত্যু বা অন্যান্য বেশকিছু ক্ষুদ্র ঝুঁকি যেগুলো ব্যবসা ও পারিবারিক আয়কে বাধাগ্রস্ত করে সেগুলো প্রতিকারের জন্য উদ্যোক্তাদের ঝুঁকি তহবিল ব্যবস্থাপনার আওতাধীন করা হবে।

প্রকল্পের বাস্তবায়নকাল	:
ক) শুরুর তারিখ	: জুলাই ২০২১
খ) সমাপ্তির তারিখ	: জুন ২০২৪
প্রকল্পের প্রাক্কলিত ব্যয় (লক্ষ টাকায়)	:
মোট	: ৩,৮৬৩.৯৭
জিওবি	: ৩,৮৬৩.৯৭

প্রকল্প এলাকা :

বিভাগ	জেলা	সিটি কর্পোরেশন/পৌরসভা/উপজেলা
১	২	৩
রংপুর	রংপুর	রংপুর সদর
		মিঠাপুকুর
		পীরগাছা
		পীরগঞ্জ
	কুড়িগ্রাম	উলিপুর
		চিলমারী
চট্টগ্রাম	কুমিল্লা	রাজারহাট
		নাঙলকোট
		মনোহরগঞ্জ
		লালমাই
		বরুড়া
ঢাকা	রাজবাড়ী	কালুখালি
	মাদারীপুর	শিবচর

**প্রস্তাবিত প্রকল্প এলাকার জেলা ও উপজেলা পর্যায়ের মানচিত্র পরিশিষ্ট-০১ এ সংযুক্ত করা হলো (পৃষ্ঠা নং-৪২)।

লজিক্যাল ফ্রেমওয়ার্ক

সংক্ষিপ্ত বর্ণনা (NS)*	বহুনিষ্ঠ যাচাই নির্দেশক (OVI)**	যাচাইয়ের মাধ্যম (MOV)***	গুরুত্বপূর্ণ অনুমান (IA)****
লক্ষ্য (Goal) ক্ষুদ্র উদ্যোক্তা এবং বেতনভোগী শ্রমিকদের যথাযথ কর্মসংস্থান সৃষ্টি	মাইক্রো এন্টারপ্রাইজ থেকে পারিবারিক আয় ৩ বছরের মধ্যে ১০ শতাংশ বৃদ্ধি পাবে। মাইক্রো এন্টারপ্রাইজ এর উদ্যোক্তাদের পূর্ণ সময় কর্মসংস্থান ৩ বছরের মধ্যে ৫০ শতাংশ বৃদ্ধি পাবে।	বাংলাদেশে এন্টারপ্রাইজ সার্ভে	
উদ্দেশ্য (Purpose/Outcome) মাইক্রো এন্টারপ্রাইজ এর উন্নতি ও প্রসার নিশ্চিত করা	৫০ শতাংশ মাইক্রো এন্টারপ্রাইজ এর গড় কর্মচারীর সংখ্যা ০৩ জন। ৭০ শতাংশ মাইক্রো এন্টারপ্রাইজ উদ্যোক্তার আয় ২০ শতাংশ বৃদ্ধি পাবে।	ভিত্তি জরীপ, মধ্যমেয়াদি ও বাস্তবায়নোত্তর মূল্যায়ণ	প্রশিক্ষিত কর্মচারীরা একই এন্টারপ্রাইজ এ থাকবে
আউটপুট (Output) ১। ব্যবস্থাপনা সক্ষমতা বৃদ্ধি এবং আনুষ্ঠানিক আর্থিক প্রতিষ্ঠানে প্রবেশাধিকার	৭০ শতাংশ মাইক্রো এন্টারপ্রাইজ এর আনুষ্ঠানিক বা অনানুষ্ঠানিক আর্থিক প্রতিষ্ঠানে প্রবেশাধিকার হবে। ৮০ শতাংশ মাইক্রো এন্টারপ্রাইজের হিসাব বই সংরক্ষণ থাকবে। ৮০ শতাংশ মাইক্রো এন্টারপ্রাইজ উদ্যোক্তারা ব্যবস্থাপনা প্রশিক্ষণ পাবে।	ভিত্তি জরীপ, মধ্যমেয়াদি, বাস্তবায়নোত্তর মূল্যায়ণ এবং বার্ষিক অগ্রগতি প্রতিবেদন	আর্থিক প্রতিষ্ঠানসমূহ সাশ্রয়ী রেটে ঋণ প্রদানের জন্য প্রস্তুত। উদ্যোক্তারা প্রশিক্ষণ থেকে প্রাপ্ত জ্ঞান ব্যবহার করেন।
২। মাইক্রো এন্টারপ্রাইজসমূহ বেশি হারে উৎপাদন করবে।	৫০ শতাংশ মাইক্রো এন্টারপ্রাইজ এর উৎপাদন ২০ শতাংশ বৃদ্ধি পাবে। ৩০ শতাংশ মাইক্রো এন্টারপ্রাইজ আধুনিক ক্যাপিটাল পণ্যগুলি অর্জন করবে। ২০ শতাংশ কর্মচারী প্রযুক্তিগত প্রশিক্ষণ পাবে। ৫০ শতাংশ মাইক্রো এন্টারপ্রাইজ এর অপারেটিং মূলধন ২০ শতাংশ বৃদ্ধি পাবে। ৩০ শতাংশ মাইক্রো এন্টারপ্রাইজ-এর স্থায়ী মূলধন ২০ শতাংশ বৃদ্ধি পাবে।	বেঞ্চ মার্ক সার্ভের সাথে তুলনা হাজিরা শীট বেঞ্চ মার্কের সাথে তুলনা	মাইক্রো উদ্যোক্তারা হিসাবী ঝুঁকি নিতে প্রস্তুত

সংক্ষিপ্ত বর্ণনা (NS)*	বস্তুনিষ্ঠ যাচাই নির্দেশক (OVI)**	যাচাইয়ের মাধ্যম (MOV)***	গুরুত্বপূর্ণ অনুমান (IA)****
৩। বিক্রয় উন্নয়নের জন্য সক্ষমতা বৃদ্ধি করা।	৬০ শতাংশ উদ্যোক্তাগণ আধুনিক বিপণন কৌশল সম্পর্কে প্রশিক্ষণ পাবে। প্রকল্প সময়ের শেষে ৫০ শতাংশ উদ্যোক্তা একাধিক নতুন পণ্য বা পরিষেবা যোগ করবে। ৪০ শতাংশ উদ্যোক্তা পণ্য বা সেবা দান পদ্ধতি উন্নত করবে। ৪০ শতাংশ উদ্যোক্তা পণ্য বা সেবার প্যাকেজিং উন্নত করবে। মাইক্রো এন্টারপ্রাইজ সম্পর্কে তথ্য ওয়েবসাইটে থাকবে।	হাজিরা শীট বেঞ্চ মার্ক সার্ভের সাথে তুলনা উপজেলা ভিত্তিক ওয়েবসাইট	মাইক্রো উদ্যোক্তারা বাজারের পরিবর্তিত চাহিদার প্রতি সাড়া দেওয়ার জন্য প্রস্তুত
৪। মাইক্রো এন্টারপ্রাইজ উদ্যোক্তাদের নেটওয়ার্কিং সক্ষমতা বৃদ্ধি।	মাইক্রো এন্টারপ্রাইজ উদ্যোক্তাদের মধ্যে ৮০ শতাংশ পেশাজীবী দলের সদস্য হবে। জেলা পর্যায়ে ৯০ শতাংশ ব্যবসায়িক দল ইনপুট সরবরাহকারীর সাথে সরাসরি সম্পর্কযুক্ত হবে। ৯০ শতাংশ ব্যবসা প্রতিষ্ঠান কমপক্ষে একটি আনুষ্ঠানিক বা অনানুষ্ঠানিক আর্থিক প্রতিষ্ঠান এর সাথে সমঝোতা চুক্তি করবে। ১০ শতাংশ ব্যবসায়িক সংগঠন জেলা পর্যায়ের উৎপাদকদের সাথে ব্যবসায়িক সম্পর্ক বজায় রাখবে।	বেঞ্চ মার্ক সার্ভে	উদ্যোক্তারা ব্যবসা গ্রুপ গঠনে আগ্রহী আইন দ্বারা ব্যবসায় গ্রুপ গঠন কোন সীমাবদ্ধতা নাই উদ্যোক্তারা আনুষ্ঠানিক ও অনানুষ্ঠানিক প্রতিষ্ঠান থেকে ঋণ নিতে আগ্রহী
ইনপুট (Input) ১.১। উদ্যোক্তাদের জন্য সাংগঠনিক ব্যবস্থাপনা প্রশিক্ষণ প্রদান। ১.২। আনুষ্ঠানিক বা অনানুষ্ঠানিক আর্থিক প্রতিষ্ঠান থেকে আর্থিক সহায়তা প্রদান।			
২.১। মূল কারিগরি ব্যক্তিদের প্রযুক্তিগত প্রশিক্ষণ প্রদান। ২.২। সংস্থাগুলোর মূলধন বাড়ানোর জন্য আংশিক সহযোগিতা করা। ২.৩। বীমার মাধ্যমে ঝুঁকি কমানো।			
৩.১। বিপণন কৌশল এবং পণ্যের ডিজাইনের উপর প্রশিক্ষণ প্রদান। ৩.২। মাইক্রো এন্টারপ্রাইজ সমূহের পণ্য পরিচিতির জন্য ওয়েবসাইট চালু করা।			
৪.১। ইউনিয়ন / উপজেলা ভিত্তিক ব্যবসা প্রতিষ্ঠান সংগঠন করা। ৪.২। জেলা পর্যায়ে / প্রতিবেশী দেশের প্রাসঙ্গিক সফল এন্টারপ্রাইজ পরিদর্শন করা।			

*NS - Narrative Summary,
**OVI - Objectively Verifiable Indicators
***MOV - Means of Verification,
****IA - Important Assumptions

Chapter 3
Annual Report on Research 2020-21

3.1 Introduction

Research is one of the most vital tools to identify the prevailing socio-economic problems. Bangladesh has a predominant rural setting where majority of the people live in the rural areas. Therefore, research plays a significant role in addressing the rural problems and finding out probable solutions. Rural Development has emerged as a distinctive field of policy, practice and research. Rural development has always been an integral part of government policy of Bangladesh. In Bangladesh, most of the development interventions were targeted to increase the standard of living of the people of rural areas. The rural areas of Bangladesh still need development interventions. Research, in this regard, plays the most vital role in identifying the prevailing socio-economic problems of the rural areas and giving concrete solutions to rural problems. BARD has been playing a significant role since its inception by conducting effective research in the field of rural development. Some successful rural development interventions were undertaken in this country through the recommendations of a number of research studies conducted by BARD in the sixties and seventies. Literally, research helps generate new knowledge and thus recast, refurbish, and modify theories. In fact, social research looks for viable solutions to prevailing social problems.

Research is one of the mandated works of BARD. The major purpose of the research works of BARD is to bring viable and sustainable development of rural areas. The Academy emphasizes the participation of the rural people in the development activities and believes that their problems should be viewed from their point of view. The feedback of the rural poor is emphasized in the research activities of the Academy. Research at BARD is sometimes action-oriented leading to action research/pilot projects. The renowned ***“Comilla Model”*** was the result of the action researches of the Academy that changed the rural scenario of the country radically. Existing projects are also evaluated through research programmes that help to modify or upgrade project activities. The research findings and results of pilot experimentations provide valuable data and information to the policy planners for formulating rural development programmes and strategies. The Faculty Members use research findings as training materials and share their views with the trainees, which enriches the training programmes of the Academy and helps the participants to be equipped with the knowledge of the real situation of rural areas.

3.2 Research Plan and Implementation

The researches of BARD are taken through following certain steps. The process generally starts with submitting a research proposal to the Research Division and ends with the publication. The Faculty Members of BARD conduct research studies on various socio-economic problems every year in keeping with their fields of specializations. Research Division of BARD coordinates, advises, collaborates, and provides both intellectual and logistic supports to the researchers. The Division enjoys the status of a service division with a strength of 25 personnel. Prior to the Annual Planning Conference (APC), the Division invites research proposals from the Faculty Members through a pre-structured proforma. Accordingly, research issues and proposals are initiated individually or jointly by them and submitted to the Research Division for consideration in the next years research plan. The Division then refers the proposals to the Annual Planning Conference (APC) for seeking the opinion of invited professionals, academicians, policy planners, research collaborators from various national and international organizations. After a thorough discussion on the proposals by the learned participants, certain proposals are selected and provisionally recommended for inclusion in the research plan. The collaborative research proposals from other agencies are also considered in the APC for inclusion in the next year's plan. After inclusion in the plan, the concerned researchers prepare their research proposals and present the same in the Faculty Meeting of BARD. After incorporations of the suggestions and revisions of the proposal, each individual proposal is processed for approval by the Director-General of BARD. Prior to the planning exercise, a working paper on the research activities of the previous year is also presented in the APC and the participants also critically review the progress of research studies.

3.3 Research Budget and Collaboration

The research activities of the Academy are mostly performed under the revenue budget received from the government on an annual basis. It also conducts collaborative research with financial support from different national and donor agencies.

3.4 Dissemination of Research Findings

The research findings of the academy assist the policy planners by providing grass-roots data and feedback on rural problems with their casual factors and probable solutions. On average, BARD conducts 10 research studies every year addressing issues and problems of rural development. The findings of the researches are disseminated through organizing research highlights, training courses, other seminars and workshops. During 2020-2021 BARD organized one Research Highlights to share research findings with other researchers, policy makers and so on. Moreover, the research results of the Academy are disseminated through publishing reports, newsletters and journals. In

the reporting period, printed research reports, annual reports, annual plans, journals, BARD newsletters (both Bangla and English), and special news bulletin have been circulated to different universities, research institutes, government departments, ministries, and other think tank organizations. **During 2020-21 BARD published 06 research reports which were circulated among different stakeholders.** A list of major publications during the last year is attached (**Annexure- 1**).

3.5 Review of Research Progress 2020-21

The research activities of 2020-21 included a total of 33 research studies. Among these studies, 06 new research studies were initiated in 2020-21 FY. The other 27 research works were carried over as ongoing researches from the previous year (detailed lists can be seen in **Annexure-2 and 3**). Due to COVID-19, researchers could not move to selected places for data collection since March 2020. The prevalence of the Pandemic seriously hampered the progress of work.

3.6 Actions Taken against the Suggestions of Last APC

S.N.	Major Suggestions	Actions Taken Against Suggestions
01.	As per the request of the BOG meeting of BRDB, BRDB has requested BARD to could conduct a study on the strengths and weaknesses of UCCAs in the current context of Bangladesh.	BARD has already completed the study on SWOT Analysisi of UCCAs of BRDB. BARD is planning to submit the final report to the concerned.
02.	BARD could take a research on the issues of food, shelter, health, and other thing for rural people.	BARD has already accomplished a study on food security in 2020. Moreover, during the COVID period, BARD conducted a research on “Impact of COVID-19 Pandemic on Rural Livelihood” where all these issues were addressed.
03.	BARD could take research on income distribution and labour productivity of agriculture sector.	Respective Faculty Members of BARD can conduct research on this issues.
04.	It was suggeded that BARD could undertake research in line with the SDG goals and strategies.	Faculty members of BARD generally undertakes research in line with the government priorities i.e. FY plans, Vission 2041, Delta Plan 2100, Election Manifesto of the ruling party, Sustainable Development (SDGs) etc.

S.N.	Major Suggestions	Actions Taken Against Suggestions
05.	BARD can undertake study on role of solar energy for improveing the livelihood of rural people.	BARD has already intiated a research study on use of solar energy in agicultural irrigation syetm in Bangladesh. Moreover, an action research is going on relating to the use of solar energy at BARD campus.
06.	BARD can publish its research findings in prominent national and international journals.	Faculty member are used to publisging their research works in the national and international reputed journals. Recently BARD has subscribed turnitin softwares to improve the quality of its research studies and research publication in the professional journals.

3.7 BARD as Link Institute of CIRDP

BARD acts as the link institute of CIRDP in Bangladesh. The Research Division is the link desk of CIRDP. This division facilitates collaborative research with CIRDP and provides country data and status of rural development as and when required by CIRDP. BARD conducted a number of studies in collaboration with CIRDP since its inception.

3.8 Linkage with National and International Organizations

Research under Collaboration

BARD regularly conducts research with the collaboration of different national and international organizations. In the reporting period, BARD has completed two evaluative studies as per a decision of the 69th Board of Governors (BoG) meeting of BARD. The titles of these two studies are '*Micro Credit Operation by the Public Sector in Bangladesh: Origin, Performance and Replication*' and '*Ektee Bari Ektee Khamar (EBEK) Project: Challenges and Potentials*'. Both these studies have been published and are circulated among the stakeholders. Moreover, BARD has completed 06 researches under Lalmai-Mainamati project of BARD (BARD part of Amar Bari Amar Khamar Project of the Government of Bangladesh). Faculty Members of BARD, Bangladesh Agricultural University, Mymensingh, Sher-e-Bangla Agricultural University, Dhaka and Cumilla University were involved in accomplishing these researches. The list of these researches are given in the following table:

Sl. No	Title of the Research	Name of the Researchers
1.	Employment Generation of Rural Women through Mashroom Cultivation and Poultry Rearing in Lalmai-Hill Areas of Cumilla	Abdullah Al Mamun, Director (In-charge), BARD, Dr. Shishir Kumar Munshi, Joint Director, BARD, Dr. Md. Rezaul Karim, Professor, Department of Horticulture, BAU, Mymensingh Dr. Bimal Chandra Karmakar, Deputy Director, BARD
2.	Impact of Interest-free Credit on Cattle Rearing for Livelihood Improving in Lalmai-Hill Areas of Cumilla	Mr. Ranjan Kumar Guha, Director (In Charge), BARD Dr. Md. Anowar Hossain Bhuyan, Joint Director, BARD Dr. Md. Akhtaruzzaman Khan, Professor, Department of Agricultural Finance, BAU, Mymensingh Dr. Md. Mashiur Rahman, Associate Professor, Department of Public Administration, Cumilla University
3.	Performance and Economic Viability of Indigenous Fish Varieties in Lalmai-Hill Areas of Cumilla.	Dr. Abdul Karim, Director, BARD Professor Dr. Khandaker Md. Mostafizur Rahman, Professor, Department of Agricultural Statistics, BAU, Mymensingh Md. Tanvir Ahmed, Deputy Director, BARD Anas Al Islam, Assistant Director, BARD
4.	Comparison of vermicompost and other organic measures on improving soil health and yield of rice, cabbage and tomato	Dr. Md. Abdul Kader, Head, Department of Agronomy Bangladesh Agriculture University, Mymensingh Dr. Mohammad Anowar Hossain Bhuyan, Joint Director, BARD Kamrul Hasan, Assistant Director, BARD
5.	Performance and Economic Viability of Recently Released Rice Varieties in Lalmai-Hill Areas of Cumilla	Anisur Rahman Ph.D, Assistant Professor, Department of Agronomy, Sher-e-Bangla Agricultural University, Dhaka Professor Dr. Parimal Kanti Biswas, Department of Agronomy Sher-e-Bangla Agricultural University, Dhaka Md. Babu Hossain, Assistant Director, BARD
6.	Beekeeping in Lalmai-Hill Areas of Cumilla: Potentials and Problems	Mohammad Sakhawat Hossain, Ph.D, Professor, Department of Entomology, Sher-e-Bangla Agriculture University, Dhaka Abdullah Al Mamun, Director (In Charge), BARD Md. Mizanur Rahman, Ph.D, Professor, Department of Entomology, Sher-e-Bangla Agriculture University, Dhaka

Linkage with Different Organizations

BARD maintains strong academic linkage with different organizations through signing MoU. Recently BARD has signed a MoU with Cumilla University to enhance academic excellence. Moreover, prior

to that BARD has also signed a MoU with Park Chung Hee School of Policy and Saemaul (PSPS) of Yunangnam University, South Korea. BARD also has signed MoU with INSEARCH and organizes international seminar every year where scholars from across the world take part.

3.9 Recent Initiatives

Recently, Research Division has taken initiatives to address the current COVID-19 situation and its impact on society and economy through organizing a seminar. The seminar was organized on on 29 June, 2020 where 58 officials of different government and non government organizations took part.

3.10 Capacity Building of BARD Faculty Members

BARD regularly takes initiatives to strengthen its Faculty through training and higher studies. Moreover, the Faculty Members regularly publishes journal articles in both national and international journals as part of their academic exercise. The list of Faculty Members attending higher studies is given below:

Sl. No.	Title of the Programme	Name of the Institute/University	Nature of Degree	Name and Designation of the Faculty Member	Status
01.	PhD Programme	Institute of Bangladesh Studies (IBS), Rajshahi, Bangladesh	PhD	Mr. Benzir Ahmed Deputy Director	Ongoing
02.	PhD Programme	Institute of Bangladesh Studies (IBS), Rajshahi, Bangladesh	PhD	Mr. Abu Taleb Deputy Director	Ongoing
03.	Masters in Applied Bioscience	Kyungpook National University, Daegu, South Korea	Master of Science	Ms. Rakhi Nandi Assistant Director	Ongoing
04.	Masters in Public Policy	Yeungnam University, Daegu, South Korea	Masters Programme	Mr. Kazi Foyez Ahmed Assistant Director	Ongoing

3.11 Completed and Published Research Studies during 2020-21

During the reporting period, 15 studies were completed out of which reports of six studies were published and the remaining 09 studies are undergoing review and finalization stages. The list of published researches is given in **Annexure-1**. Highlights of some of the completed and already published studies are furnished in **Annexure- 4**.

3.12 Completed Research Studies under Review and Finalization

The following studies have been undergoing review and revision stages:

Sl. No.	Titles of the Completed Research Works: 2020-21
01.	River Bank Erosion and its Effects on Rural Society in Bangladesh
02.	Present Conditions of Homestead Plantation in Cumilla: A Case Study of Four Villages
03.	Livelihood and Social Inclusion Pattern of the Migratory Labourers: Cases of Five Districts of Bangladesh
04.	Sustainability of Digital Service Centers: A Case of Union Digital Centers (UDCs) in Bangladesh
05.	Governance through Gram Committee in Participatory Rural Development Project in Bangladesh
06.	কুড়িগ্রাম ও গোপালগঞ্জ জেলার দারিদ্র্যের স্বরূপ: প্রতিকার ও উন্নয়নে করণীয়
07.	Impact of COVID-19 Pandemic on Rural Livelihood
08.	Rural Transforming and Social Wellbeing of Selected Villages in Bangladesh
09.	Inclusive Education and Training of Disable People in Rural Areas of Bangladesh

3.13 Others

One of the important mandates of BARD is to guide the students of different universities in preparing thesis and research reports. Accordingly, the Research Division has been providing academic support to the students of different universities from home and abroad. Moreover, the Faculty Members of BARD provide consultancy services to different organizations with regards to research works.

Publications of BARD: 2020-21

ক্র:	গবেষণার শিরোনাম	গবেষকদের নাম
1.	Micro Credit Operation by the Public Sector in BD: Origin, Performance and Replication.	Dr. Md. Mizanur Rahman (DG BARD) Dr. swapon Kumar Dasgupta Ranjan Kumar Guha Salahuddin Ibne Syed Junaed Rahim
2.	Lives and Hopes of the People of Former Enclaves inside Bangladesh: A search for National Development and Integrity	Dr. Md. Kamrul Hasan Sk. Mashudur Rahman Junaed Rahim
3.	Cost Benefit Analysis of Mechanized and Labour Intensive Crop Production	Abul Kalam Azad Md. Tanvir Ahmed Md. Babu Hossain
4.	Effects of Climate Change on the Livelihood of Coastal Areas of Bangladesh	Md. Masudul Hoq Chowdhury Abul Kalam Azad Dr. Shishir Kumar Munshi Dr. Jillur Rahaman Paul
5.	Effect of Conservation Agriculture based Tillage Options and Different Nutrient Management Practices on the Yield of Aus Rice-Aman Rice-Maize Cropping Pattern in Middle Meghna River Floodplain in	Abul Kalam Azad Dr. Shishir Kumar Munshi Mustafa Kamrul Hasan
6.	Reaping Demographic Dividends through ICT: A Case of LICT Project	Ranjan Kumar Guha Afrin Khan Shah. Md. Imran

Current Research Status at a Glance

Sl. No	Current Status	Number of Researches
1.	Questionnaire Preparation	01
2.	Data collection	05
3.	Tabulation	02
4.	Report writing	08
5.	Under review of Research Division	02
6.	Incorporating RD's Comments	01
7.	Incorporating External Reviewer's Comments	03
8.	Incorporating Internal Reviewers Comments	01
9.	Under process of publication	04
10.	Published	06
	Total	33

Status of Ongoing Studies

New Studies under Research Plan 2020-21

Sl. No.	Research Title	Researchers	Present Status
1.	Development Philosophy of Bangabandhu Sheikh Mujibur Rahman: Reflection in Rural Development Policies, Strategies and Initiatives.	Mlan Kanti Bhattacharjee Md. Shafiqul Islam Dr. Md. Mizanur Rahman Abdullah Al Hussain	Data collection
2.	গ্রামীণ জনগোষ্ঠীর উপর কমিউনিটি রেডিওর প্রভাব	Kazi Sonia Rahman Abdulla-al-Mamun	Data Collection
3.	Impact of COVID-19 Pandemic on Rural Livelihood	Abdullah Al Hussain Kamrul Hasan Anas al Islam	Under review of Research Division
4.	Information and Communication Technology in Agriculture in Bangladesh	Abul Kalam Azad Dr. Shishir Kumar Munshi Md. Babu Hossain	Data collection
5.	জীবন ও জীবিকাঃ একটি উন্নয়ন সমীক্ষা	Abdulla Al Mamun Afrin Khan Azma Mahmuda Junaed Rahim	Report writing
6.	Post Training Utilization of the Cow Rearing and Fattening Training Program Sponsored by the Amar Bari Amar Khamar Project	Saifun Nahar Ashik Sarker Lifat	Questionnaire preparation

Carried Over Studies

Sl. No.	Titles of the Study	Researchers	Present Status
1.	কুড়িগ্রাম ও গোপালগঞ্জ জেলার দারিদ্র্যের স্বরূপ: প্রতিকার ও উন্নয়নে করণীয়	মোঃ সফিকুল ইসলাম ড. আবদুল করিম সালাহুউদ্দিন ইবনে সাঈদ জেনায়েদ রহিম	Incorporating External Reviewer's Comments
2.	River Bank Erosion and its Effects on Rural Society in Bangladesh	Md. Reaz Mahmud Dr. A.K Sharifullah	Under Process of Publication
3.	Present Conditions of Homestead Plantation in Cumilla: A Case Study of Four Villages	Mr. Abul Kalam Azad Mr. Md. Saleh Ahamed Mr. Abdullah-Al-Mamun	Under Process of Publication
4.	Potentialities and Strategies of Public Private Partnership in Rural Development of Bangladesh.	Dr. Abdul Karim Afrin Khan	Report Writing
5.	Family and Human Development Aspirations: Socialization at Bangladesh Transforming Villages.	Dr. M. Kamrul Hasan	Report Writing
6.	Village Court and its Potentialities in Grievances Reduction of Bangladesh	Nasima Akhter Azma Mahmuda Farida Yeasmin	Incorporating RD's Comments

Sl. No.	Titles of the Study	Researchers	Present Status
7.	Livelihood and Social Inclusion Pattern of the Migratory Labourers: Case of Five Districts of Bangladesh.	Salahuddin Ibne Syed Junaed Rahim	Incorporating External Reviewer's
8.	Interrelation between Socio-Economic Condition and Dietary Diversity in Rural Areas of Bangladesh: Analyzing the Determinants of Food Security.	Abdullah Al Mamun Rakhi Nandi	Report Writing
9.	Rural Transforming and Social Wellbeing of Selected Villages in Bangladesh.	Dr. Md. Kamrul Hasan Nasima Akhter	Incorporating External
10.	Adoption of ICT in Local Government Institutes in a Developing Country: An Empirical Study on Bangladesh Rural Local Government.	Fouzia Nasreen Sultana Kazi Sonia Rahman Sharmin Shahria	Report Writing
11.	Inclusive Education and Training Towards Autism for Empowerment: A Sociological Study of Selected Villages.	Nasima Akter Farida Yesmin	Under review of Research Division
12.	Climate Change Effects on the Coastal Livelihoods: A Case of South-Western Bangladesh.	Md. Reaz Mahmud	Report Writing
13.	State of Primary Education in Rural Areas of Bangladesh.	Dr. Masudul Hoq Chowdhury Dr. Md. Kamrul Hasan Afrin Khan Benzir Ahmed	Data Collection
14.	Role of Agricultural cooperatives in Ensuring Farmer's Wellbeing: Cases of some Selected Areas of Bangladesh	Mr. Junaed Rahim	Incorporating Internal Reviewers Comments
15.	Agro- forestry in Achieving Food Security of upland smallholders: A Case on Lalmai Hill Areas of Cumilla District.	Abdullah Al Mamun Salah Ahmed	Under tabulation
16.	Factors affecting Rural Urban Migration and Rural Change: Cases of Two Villages in Bangladesh.	Dr. Md. Kamrul Hasan Kazi Foyez Ahmed Sharmin Shahria	Data Collection
17.	Farmer's Knowledge, attitude and practice of mastitis in Cow	Dr. Bimal Chandra Karmakar Md. Anwar Hossain	Report Writing
18.	Adoption and Integration of ICT by Secondary School Teachers in Rural Schools of Bangladesh: An Analysis Using the Technology Acceptance Model (TAM).	Irin Parvin Md. Abu Taleb Ashik Sarker Lifat	Under Tabulation
19.	Contemporary Knowledge of Clay Artisans in Bijoypur.	Dr. Sk. Mashudur Rahman	Report Writing
20.	Sustainability of Digital Service Centers: A Case of Union Digital Centers (UDCs) in Bangladesh	Irin Parvin	Under Process of Publication
21.	Governance through Gram Committee in Participatory Rural Development Project in Bangladesh	Dr. Md. Mizanur Rahman	Under Process of Publication

Highlights of Some Completed Research Works

1. Cost Benefit Analysis of Mechanized and Labor-Intensive Production of Major Crops

Abul Kalam Azad, Director, BARD
Md. Tanvir Ahmad, Deputy Director, BARD
Md. Babu Hossain, Assistant Director, BARD

Abstract

The agriculture in Bangladesh is characterized by low productivity, subsistence farming, labor-intensive, small and fragmented land holdings, and less profitability. Shortage of labor and higher wage rate makes it difficult for the farmers to increase the crop productivity as well as make it economically profitable. This study was conducted in four Upazilas of Cumilla and Dinajpur District of Bangladesh with an aim to analyze the costs and benefits of mechanized and labor-intensive production of four major crops, e.g. rice, wheat, maize, and potato. The study mostly used quantitative approaches in data collection and analysis. However, some qualitative data were also gathered for analysis purpose. Total sample for this study was 240 (60 x 4 Crops) covering 60 sample farmers selected for each crop. Data relating to cost and return were calculated on per hectare basis. The study found that there is no difference in the crop yield under both the methods, but in mechanized crop cultivation method, cost of production is low that ultimately brings higher profitability and higher Benefit-Cost-Ratio (BCR) for all selected crops. Under the mechanized cultivation method the total cost of production of rice, wheat, maize and potato was 27.8%, 20%, 18% and 16.6% respectively, less than the labor-intensive cultivation method. The result also showed that mechanized crop cultivation reduces the cost of various intercultural operations from 10% to 78.8% of selected crops. The net return from labor-intensive and mechanized cultivation of rice was BDT 17,636 & BDT 41,224 per hectare and the BCR was 1.19 and 1.62, respectively. In case of wheat cultivation, the net return from labor-intensive wheat production was BDT 13,315 per hectare and that from mechanized wheat production was BDT 24,678 per hectare whereas BCR was 1.28 and 1.64, respectively. The study also found that the net return from labor-intensive maize cultivation was BDT 64,973 per hectare and that of the mechanized maize cultivation was BDT 87,705 per hectare. The BCR was 1.80 and 2.32 for labor intensive and mechanized maize cultivation, respectively. In case of potato cultivation, the net return from labor-intensive production was BDT 89,585 per hectare and that of the mechanized production was BDT. 1,26,405 per hectare. Whereas,

the BCR was 1.80 and 1.98 for labor-intensive and mechanized method of production, respectively. Based on the findings of this study, it was concluded that mechanized method of crop cultivation is less costly and more profitable than that of the labor-intensive method of crop cultivation.

1. Statement of the Issue

Agriculture of Bangladesh is characterised by overwhelmingly small holdings due to higher population density and nearly 70% of its population residing in the rural areas coupled with unabated land fragmentation due to the inheritance laws of the country. As of 2017, it employed 40.6% of the total labor force (BBS, 2019) and comprised 14.77% of the country's GDP (BBS, 2019). Abundance of agricultural labor made the crop production labor-intensive in Bangladesh since many years. But in recent times, availability of agricultural labor has become limited especially during the planting and harvesting seasons. Moreover, agricultural wage rate has been increasing every year while the labor force is decreasing (Financial Express, 2018), which as a result, is creating growth barriers in this sector.

In order to replace the traditional inefficient agricultural tools, efficient mechanized cultivation must be introduced and extended for sustaining agricultural growth. The government has already attributed due importance to agricultural mechanization in the National Agricultural Policy (MoA, 2009). In the policy, it included that the government would encourage production and manufacturing of agricultural machineries that are adaptive to our socio-economic context. It also emphasized that manufacturing workshops and industries engaged in agricultural mechanization activities would be provided with appropriate support. The mechanization of agriculture in Bangladesh started in 1960s when the low lift pump and deep tube-well were introduced for irrigation purpose. Later on, many other technologies have been made available to the farmers for irrigation, tillage, ploughing, spreading fertilizers, spreading pesticides, weeding, harvesting, threshing, drying, etc. However, due to small and fragmented land holdings and many other socio-economic factors, a complete form of agricultural mechanization for any crop is still absent in Bangladesh. In this situation, it is difficult to generalize whether the mechanized or labor-intensive crop cultivation is more profitable to the farmers. Based on such a premise, empirical evidence will help the policy planners to formulate policy about the extensive expansion of agricultural mechanization in Bangladesh. However, this study examines the cost and returns of both labor intensive and mechanized cultivation of crops in a homogeneous condition. Specifically, this study evaluated the cost and return of four selected crops (e.g., rice, wheat, maize and potato) cultivated by homogenous group of farmers in labor-intensive and mechanized manner.

2. Objectives of the Study

The general objective of the study is to analyze the costs and benefits of mechanized and labor-intensive production of some major crops in Bangladesh. The specific objectives are:

- i) To examine the socio-economic and demographic information of the respondent households;
- ii) To determine the costs and returns of labor-intensive production of rice, wheat, potato and maize;
- iii) To find out the costs and returns of mechanized production of rice, wheat, potato and maize; and
- iv) To analyze the relative profitability of the selected crops under labor intensive and mechanized cultivation.

3. Methods of the Study

- **Survey Design:** The study has used mostly quantitative approaches for collecting and analyzing the data. Some qualitative data were gathered as well. Primary data were collected for analyzing purposes.
- **Sampling Technique and Determination of Sample Size:** To find out the costs and returns of both labor-intensive and mechanized production, the study has considered four major crops *viz.* rice, wheat, maize and potato. Considering the resource constraint and time, the study purposively selected two districts namely Cumilla and Dinajpur as the study area. Cumilla was considered for its extensive rice and maize growing area whereas, Dinajpur was considered for wheat and potato. Two Upazilas from each selected district were identified purposively based on the production areas and volume of the selected crops. First, for each selected crop, both mechanized and labor-intensive crop cultivars were listed from the selected locations and then 30 farmers were randomly chosen who practiced labor-intensive production and another 30 farmers were randomly taken who adopted mechanized production of the respective crop. So, a total of 60 farmers were chosen for each crop under this study and thus the total sample size was 240 (4 Crops x 60 HHs).
- **Data collection:** Primary data related to production inputs and outputs, their prices, farmers' perception on the production of selected crops etc. were collected through household sample survey. Two semi-structured schedules were used to collect primary data through face to face interviews.
- **Data Processing:** The standard data processing procedure was used by expert data operator. After screening was over, editing was done to ensure that interview schedules had been correctly filled-in, interviews conducted to the right respondents, items of information

recorded or responses to questions obtained were consistent with one another. The data from the interview schedules was incorporated into computer. Data checking, editing, and sorting were done through the research team members.

- **Estimation of Cost and Return:** For calculating the cost of cultivation of the selected crops in both the cases of labor intensive and mechanized production, all variable costs such as human laborer, land preparation, seed, manures, fertilizers, insecticides, irrigation, and interest on operating capital etc. were calculated on per hectare basis. In case of mechanized production, the rental cost of using the particular machine was considered. Total return of the crop production was calculated by considering the value of main product and by-products as well. The cost and return were examined by determining Net Income (NI) and Benefit Cost Ratio (BCR). The BCR was calculated in an undiscounted manner. NI was calculated by using the following formula:
 - $NI = \Sigma TR - \Sigma TC$
 - BCR was calculated by using the following formula
 - $BCR = \text{Total Return} / \text{Total Cost}$

4. Summary of the Findings

The study considered four major crops of Bangladesh for analyzing their costs and returns under both labor intensive and mechanized way of cultivation. The summary of major findings of the study is as follows:

- i) The average age of the farmers in the study areas is about 50 years, which clearly indicates that youths are less interested in farming now-a-days. Agricultural mechanization up to an appropriate scale can bring the youths back into the agriculture. The selected farmers were small farmers and they had attained only primary level of education. A very small percentage of the selected farmers have received some sort of trainings related to crop production and management. It is very important to provide enough trainings to the farmers on various aspects of crop cultivation along with mechanization.
- ii) The study found that most of the intercultural operations in mechanized cultivation of rice incurred less cost compared to the labor-intensive rice cultivation. In total mechanized rice cultivation was 27.8% less costly than labor intensive rice cultivation. The analysis also showed that there was not much difference in the yields of rice in both the cultivation methods. However, net return was found BDT 17,636 per hectare and BDT 41,224 per hectare in both cultivation methods. So, BCR was 1.19 and 1.62 respectively. It implies that BDT 1.19 and BDT 1.62 could be earned by investing BDT 1.0 in rice production under both cultivation methods respectively.

- iii) In case of wheat cultivation, the study found that land preparation, laddering, harvesting and threshing of wheat required 50.0%, 8.0%, 51.0% and 36.0% less cost in mechanized cultivation method compared to those of the labor-intensive cultivation, respectively. In total, mechanized wheat cultivation is 20.0% less costly than labor intensive wheat cultivation. The study findings also showed that there was no remarkable difference in the yield of wheat in both the cultivation methods. Considering the prevailing market price of wheat, the net return from labor intensive wheat production was BDT. 13,315 per hectare and that from mechanized wheat cultivation was BDT. 24,678 per hectare. So, BCR was found 1.28 and 1.64 respectively.
- iv) Considering the prevailing market price of maize and the value of by-products, the total return from labor intensive maize production was found BDT 1,46,167 per hectare and that from mechanized maize cultivation was BDT 1,54,291 per hectare. On the other hand, the net return of labor-intensive and mechanized maize cultivation was BDT 64,973 and 87,705 per hectare, respectively. Consequently, the BCR was 1.80 and 2.32 for both cultivation methods respectively.
- v) In case of potato, the net return of labor-intensive potato cultivation was BDT 89,585 per hectare. On the other hand, the net return of mechanized potato cultivation was BDT 1,26,405 per hectare and the BCR was 1.58 and 1.98 respectively.

5. Recommendations

- ❖ Mechanization in crop cultivation reduces the cost of production that ultimately enhances the profitability of crop production. Therefore, farmers should be encouraged to adopt mechanization.
- ❖ Rice is the major crop that is grown by most of the farmers in the country, so more emphasis should be given on mechanization of rice cultivation. In traditional cultivation method, rice farmers would get very negligible profit which discourages them to grow rice further. So, to reduce the rice production cost, it is recommended to make available the suitable machineries for the rice farmers. As most of the rice farmers in our country are marginal and small farmers having small pieces of land, they must be organized and go for collective farming. Collective use of agro-machineries could be another way to increase efficient use of the machine.
- ❖ Very small percentage of the farmers receives skills development training in agriculture technology that hinders the crop production as well as the expansion of mechanization. So, adequate and appropriate training should be provided to the farmers based on their needs.
- ❖ Most of the agro-machines are expensive to buy for the small and marginal farmers. So, government must continue to provide enough subsidies the real farmers to buy the agro-machineries.

2. Effects of Climate Change on the Livelihoods of Coastal Areas of Bangladesh

Dr. Masudul Hoq Chowdhury, ADG (PRL), BARD

Abul Kalam Azad, Director (Project), BARD

Dr. Shishir Kumar Munshi, Joint Director, BARD

Dr. Jillur Rahman Paul, Assistant Professor, Kobi Kazi Nazrul Islam University

Abstract

The study was conducted to determine impact of climate changes over the years and to identify coping mechanism to adjust with the negative impact of climate change. Sample survey method was employed. Data were collected from the selected coastal areas of the country viz., Barguna, Pirojpur and Patuakhali. The impacts on the living communities such as crops, fisheries, livestock, and forestry were looked into. The number of the respondents was 600 taking 200 from each district. A semi-structured questionnaire was prepared and validated by pre-testing and was administered to collect information for the study. Study results showed that average family size is 4.34 which is below the national average family size (4.48) in Bangladesh. The majority respondents (30%) were found having education of class I-V, followed 28% who had education up to class VI-SSC. Most respondents (90%) belonged to small farmer's category having monthly income of BDT 50,000 Tk. In total, 50% respondents were found involved in different development organizations such as Grameen Bank, BRAC and ASA etc. A few respondents received various skill training (crops, fish, poultry rearing and forestry) provided by different GOs and NGOs. Patuakhali is more vulnerable to tidal surges, salinity intrusion and storm, Pirojpur is more vulnerable to storm and floods and Barguna is more vulnerable to floods, storm, tidal surges and salinity intrusion. The study findings clearly indicated that changes occurred in climatic variability over the decades and the affected people had to cope with different climatic problems as flood, storm, tidal surges and salinity intrusion in the future. Twelve causes of climate change were identified in the study areas. Among them, reduction of trees and forest resources ranked first in all locations. Other problems were related to river erosion, environmental pollution, and indiscriminate construction of mobile tower, carbon emission, unplanned and rapid growth of industry, sea level rise due to smelting and emission of smoke from increasing motor vehicle. All respondents faced shortage of pure drinking water due to occurrence of storm, tidal surge and flood. The survey revealed that houses of the respondents were affected by climatic disasters. The majority respondents suffered from cold fever/cough and diarrhea/dysentery during or after disaster. It was found that activities of educational institutions were suspended to some

extent due to flood. Majority of the respondents (68%) mentioned 'damage of maximum houses and trees' followed by 'damage of roads, culverts' (63%) and 'inundation of cultivable land' (47%). Maximum damage incurred from crops sector compared to fish and livestock. Paddy was affected more by flood and storm but salinity caused moderate damage to paddy. Flood caused two and half times more loss in livestock compared to storm in all study areas. Most of the respondents identified six major steps to minimize impacts of climate change of which 'purchase of medicine for health problem' ranked first which was followed by 're-cultivation of crops after disaster'. The study results indicated that appropriate adaptation and mitigation measures should be taken through institution building and governance should be ensured to minimize the disaster problems. The study revealed that maximum help came from LGED, Union Parishad, Banks and Bangladesh Army to disaster prone people. The contribution of Upazila Parishad, Department of Relief and Disaster Management and Department of Forestry was found comparatively low amongst all service providing agencies. The majority of the respondents received foods, cash money, loans and cloths from NGOs. The study suggested constructing more multistoried and multipurpose cyclone shelters in suitable places. The government should provide adequate credit, different inputs and livelihood training to the farmers after the major climatic disaster occurred. Green belt should be created and saline tolerant rice varieties should be given to the affected people.

1. Statement of the Issue

Climate change means the unbalanced situation of weather. It is a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions or the distribution of events around that average (e.g., more or fewer extreme weather events). Climate change may be limited to a specific region or may occur across the whole Earth. Climate change mainly refers to temperature rises that cause global warming. Global warming imposes an imbalance in weather patterns causing natural disasters such as irregular precipitation, flood, river erosion, storm surges, saline water intrusion, water logging and drought. All these changes again cause the most threatening impact on natural, social and economic systems. Human induced changes in the global climate and associated sea level rise are widely discussed in the global forums by development thinkers, academics, policy makers and scientists.

Despite various interventions and policies from Government, local institutions and foreign agencies, people are struggling hard to sustain themselves. Climate change effects have been aggravating the vulnerable situation of those who are poor and live especially in rural areas. Because the poor

usually don't have enough financial capital and the physical condition is not much favorable in rural areas to cope with the shocks of climate change. Therefore, the vulnerable situation is being lingered and worsened in many cases. In Bangladesh, the crop water requirement is getting higher gradually as the monsoon rain and surface water flow has a decreasing trend due to climate change. Apart from this, the groundwater layer is also going down day by day due to scarcity of surface water and the huge demand of water for the large number of population.

According to IPCC (2007), sea level in the coastal region of Bangladesh has been predicted to rise up to 80 cm by 2100. Moreover, in line with the 3rd International Conference on Water & Flood Management (ICWFM-2011), the people of Bangladesh will be affected by climate change directly or indirectly in all regions. Therefore, it is now being considered as one of the most vulnerable countries due to climate change.

Manmade water diversion upstream in India both exacerbates floods and river erosion in Bangladesh; as well as increases salinity intrusion into the Bengal delta (Mahmuduzzaman et al., 2014). Moreover, shrimp farming in the region limits people's livelihood opportunities and its resultant effect in soil salinity increase pressed them into subsistence agriculture (Paprocki & Cons, 2014). Climate change will further increase these natural and man-made environmental hazards and thus people's livelihoods will be in a miserable condition. The latest scientific research suggests that global warming leads to both more intense cyclones in the Bay of Bengal, and more aggressive tidal waves increasing the frequency of coastal erosion (Mahmood, 2012; Paul, 2015). Research also suggests that there will be an increase of monsoon flows in future, which would increase the potential for flooding in the region. Low flows, however, may occur during drought periods, which will have impact on agricultural productivity by increasing salinity intrusion (Whitehead et al., 2015). For Bangladesh, combined impact of these phenomena has its manifestation in her highly vulnerable coastline (Nicholls et al., 2016; Nicholls et al., 2018). This is particularly true if their livelihood depends on a climate sensitive ecosystem (Corendea et al., 2012). The majority of the people living in southwest Bangladesh, for instance, are connected to either agriculture or fishing or both, which are highly dependent on the usual functioning of natural ecosystems.

The UK Department for International Development (DFID) offers a Sustainable Livelihoods Framework (SLF) that views livelihoods as systems and provides a way to understand the assets people draw upon, the strategies they develop to make a living, the context within which a livelihood is developed and those factors that make a livelihood more or less vulnerable to shocks and stresses.

It is obvious that the rural livelihoods of Bangladesh are highly dependent on natural resources and Climate stimuli deteriorate natural resources. It includes agriculture, agricultural related activities, fishing and some other activities such as cottage industries and business, etc. In this context, the present study was conducted to assess the effects of climate change on the rural livelihoods of coastal areas of Bangladesh.

2. Objectives of Study

The general objective of the study is to determine the productivity and farm income that are affected by climate variability and change over the years, and identify the coping mechanisms for extreme events of climate change. The specific objectives of the study are to:

- i) assess the socio-economic status of different community people in selected areas of Bangladesh;
- ii) explore extreme events of climate change occurred and measure its effects on the productivity of the farms in the study areas;
- iii) determine farm income affected by extreme event of climate change; and
- iv) identify coping mechanism from extreme events of climate change.

3. Study Methods

The study was an exploratory type of research since the whole process of searching attempted to gain better understanding of different dimensions of the livelihoods affected by extreme events of climate change. Primary data were collected through a questionnaire and interview schedule.

The study was conducted in the areas which experienced extreme climatic events for a long time. Therefore, Barguna, Potuakhali and Pirojpur districts were selected which were more affected by extreme events of climate change particularly flood, cyclone and saline water intrusion in order to fulfill the objectives of the study. All the living communities involved in agriculture, livestock and fisheries farming were selected from the above three districts. The sample population was 600 that covered 200 affected people from each district. A semi-structured questionnaire was prepared and validated by pre-testing and then it was administered to collect information for the study. The secondary information were collected and used for this study as reference. All surveys were carried out from November 2014 to May 2015. Collected data were processed, analyzed, and calculated as descriptive statistics in the form of numbers and percentages by the tabulators of the Research Division of Bangladesh Academy for Rural Development (BARD). The table design was done by

researchers prior to tabulation of the collected data. Thereafter, all the study results were presented in both tabular and graphical form.

4. Study Findings

Study results showed that the average family size is 4.34 which is below the national average family size (4.48) in Bangladesh (Population and Housing Census 2011, BBS). The highest family size was found at Pirojpur (4.60) that was followed by Patuakhali (4.31) and Barguna (4.12). The highest number (30%) of respondents were at the level of education I-V followed by VI-SSC (28%). The highest number of respondents (90.50%) in all study areas belonged to the small farmer's category. Patuakhali demonstrates the highest number of small farmers category (97%) followed by Pirojpur (96%) and Borguna (79%). Findings of the study indicate that respondents of the Patuakhali and Pirojpur are more vulnerable to climatic hazards compared to Barguna. The majority of respondents are in income groups ranging from BDT 50,001.00 to BDT 1,50,000.00 whereas, only 5% respondents belong to higher income groups ranging from Tk. 200,001.00 and above in the study areas. Respondent's involvement in different organizations is on an average fifty percent. The organizational involvement ratio at Pirojpur was low compared to Barguna and Patuakhali. Grameen Bank, BRAC and ASA are playing an important role, particularly, looking after financial aspects in the study areas. The highest number of the respondents (65%) of Pirojpur had taken loans and the lowest at Barguna. Grameen Bank was found the major source of loan provider in the study areas that was followed by local NGOs, Bangladesh Krisi Bank, ASA and BRAC.

Findings indicate that all areas are more vulnerable to storm whereas Barguna is also vulnerable to flood, and Pirojpur and Patuakhali are also vulnerable to tidal surge. The study findings suggest that appropriate measures should be taken to combat storm and tidal surges in the study areas. Twelve causes of climate change were identified in the study areas of which reduction of trees and forest resources by various means ranked first in all locations.

Average working days and availability of pure drinking water hampered and respondents suffered from cold fever/cough and Diarrhea/dysentery in all study areas during or after disaster caused by extreme events of climate change. Mainly six types of infrastructure were affected including houses and educational institutions. The majority of the respondents (68%) mentioned 'damage of maximum houses and trees' followed by 'damage of roads, culverts (63%) and 'major part of cultivable land inundated' (47%) due to flood. The effects of storm were: 'massive damage of mud house' (79%), 'damage of trees' (42%), 'massive damage of crops' (37%), 'casualty of lives and property' (37%) and crops and soils were affected by salinity intrusion (37%).

Maximum damage incurred in crops sector compared to fish and livestock in all study areas. Paddy was affected more by floods and storms where tidal surges scored low. But, salinity caused moderate damage to the paddy. Flood caused the maximum loss in fish production followed by storm and tidal surges where salinity had no effect on it. Production of livestock was hampered by floods and storms where tidal surges and salinity had no effect on it. Flood caused two and half times more loss in livestock compared to the storm.

Six adaptation measures were identified of which 'purchase of medicine for health problem' ranked first. This was followed by 're-cultivation of crops after disaster' at Barguna and 'use of fitkari for drinking water' at Pirojpur and Patuakhali, 'early cultivation through seed bed preparation' at Barguna and Pirojpur and 'use of drinking water from DTW/STW' at Patuakhali and 'reconstruction of roads, bridge and culvert with the help of GO, NGO and temporarily by Union Parishad'. The study results indicate that appropriate adaptation and mitigation measures should be taken in line with aforesaid steps undertaken through institution building and ensured governance to minimize the disaster problems relating to extreme events of climate change.

About 15 strategies were adopted by respondents to cope with extreme events of climate change like floods, storms and tidal surges. Out of them, major adaptive measures of the respondents were 'staying at elevated houses or places' (15%), 'taking loan facilities' (14%), 'staying at cyclone centre/shelter centre' (11%) and 'staying on bank/embankment' (11%). Particularly for the salinity intrusion, about 45% of the respondents adopted 'saline tolerant rice variety cultivation' as coping strategy followed by 'conserve water in the field during dry season' (26%). Different government institutions are involved to minimize the damage of livelihoods basics. The major coping strategies of the government were found as relief and loan support, supply of essential materials needed during after disasters, construction of embankment and providing of hand cash to the affected people. Local Government Engineering Department (LGED), Union Parishad, Banks, Bangladesh Army etc. were found to be mostly involved government institutions to address the climatic events in the eyes of the respondents. Apart from these, NGOs, CBOs and individual or civil society were also involved in this regard. These organizations also provided clothes, food, pure drinking water, medicine which are immediate needs of the affected people. From these involvements, the study identified some advantages such as 'reduce the intensity of floods' (37%), 'reduce loss from floods' (23%), 'reduce death toll' (16%) etc. On the contrary, the study found some disadvantages of the steps taken by the different organizations. For example, long distance of cyclone shelter (27%), the existence of saline water in the polders (21%) etc. were also mentioned.

The coping steps taken by government and non-government organizations are not enough for adaptation to climate change events. For flood, the majority of the respondents (25%) in Barguna mentioned 'building shelter house/ cyclone shelter more' while in Pirojpur, it was 20% and in Patuakhali 24% mentioned 'construction and refreshment of embankment/ band' as further steps to be taken for mitigation measures. Like a flood, the respondents (25%) in Barguna mentioned the same measure for storm coping mechanism. In case of Pirojpur, 'providing early warning system (15%) and in Patuakhali 'support to rehabilitation with the preparation of goods and strong quality houses' (26%) were mentioned as further steps for coping storm. In regard to tidal surges adaptation, 25% of respondents in Barguna mentioned 'construction and refreshment of embankment/ band' while 22% and 19% of the respondents in Pirojpur and Patuakhali opined 'provide early warning system' and 'support rehabilitation with good and strong quality houses' respectively as further needed steps. To cope with salinity intrusion, majority of the respondents: (41% in Barguna, 32% in Pirojpur and 53% in Patuakhali) suggested 'cultivation of saline tolerant rice variety' as further step to be taken.

5. Recommendations

- ❖ Construction of more multistoried and multipurpose cyclone shelters in suitable places should be ensured.
- ❖ Necessary stress should be given on the invention of more saline and flood tolerant varieties of rice, vegetables and other crops and their cultivation.
- ❖ The weather warning system needs to be strengthened and mass awareness should be created in the vulnerable areas of the country.
- ❖ Adequate credit and livelihood training should be provided to the farmers.
- ❖ Creation of a green belt should be given more emphasis.
- ❖ Development plan for Barguna, Patuakhali and Pirojpur should be taken considering local climate change extreme event issues.

3. Lives and Hopes of the People of Former Enclaves of Bangladesh: A Search for Development Interventions

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Abstract

The story of enclave people in Bangladesh encompasses their livelihood pattern and a historical phenomenon. The objective of the study was to: analyze the historical perspective of the lives of enclave people; examine their hopes and aspirations about their future and analyze the possible development interventions in the enclave areas. The people of the former enclave were mainly engaged in agriculture, day labour, and petty business. The dwellers of former enclaves faced multiple problems. One of the major problems was no citizenship. Absence of citizenship made the crisis of self-identity amongst them. They were unable to access the basic facilities like education, medical treatment, entertainment, legal support, business etc. The respondents opined that they need development interventions in the areas like modern agriculture, health facilities, access to quality education, employment (both in and out side country), family planning, women development, business opportunities, cottage industry, market access, and skill based training. They also demanded proper communication facilities to nearby schools. Electricity has been provided in the enclave after the dispute was resolved. Formation of village based organizations could play vital role to develop the people of the former enclaves.

1. Statement of the Issue

Enclaves, in literary terms, are defined as fragments of one country totally surrounded by another. The concept of enclaves as an implicit phenomenon exists in the history of humankind from the earliest times. The Treaty of Madrid of 1526 is probably the first document explicitly containing the word “enclave.” The term “enclave” entered the language of diplomacy rather late in English, in 1868, coming from French with a sense derived from the late Latin *inclavatus* meaning “shut in, locked up” and *clavis* meaning a “key”. Thus the term denotes a portion of territory within or surrounded by a larger territory whose inhabitants are culturally or ethnically distinct. In other words, it is a place or group that is different in character from those surrounding it.

Bangladesh has a long history of culture, movement and livelihood. It is a part of old civilization, culture, and heritage. After the partition in 1947, a new era emerged with lots of hopes and aspirations. But soon the people of Bangladesh (former East Pakistan) started facing suppression by

the then Pakistan regime. Moreover, troubles had emerged in multiple ways in borderland of then Bengal. It is rightly narrated by Scendel (2002) in his book 'Bengal Borderland: Beyond State and Nation in South Asia' where he categorically described and narrated that Bengal borderland not only encompassed enclaves but also caused sufferings of people in many parts of Bangladesh-India boundaries and Bangladesh and Myanmar (Burma) boundaries. It changed the pattern of migration, exchange of goods, cross border trades, conflicts and problems. This research highlights the plights of the people of former enclaves and explores possible ways of development in there areas. Scendel (2002) opined that "tens of thousands of people were living beyond the reach of state and nation in dozens of enclaves in South Asia". He also narrated that "nations are seen as being socially constructed in many different ways; thus, there are nations without states, new nations that are invented before our eyes while older ones disintegrate, and older diasporic nations that are being joined by a host of new transnational communities" and "nations are now conceived as more fluid, malleable, and unpredictable than ever before".

The Bangladesh-India enclaves were also known as *chitmahals*. The problems of enclaves originated from the historical partition of India and Pakistan in 1947. The Mountbatten Plan of 3 June 1947, formed a Boundary Commission, headed by Sir Cyril Radcliffe to divide Bengal and the Punjab between India and Pakistan. After 1971, Bangladesh had inherited the enclaves. Over 50,000 inhabitants, termed as 'nowhere people' of the enclaves of Bangladesh and India got the ending of nearly 70 years of statelessness and lack of citizen rights. After 68 years of deprivation of citizen rights, on 31 July 2015 they achieved identity and freedom finally (Ahmad 2015). The staff correspondence of The Daily Star reported the event in the following way:

"Trapped in the enclaves, locally known as *Chhitmahals*, for 68 years, they had been denied of basic facilities like health, water, electricity, schooling and roads". The deprivation was reflected in the culture, behavior and livelihood pattern of the people of enclaves. With the swap of 162 enclaves between two countries, around 50,000 people finally were able to get rid of the ignominy of being nobody's people in a no man's land. As the clock struck the midnight hour on Friday night, 51 Bangladeshi enclaves in Coochbehar district of West Bengal, and the 111 Indian enclaves located in the Bangladesh districts of Lalmonirhat (59), Panchagarh (36), Kurigram 12 and Nilphamari (4) were amalgamated with the main land (Bangalore Mirror, August 02, 2015). The highest number of Indian enclaves in Bangladesh were in Lalmonirhat- a total of 59, while 36 were in Panchagarh, 12 were in Kurigram and four were in Nilphamari. With the historic land swap, residents of these enclaves are finally recognized as Bangladesh nationals. However, around 1,000 dwellers of enclaves belonging

to Bangladesh opted for Indian citizenship while none from the Bangladeshi enclaves belonging to India wanted Bangladeshi citizenship. The flag of Bangladesh was hoisted in 111 enclaves in the northern districts of Panchagarh (36), Lalmonirhat (59), Nilphamari (4) and Kurigram (12) on 1 August, Saturday, which was characterized as jubilant celebration. This has been marked as a historical achievement of the government. But for ensuring their freedom, people of former enclaves of both Bangladesh and India demonstrated peaceful activities like hunger strike, rallies etc. In this regard, Shewly (2016) mentioned that India-Bangladesh Enclave Exchange Coordination Committee (IBEECC), a civil-society organization, conducted nonviolent activities including hunger strikes and peaceful rallies in India and Bangladesh to raise awareness among policymakers (Shewly, 2016). The issue of enclave was duly focused in the media of both Bangladesh and India and also in the international media. "We have no basic rights. We are living like animals in a cage," said Abu Bakar Siddique, an inhabitant of Indian enclave. However, Abu Bakar finally saw a ray of hope as the India's parliament passed the landmark constitution amendment bill to ratify the long-pending Land Boundary Agreement (LBA) with Bangladesh. "We've heard that our long-cherished dreams will be fulfilled soon. We cannot explain how happy we are ... We will no more be known as stateless people ... We will have our own identities," he said. "Now we hope to get the nationality very soon. We will be able to send our children to schools and colleges without hiding our real location and information," said Nur Hossain, aged 60, a resident of Garati enclave in Panchagarh. Even educated people of the enclaves could not avail jobs since they did not have a national identity, he said. "Our daughters often suffer torture after marriage. But they cannot do anything as there is no marriage registration system for us (BBC News, 31 July, 2015)".

Nur's neighbor Mariyam Begum was happy for a different reason. "Now we will get health service from the hospitals," she said after describing how they often were denied medical services at local hospitals for not having a nationality (BBC News, 31 July, 2015).

Pregnant Kalpana Akhter of Dashierchhara enclave in Kurigram's Phulbari said, "I was not allowed in the hospital whenever I said that I live in an Indian enclave ... Now, I hopefully will get healthcare facilities. "Children in particular were very happy (BBC News, 31 July 2015).

"I had to fake my identity to get admitted to school. Now my father said "we won't need to do so anymore," said Ayesha Siddiqa, a class-IX student of Gangarhat Girls' High School in Phulbari.

Milon Miah, a seventh grader of Gangarhat High School in Phulbari, said: "Now we can play and move around freely." Sixty-year-old Hasan Ali of Kuchlibari enclave in Lalmonirhat described this as

a "new freedom", and said: "we hope that we will enjoy the taste of our freedom (The Daily Star, 31 July 2015)."

Asgar Ali, a 100-year-old man from the oldest Bangladeshi enclave here, had been waiting for years for this dream to come true. "Allah wanted me to see this day. Now I can die in peace in India, as an Indian. In 15 years, war broke out there and I returned to Moshaldanga," Asgar recounted haltingly- "It has been painful since. We had no access to schools or hospitals and enclave dwellers were even arrested for stepping out on the road. Now, there will be no restrictions, people here will not be treated as outcasts," he said (Sen & Bhattacharya, 2015). After the exchange, the voices and speech of the Prime Minister of Bangladesh is citable. Terming former enclave dwellers as the sons, citizens and near and dear ones of Bangladesh, Prime Minister of Bangladesh Sheikh Hasina, assured them that her government would do whatever necessary for their overall welfare. "The night of sorrow is over, and you [ex-enclave dwellers] have marched towards the path enlightened with new sunlight. Your march forward will continue...May your life become beautiful and successful," she said (The Daily Star, 31 July 2015).

The promises of development by the government of Bangladesh in the former enclaves were visible. The head of the government of Bangladesh has created a history by inaugurating 643 power connections to the residents of Dashiarchhara, the erstwhile largest enclave, alongside providing power connections to former enclaves in Nilphamari and Panchagarh districts and also distributed five solar home systems among the residents of Dashiarchhara after her speech. The enclave people are demanding that Bangladesh government would immediately solve their prevailing problems that they are passing now. Therefore, identification of present challenges of enclave people in Bangladesh and ways of overcoming the identified challenges would be a gigantic task to be performed by the government. Moreover, future directions to find out the way of ensuring their dignified life is very much important. In this regard, analysis of hopes and aspirations of enclave people in Bangladesh from the socio-anthropological perspective is very much crucial for taking appropriate policies.

2. Objective of the Study

The general objective of the study was to review status of enclave in Bangladesh and identify the strategies for ensuring their better or dignified life. The specific objectives of the study were to:

- i) review the historical perspective of enclave people in Bangladesh;
- ii) analyze the current status of enclave people as well as to develop guidelines of development to bring them in the main stream irrespective of gender identity; and

iii) Suggest recommendations for inclusive development in holistic ways.

3. Methods of the Study

Based on survey and Focus Group Discussion (FGD), data were collected in the Northern Districts of Bangladesh namely Panchagarh (3 areas), Lalmonirhat (5 areas), Nilphamari (1 area) and Kurigram (2 areas). Thus the study was carried out in eleven rural areas of Bangladesh in four Districts where ex-enclaves were situated. Overall, 550 former enclave people, each now citizens of Bangladesh, (previously Indian enclaves) were interviewed in the survey. Different government and nongovernment officials, key informants, participated in each FGD that included 5 to 12 people. From each area, nearly 50 households were randomly selected. Life of the people of enclave and life after exchange of enclave with new citizen identity were analyzed. Relevant news, features, journals and reports were reviewed. A structured questionnaire was followed to collect data from the respondents. Data were tabulated and put into graphs through using MS Excel. Oral history was documented from field level and review of literature.

The study areas can be seen in the table below:

District	Upazila	Union	Villages under ex- enclaves
Kurigram	Phulbari	Phulbari	Dashiarchora Kalirhat
	Bhurungamari	Shilkhuri	Choto Garaljora, Kalamati Chhit, Vhothat, Gopalpur (Uttar Chat)
Lalmonirhat	Sadar	Kulaghat	Bash PochaiVitorkuti
	Patgram	Jagatber	Khanpara, Jagatber
		Jongra	Mominpur
		Patgram (Sadar)	Ghonabari
Hatibandha	Gotamari	Gotamari, Uttar Gotamari	
Panchagar	Sadar	Hafizabad	Eiarpara, Pachimbagan Narayanpara, Purbabagan
	Boda	Kajal Dhighi Kaliganj	Najirgonj
	Deviganj	Deviganj	Okrabari Dhangapara, Panchayetpara
Nilphamari	Dimla	Gayabari	Pankhoribari (Santinagar)
		Tepa Khoribari	Nagar Jigabari

Source: Field work, 2017

BBS report was analyzed to select the survey area. In total, 550 Bangladeshi ex-enclave people were interviewed in the survey. Team members of the study and research investigators of BARD collected data from the field. Tabulators of the research team tabulated the data both manually and using Microsoft excel.

4. Summary of Study Findings

It is evident from the above discussion that the people of enclaves had undergone sufferings during their entire enclave life. After years of negotiation and peaceful demonstration of demands, the problem was solved successfully. It was indeed a historical achievement of the Bangladesh government to end the long awaiting plight of the people of enclaves. During their life in enclave they were devoid of facilities like education, health care, business, employment and so on as they did not have any citizen identity. People had to suffer a lot to avail these facilities. As soon as the problem of enclave was solved, new rays of hope emerged among the people of those areas. The inhabitants were given option to choose either Bangladesh or Indian citizenship. Almost all the inhabitants of enclave of Bangladesh located inside India had given their option for Bangladesh. It was seen in the study that 18% of the respondents opined to choose Bangladesh as they had the dream to get better working opportunity. It was observed in the study that in the former enclave areas several problems were prevailing. Among the problems, lack of proper infrastructure was seen prominent. Almost 24% of the interviewed respondents opined that they had poor infrastructure in their locality. Moreover, 16% of the respondents opined that they had poor health care facilities. Educational facilities were also seen not available during the enclave period. A 69.12% of the respondents mentioned that they did not continue schools as there was not much scope for study. In the enclave areas, the opportunities for occupation were not seen so prominent. About 30% of the respondents opined that they were engaged as day labourer in the enclave areas. Their dream for better job opportunities were not fulfilled. The inhabitants also needed better health facilities, 89.09% of the respondents opined that they faced serious injuries but they could not avail better health facilities. During the enclave period, the inhabitants did not get any support from government and NGOs as they were not entitled to any citizenship. But after they were given the citizenship of Bangladesh, they had the access to government services. Moreover, NGOs were also seen working in the study areas. The respondents also opined that they did not have any legal basis for demanding justice whenever any disputes arose in the areas. A 49.12% of the respondents opined that they solved any disputes with the help of village leaders. After the problems of enclave were solved, they had the legal basis for demanding justice for any disputes. As the inhabitants were entitled to citizenship, they expressed their hopes for betterment of their livelihood. Among the desires, training on different income generation trades was seen prominent. A 73.27% of the respondents mentioned that earlier, they did not receive any training on different trades. But after the entitlement to citizenship, the government of Bangladesh provided them with training on

different trades for income generation. Nearly 40% of the respondents mentioned that they received training on cattle rearing after they were entitled to citizenship of Bangladesh. It shows the willingness and commitment of the government to develop the former enclave areas, which long remained devoid of any development efforts. Therefore, the inhabitants expressed their demands for developing their areas through different government efforts. Following their demands, some recommendations were made in this study.

5. Recommendations

- ❖ For ensuring social development, project activities like CVDP, One House One Farm etc. can be extended to the former enclave areas. Village based organizations can be formed to promote local development. Moreover, farmers can be included in these organizations so that they can get easy access to agricultural markets and can get better price of their agricultural products.
- ❖ Initiatives for employment generation can be taken by the government. Need based training can be provided to rural youths, farmers and women on relevant trades so that they can start business enterprise of their own. Moreover, they can be given special credit/loan after finishing the training.
- ❖ Local level organizations like UP can be strengthened so that people can participate in democratic process. In this regard, special scheme can be taken to promote participatory development through UP in the former enclave areas.
- ❖ More government schools can be established in the areas so that children can easily get the opportunity to get education. Moreover, government health complex and hospitals can be set up so that the inhabitants can have easy access to medical facilities.
- ❖ Museums relating to livelihood of the people of former enclave can be established in the study areas. Following that, rural eco-tourism can be promoted in the former enclave areas.
- ❖ Entrepreneurship can be promoted through establishing local small industries. In this regard, banks can provide special schemes for the inhabitants of the study areas.

4. Reaping Demographic Dividends through ICT: A Case of FTFL Training

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Abstract

In order to harvest the advantages of demographic dividend, Bangladesh Computer Council undertook a project entitled Leveraging ICT (LICT) in order to build world class human resources to meet the demand of the IT/ITES Industry. As part of the project, a commendable number of youth were imparted training on the First Track Future Leaders, a component of the LICT Project, with a view to providing a package of skill training (both soft and core IT skills) among the youth people to prepare them as prospective future leaders for the IT/ITES industry. BARD was involved in organizing these training courses. This study basically aimed at: assessing the perception of trainees about utility of training course; identifying types of employment generated through the ICT training; examining the quality of employment generated in the ICT sector among the trained youth; and exploring the investment infrastructure in the ICT sector and finding out the prospect of ICT sector employment for comparatively low educated rural youth. The study was conducted following an online survey method, which was substantiated by content analysis and Focus Group Discussions (FGD). The sampled population was 131 which was drawn from two major tracts of training i.e. IT and ITES following scientific procedures. The findings revealed that the ICT industry has huge potential but due to lack of properly trained young graduates, they cannot enter into the IT market. There are some Technical and Vocational Education and Training (TVET) Institutions and Universities that are producing IT graduates but they fail to get a job in the IT market due to lack of required knowledge and skill because the TVET are following an outdated curriculum, lacking qualified teachers and practical orientation. The study findings suggest that the training course created equal opportunities for both male and female. The participants were highly satisfied with the training. The participants shared that some of the resource persons were related with the software company that helped them increase networking with the people of IT industry. To make the training more effective, the participants suggested forming homogeneous groups of trainees by separating experienced students from non-experienced students. Local resource persons who have idea about domestic IT industry should be involved more. The findings of the study reveal that there are lots of opportunities to involve rural youth in a planned way. Graduate students in Engineering field can be employed in Information Technology Services (ITS) especially in IOT (Internet of Things), Java, Web Development,

CCNA (Cisco Certified Network Associate), Robotics, App Development, Machine Learning etc. Students having graduation in any subject can be trained in Information Technology Enabled Services (ITES) such as Web Design, Networking, E-commerce, Database Management, Digital Marketing, Smart Executive/ Office executive, Graphics Design, BPO (Business Process Outsourcing), Basic Computer Literacy, Data Entry etc. Some students who have SSC can be involved in Hardware Maintenance. To get the benefits of the demographic dividend, both rural and urban youths should be imparted more and more IT related training.

1. Statement of the Issue

Bangladesh has been passing a shift of population structure since 2007 with 65 percent of population belonging to working age group whereas youth labour constitutes almost one third of the total labour force. Decline in fertility and mortality rate over the years has increased labor supply, and the benefit created through demographic dividend will remain upto 2050. This scenario has created an opportunity for Bangladesh to exploit their efforts into the economic growth. However, the major challenge remains with the high unemployment rate for the youth laour force especially for educated youth. Absence of link between skills formation in the educational institute and required skill in the labour market, changed work environment due to infusion of automation, development of artificial intelligence, advances in computer power and technology created challenge for the new entrants into the labour market to transform their potentiality into economic growth.

In this context, increased public and private investment on human capital and developing course contents considering the market demand is crucial for reaping demographic dividend. If the gap between supply and demand of labour force can be minimized, it would be helpful to harness the potentiality of demographic dividend. Changing composition and scenario in labor market through infusion of information technology has reduced the need of low skilled and clerical positions that has potential risk for employing youth population in a productive manner. In that context, technical and vocational training institutes and higher educational institutes including technical universities should take extra care to produce skilled people according to the demand of market. In this setting, Bangladesh Computer Council had launched a project namely Leveraging ICT (LICT) project to build world class human resources to meet the demand of the IT/ITES Industry through its three flagship initiatives. The First Track Future Leader (FTFL) as a youth talent development program, a component of LICT Project- is designed for finetuning the skills (both soft and core IT skills) among the youth people to prepare them as prospective future leaders for the IT/ITES industry. FTFL was

to provide a 3-month “Finishing School” style training program so that the graduates can become directly employable as “industry ready” resource.

All the selected candidates of the FTFL program got one-month residential training in Soft Skills, IT & IT Business Management core concepts. After completion of one-month residential training, the trainees got two months track specific specialized training. BARD was involved in providing one-month residential training for the participants of FTFL. Up to 2015, more than 387 young people got training on 11 different tracks at Bangladesh Academy for Rural Development and other specialised training institutes.

2. Objective of the Study

The general objective of the study was to assess the outcome of ICT training sponsored by LICT project and its contribution to gainful employment generation as a dummy variable for harnessing demographic dividend. The specific objectives of the study were to:

- i) assess the perception of trainees about utility of training course;
- ii) assess the types of employment generated through the ICT training;
- iii) examine the quality of employment generated in the ICT sector among the trained youth; and
- iv) explore the investment infrastructure in the ICT sector and find out the prospect of ICT sector employment for comparatively low educated rural youth.

3. Methods of the Study

The study was exploratory in nature. An analysis of the contents of training course was done to appraise the skill and knowledge induced as input in the training programme. Then one set of questionnaire was prepared for data collection from the trainees. Online questionnaire survey was done to collect information from the participants. A total of 367 participants were contacted for online survey out of 394 participants. Finally, 131 participants responded by filling online questionnaire. As a result, the sample size was 36 percent of the total participants. Among the respondents, 52 percent were from IT enabled service and rest 48 percent from the IT services. Besides, three (3) FGDs were organized with the trainees having 05 persons in each group to assess the potential areas of ICTs to employ rural youth having general education. SPSS was used for analyzing data. Simple statistics i.e. mean, percentage, proportion analysis were done for conducting the research.

Table 1.1: Sample Frame of the Study

Track of Training	No. of total participants	Number of Participants contacted for data collection	Actual number of the respondents respond
ITS	190	175	63
ITES	204	192	68
Total	394	367	131

4. Findings of the Study

- It was observed that there were a few TVET institutes and universities at higher education that produced IT graduates. On the contrary, TVET system in Bangladesh is disconnected from the formal job market. The system pursues outdated curriculum, lacks qualified teachers, and practical orientation and female participation in TVET is less due to lack of trades for female and location of most of the training institutions in urban areas.
- On the demand side, there is shortage of manpower in web development, technical writing, database administrator, IT research and development, IT marketing, programming, Business Analyst, solution and architect, project management, software quality testing, IT management and technical support. Deficiency of soft skills was found in case of time management, presentation skill, problem solving, team work, English proficiency, leadership quality, sense of responsibility, discipline, ethics etc.
- The IT industry employs 0.20 million people of which around one half are IT professionals. Each year, 06 to 10 thousand graduates are entering into the market. But due to lack of proper training and industry oriented education, most of the graduates do not suit to the need of IT industry. The ICT industry has huge potential to grow in the coming years but non availability of proper human resources may hinder its proper growth.
- Employment scenario of youth and potentiality of employment in ICT sector suggest that proportion of unemployed youth and proportion of youth outside NEET are the major challenges for reaping the benefit from demographic dividend. Indeed, IT professionals need to be motivated to acquire soft skills along with technical skills for harnessing the opportunity of market contributing to the national advancement.

- The study findings suggest that the training course created equal opportunities for both male and female. Data disaggregation with broader category of training suggests that more than two thirds of participants of IT service were graduated in engineering field. The mean age of ever using computer for the first time is 15 years for the trainees of IT Services and 16 years for IT enable services. Mean age for having personal computer for IT services trainees is 18 years in comparison to 19 years for the participants of IT enable services training.
- The participants ranked the quality of training as very good. They were more satisfied with the contents and speaker's quality but they mentioned that dependency on lecture could be reduced by adopting more interactive training methodology. Regarding perception on increasing knowledge and skill, the average score was calculated 3.5 out of 5 points that is equivalent to very good. The participants were more satisfied by increasing their self-confidence, improving knowledge and technical & communication skills. The participants also indicated that as some of the resource persons were related with the software company, it helped them increase networking with the people of IT industry. For increasing the effectiveness of the training, the participants suggested forming homogeneous groups of trainees by separating experienced students from non-experienced students. Local resource persons who have idea about domestic IT industry should be involved more.
- The data suggest that two thirds of the participants were absorbed in the IT industry either as permanently or temporarily. However, the share of permanent job holders was higher than the temporary job holders. Gender disggregate data suggest that unemployment rate among female participants is lower than the male participants and female's partipation in internship programme and temporary hired job is higher than their male couterparts. Discussion of FGD suggests that some of the female participants did not try to get absorbed in the job market after getting married. Some of the female participants prefered temporary job to balance their profesional role and role of household chores.
- Information on the persons who are employed permanently or temporarily revealed that more than two thirds were employed in the software development firm. The second highest sector of employment for the trained youth was marketing and e-commerce. Institutes related to education and training, financial and commercial sector and service sectors i.e. right based development organizations, organizations engaged in visa processing, system integration and maintenance are other employers for the trained participants. The average

monthly income of trained participants who were employed after training reveals that it varied from Tk. 20000 to 30000 and average amount of salary was Tk. 23000. Monthly salary was used as dummy variable for demographic dividend where permanent hired job, previous experiences, having degree from public university, English as a language used in the higher education explained 70.0% of the salary variances.

- The employed participants expressed their positive impression on physical environment of their work place and progression of their career goals. But some respondents were found moderately satisfied with their salary, incentives and job security. The findings of the study reveal that there are lots of opportunities to involve rural youth in a more planned way. Graduate Students in Engineering field can be employed in Information Technology Services (ITS) especially in IOT (Internet of Things), Java, Web Development, CCNA (Cisco Certified Network Associate) Robotics, App Development, Machine Learning etc. Students having graduation in any subject can be trained in Information Technology Enabled Services (ITES) such as Web Design, Networking, E-commerce, Database Management, Digital Marketing, Smart Executive/Office executive, Graphics Design, BPO (Business Process Outsourcing), Basic Computer Literacy, Data entry etc. Some students who have SSC can be involved in Hardware maintenance.

5. Recommendations

- ❖ The countries who reaped the benefit from demographic dividend took several policies related to introducing market economy and developing human capital of working labor force. Bangladesh also needs to take some policies for developing human capital of the working labour force especially considering the demand of youth in rural areas.
- ❖ Participants ranked the course very effective especially in terms of increasing communication skills and increasing confidence along with development of technical skills. Hence ICT training should focus on soft skills development along with technical skills development.
- ❖ For increasing the productivity of human resources in ICT sector, students should be encouraged to learn English and get firsthand knowledge by involving themselves in practical field of operation.
- ❖ Some topics related to machine learning, artificial intelligence (AI), agile software development, analytical ability, logic development, understanding algorithm., cyber security, data structure and algorithm, ethical hacking, cloud computing, ethical rather than business

oriented approach, building logical skills, data science, UX, Core Java, etc. can be included in the training course. Besides, the course could make room for more track specific classes and lab classes as well as extensive IT industries attachment.

- ❖ The participants of IT enabled service suggested inclusion of some topics related to freelancing, graphics, machine learning, industry-focused courses, challenges of an entrepreneur and how to overcome them, guidance requirements to become a successful entrepreneur, Trouble Shooting & Linux, Windox Setup Training, professional email writing, communicating with foreign clients, VAT and TAX, self-confidence building, Business Mathematics, Technical Documentation, facing interview, SQA automation testing, UX and Prototyping, Web Security & Ethical Hacking with much more scope for hands on learning.
- ❖ ICT would play a significant role in different sectors of the economy in near future. For adjusting with this new environment, there will be huge demand of people having working knowledge in ICT. Special training can be organized considering the background and need of rural people.

5. Title of the Study: Impact of COVID 19 Pandemic on Rural Livelihood

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Abstract

This study was undertaken in July 2020 to capture the immediate impact of the COVID-19 pandemic on rural livelihood and how the people tackled the immediate crisis. Following a mixed-method approach, the data collection took place in August and September 2020, surveying 332 rural households from three upazilas of Cumilla district. Many interesting findings have come up on the coping mechanisms. A comparative picture of the supports from the government, individuals, and non-government organizations has also been obtained. About rural people's resilience to such shocks, the study has found two crucial factors—individual's adaptability to the situation and support from the community. Strong social bonding of the rural people is their main asset. As a result, the pandemic could not cause too many losses at the micro-level as expected. However, students, particularly those in primary and secondary schools, have been the worst victims of the pandemic. If no serious policy and programmatic intervention are made, the nation may need to pay a lot in the future due to the losses in the academic life of the rural children during the last year.

1. Statement of the Issue

The Covid-19 Pandemic, popularly known as the 'corona virus', has severely affected countries across the globe. It was identified in the Wuhan province in China on 31 December 2019 and as of 25 March 2021, there have been 124,535,520 confirmed cases of COVID-19, including 2,738,876 deaths, in 219 Countries and Territories around the world (WHO, 2021). It has already shrunk the world economy drastically and is shaping the future of the world in an uncertain direction. Countries that were running fast with their growths have been shaken by serious shock. Millions of people have lost their jobs, businesses fell, and opportunities shrank. In Bangladesh, the first case of Covid-19 was confirmed on 8 March 2020, and until now, it has infected 584395 individuals with a number of 8797 death cases. With more than 3500 new cases every day, Bangladesh is now expecting the so-called second wave of the pandemic. Whereas the country was formulating all its development policies towards achieving SDGs by 2030, much of its policies have already been diverted to COVID-19 response. The government is trying its level best to support the sectors most affected. Special packages have been declared for the RMG sector; new social protection schemes have been budgeted for the victims; old programmes have been scaled up to

help the vulnerable people. Development partners and NGOs are also responding to tackle this crisis. Since the unfortunate latest development on COVID-19 is that, the world will have to live with this virus for many years, the impact of this pandemic is yet to be assessed. The country needs short as well as long term measures to cope up with this. The effects of COVID-19 on rural livelihood are undoubtedly different from that in urban areas, although they have strong linkages. Therefore it is worthy of knowing about the changes taking place in the rural livelihoods.

Many organizations have already conducted COVID-19 impact studies. However, a cursory view on them has revealed that these studies focused mainly on a single issue such as health, poverty, or agriculture. There is still a dearth of comprehensive studies encompassing multiple issues at a time. Research on rural livelihoods is one of the three major tasks of the Bangladesh Academy for Rural Development (BARD). In line with the government's policy drives towards COVID-19 response, this should also be a central concern for BARD for its research and action research. In the above context, this study has been proposed to assess the impact of Covid-19 on the life and livelihood of the various occupational groups in rural areas of Bangladesh.

2. Objectives of the Study

In general, the study captured the immediate impact of the Covid-19 Pandemic on the livelihood of the rural people as well as their coping mechanism with the situation.

3. The specific objectives of the study were:

To assess the impact of Covid-19 Pandemic on the household income of various occupational categories (i.e., farm and non-farm)

- a. To capture the changes in households' food and non-food consumptions following the spread of coronavirus and the pandemic (intra-household consumption pattern)
- b. To record the impact on children's education due to the COVID-19 pandemic situation
- c. To investigate the health-seeking behavior of the household members during the Covid-19 Pandemic (i.e., managing healthcare/changes etc)
- d. To evaluate the social impacts of COVID-19 pandemic concerning relationships etc
- e. To reveal the immediate, mid-term and long-term coping mechanisms adopted (or thought) by the rural people.

4. Study Methods

The research was carried out in three upazilas of Cumilla district, namely Sadar South, Barura, and Chandina. This study used both quantitative and qualitative approaches for the primary data collection. For quantitative data collection, a pretested structured questionnaire was used. For qualitative data collection, focus group discussions (FGDs) and key informant interviews (KII) were used.

Sample size was determined using the formula $N = z^2 \times p(1-p)/\epsilon^2$ (for unknown population). According to the formula, the estimated sample size, $n=318$ [where, $z=1.96$; $p=0.5$; $\epsilon=0.055$]. Multistage random sampling method was used to identify the sample households for the study. Considering the pandemic situation as well as time and resource limitations, the quantitative survey was conducted in six randomly selected villages of Sadar South, Barura and Chandina upazilas of Cumilla district. Five occupational groups were identified and total 332 samples were randomly selected from all the categories.

Table 1: Distribution of the sample households by major income categories and Upazilas

Categories	Agriculture	Business	Day Labour	Service	Expatriate	All
Sadar South	20	9	26	15	28	98
Barura	24	19	25	29	20	117
Chandina	19	32	16	29	21	117
Total	63	60	67	73	69	332

Six FGDs were conducted in three upazilas with the village people of various occupational groups. Two of the FGDs were conducted exclusively with female household members. A total number of 9-13 participants attended each of the FGD sessions. 10 Key Informant Interviews were conducted with following groups of people/stakeholders:

- Local Government Representatives
- Community Leaders (e.g., teachers, religious leaders)
- Upazila level officials of government departments providing health, education, social protection etc services (e.g., Upazila Health and Family Planning Officer, Upazila Education/Primary Education Officer, Upazila Social Services Officer etc)
- NGOs working in the health, education etc. sectors

Case studies of selected households/individuals were conducted to capture interesting cases, exemplary services etc related to the study objectives.

5. Summary of the Study Findings

Profile of the Respondents and Participants

- Slightly over 2% of the households were female-headed households, which is lower than the official rural rate (3.86%). About 58% of the household heads were below 40 years of age and an 18 per cent of them aged 60 years or above.
- More than a fifth of the household heads completed primary education. A 10 per cent of them have no literacy. More than 15 per cent of the household heads can sign their names only. A 14% of the household heads completed SSC or HSC. A 12% of them bachelor or masters degrees.
- The proportion of male-female population in the households was 52.9 and 47.1. The average household size (5.10) was larger than the national (rural) average 4.11. The majority of the households are relatively large in size. A 60% of them have 5-10 members.
- Over 66% of the household members are working-aged population. Therefore the total dependency ratio was 50.57.
- A 17% of the household members aged five years and above are either illiterate or can write their names only. A 28% of them have secondary and above levels of education. However, this varies across the occupational categories, by gender at different levels.
- The following are the major primary occupations of the members: student (26%), homemaker (24%), expatriate (9%), private sector salaried job 3%, farmer (including sharecropper) (5%).
- About 89% of the household members do not have any secondary occupation.
- 37% of the household have a single earning member, while 29% of the households have three or more earning members.
- More than half (56%) of the households own land less than 50 decimals.
- Half (50.3%) of the households do not have a television at their home, although 80% of them have smartphones.
- Almost all households have electricity connections and 71% of the households have internet accessibility (mostly cellular internet).
- Only 5.1% of the respondents consider themselves to be well off. A 43% perceive themselves to be middle-income, 37% low-income and 16%, extremely poor.

- Overall, more than a quarter (26.47%) of the household members have schooling between 1 and 5 years, a 22% have 6 to 9 years of education and 14% have education of secondary level (SSC/equivalent completed). About 8% of the household members are illiterate.

6. Impact of COVID-19 on Household Income and Resilience

- The average monthly household income during the year before the COVID-19 Pandemic ($M=17640.24$, $SD=7208.77$) and during the onset of the Pandemic ($M=6698.29$, $SD=3951.28$) indicated that household income decreased significantly, $t(6) = 2.66$, $p = .037$ (at 5% level of significance).

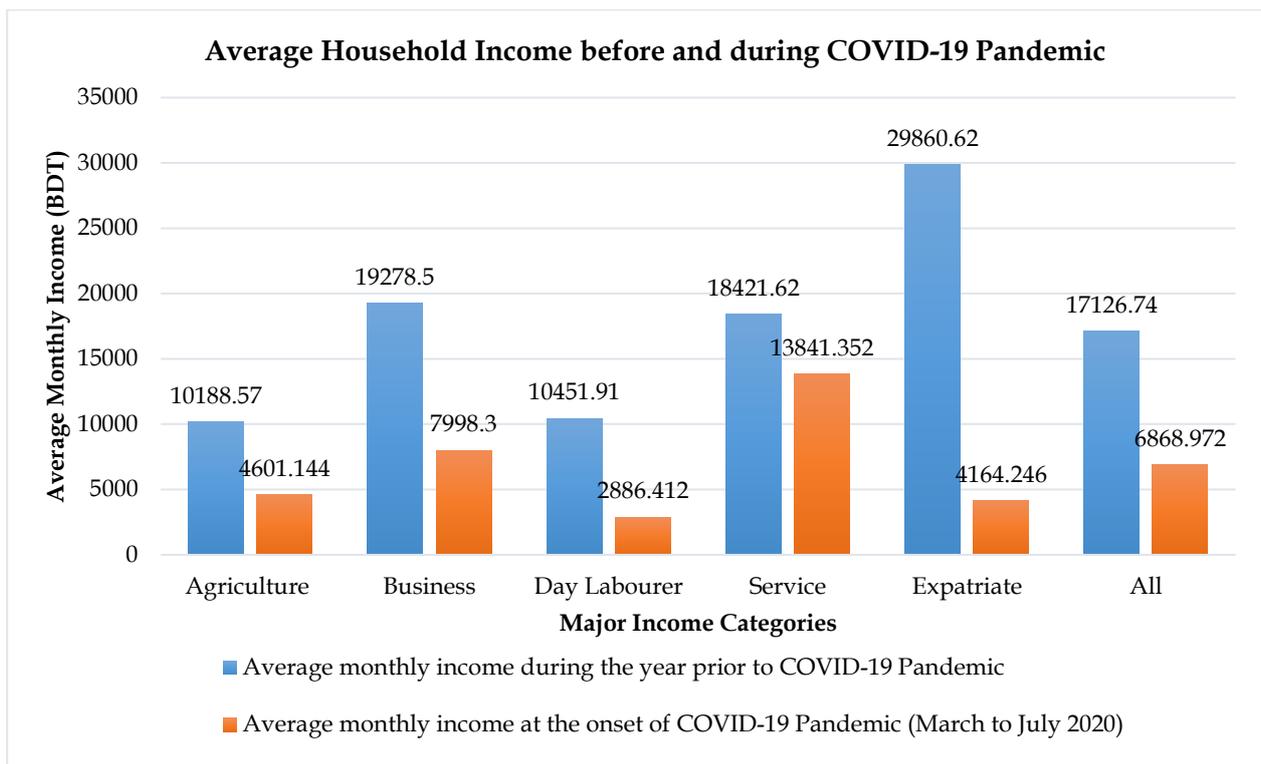


Fig. 1. Average household income before and during the COVID-19 pandemic by major income categories

- Approximately 60% of respondents claimed that the pandemic had reduced their household income (Table-2), which is consistent with public perceptions of the COVID-19 Pandemic's adverse effects on income and livelihood. The decrease in average monthly household income found highest in the expatriate households (86%), followed by 72% in the day-labourer households and the lowest 25% in the service households. The average daily amount of money (1.13 USD) earned by the day-labourer households during the pandemic was 40% less than the national extreme poverty income (1.9 USD/day).

Table 2: Difference between average monthly HH income before and after the onset of the COVID-19 crisis

Income Category	Average monthly HH income before the pandemic	Average monthly HH income during the pandemic	Income decreased (as percentage)
<i>Agriculture</i>	10188.57	4601.14	54.84
<i>Business</i>	19278.50	7998.30	58.51
<i>Day labourer</i>	10451.91	2886.41	72.38
<i>Service</i>	18421.62	13841.35	24.86
<i>Expatriate</i>	29860.62	4164.25	86.05
<i>Mean±SD</i>	17126.74±7208.77	6698.29±3951.28	59.33±20.46

- The majority of the respondents claimed their income from agricultural sources decreased due to the low price of crops or products, inadequate marketing facilities and scarcity of labourer for harvesting. Their responses are summarized in Fig. 2.

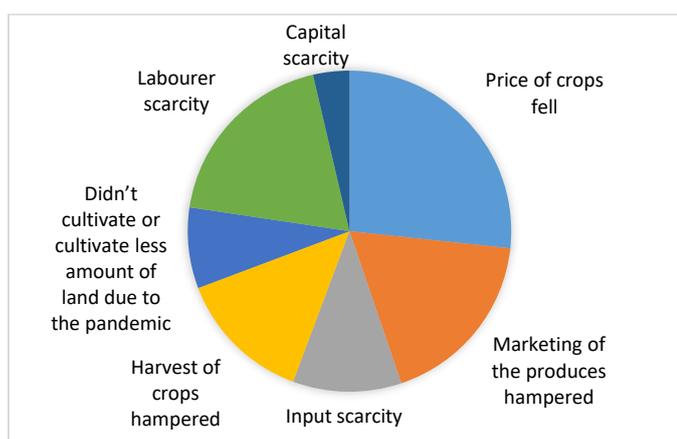


Fig. 2. Reasons for declining household income from non-agricultural sources.

- Furthermore, Table 3 presents the reasons for declining income from non-agricultural sources. Approximately 20% of the respondents found no or less remittance from abroad was accountable for declining household income. During COVID-19, about 16 percent of respondents reported no work or a lower wage rate, and 15% reported a partial or complete shutdown of businesses as reasons for lower household income.

Table 3: Reasons for declining monthly HH income from non-agricultural sources

Reasons for declining HH income from non-agricultural Sources	Frequency	Percentage
<i>There was no work on wage labour/wage rate declined</i>	71	16.36
<i>Loss of job</i>	21	4.84
<i>Salary reduced</i>	48	11.06
<i>Was no work/less work</i>	55	12.67
<i>Business hampered/decreased</i>	57	13.13

Reasons for declining HH income from non-agricultural Sources	Frequency	Percentage
<i>Business was shut</i>	67	15.44
<i>No/less remittance from abroad</i>	85	19.59
<i>Lack of capital</i>	10	2.30
<i>Not being able to work in other places due to the Pandemic</i>	9	2.07
<i>Got stranded after coming from abroad due to the Pandemic</i>	3	0.69
<i>Private service was shut</i>	6	1.38
<i>Could not sell milk because the sweet shop was closed</i>	1	0.23
<i>No income from Coaching/Private tuition</i>	1	0.23
Total	434	100

- The majority of the respondents, who experienced no change in their household income, worked as service holders in the government sector (35%) or doing a private fixed-job (13%). Moreover, 44% of the respondents found no impact on their agricultural income and consequently, their household income remained unchanged. (Fig. 3)

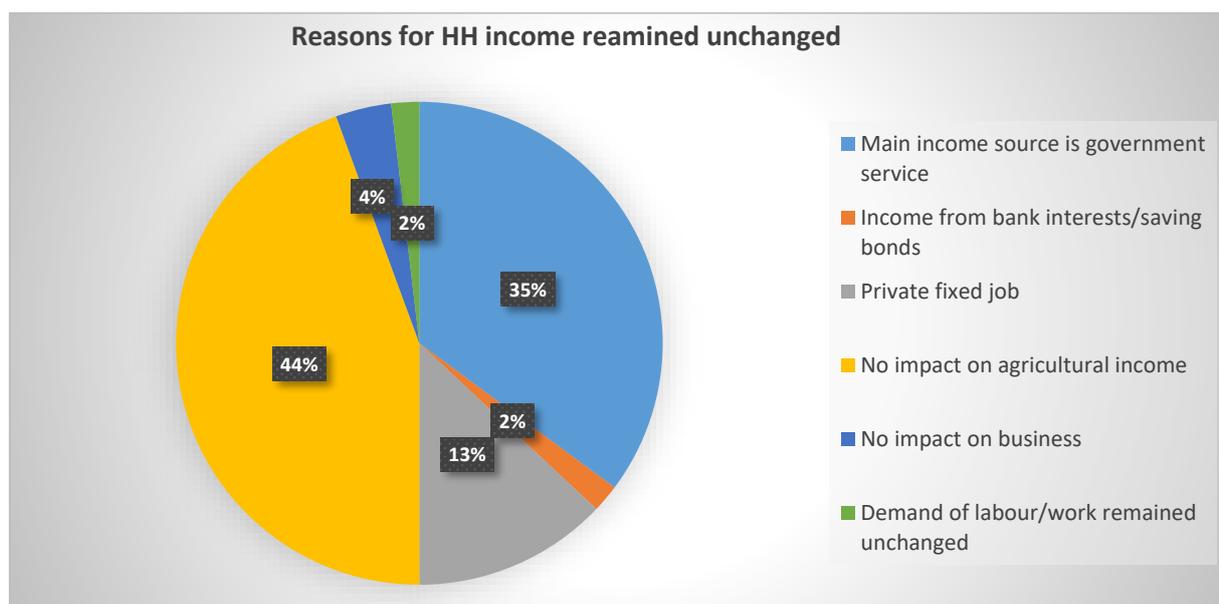


Fig. 3. Percentage distribution of the households by reasons for remaining household income unchanged during the pandemic.

Figure 4 (a to c) indicates the resilience by showing a moderate increase in income-generating activities over the lockdown period from March to July on agriculture, business, day-labourer and service households. However, The percentage of a total or temporal shutdown of expatriate work remained constant over time, as shown in Figure 4 (e).

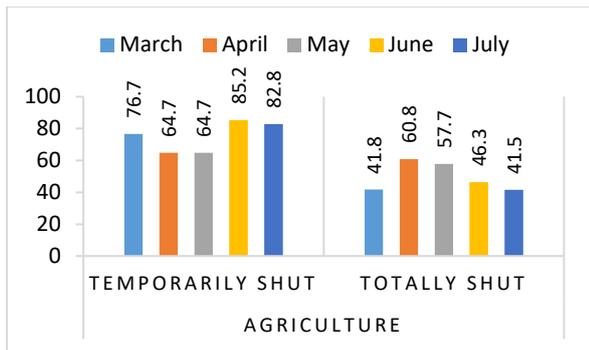


Fig. 4.a. Works related to agriculture remained shut totally or temporarily from March to July.

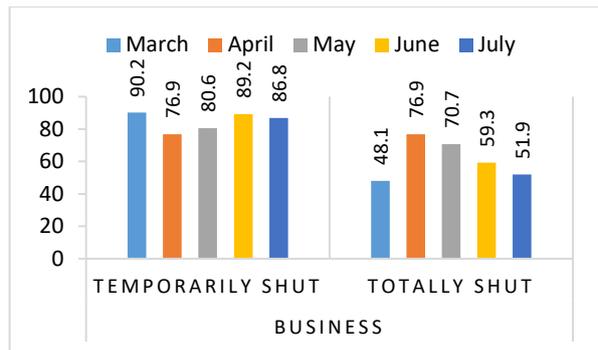


Fig. 4.b. Works related to business remained shut totally or temporarily from March to July.

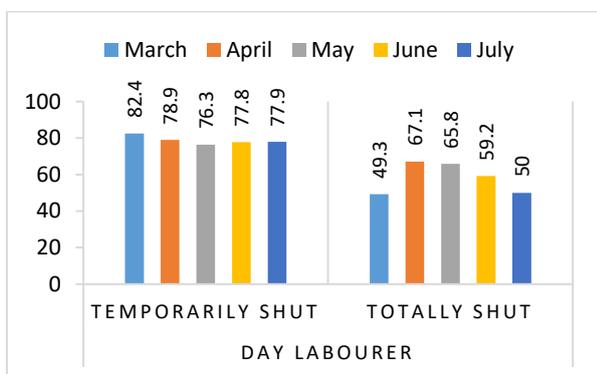


Fig. 4.c. Works related to day labourers remained shut totally or temporarily from March to July.

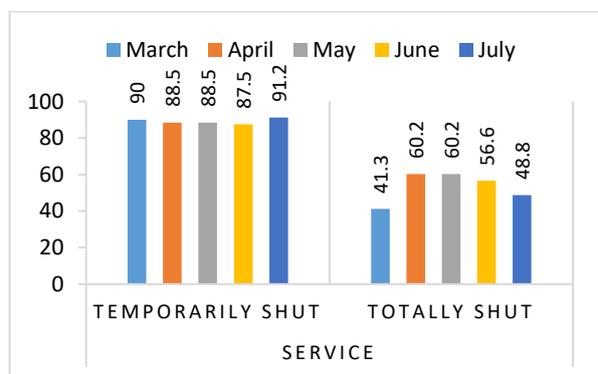


Fig. 4.d. Works related to service remained shut totally or temporarily from March to July.

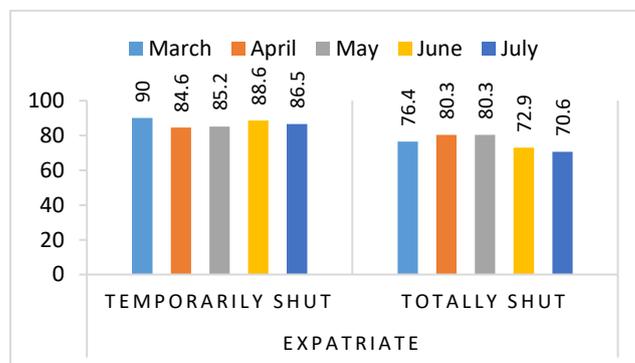


Fig. 4.e. Expatriate works remained shut totally or temporarily from March to July.

7. Food and Non-food Expenditures during COVID-19 Pandemic

- Since the outbreak of the COVID-19 pandemic, household food consumption has decreased by 70%, increased in only 4% of households, and remained unchanged in 26.2% of households.
- Household food consumption decreased due to a decrease in household income in the case of 97% of respondents, followed by price hikes of food commodities and fewer market visits (38.5% and 37.7%, respectively). On the other hand, food intake increased primarily in

service households due to improved diet consumption, increased household members, and household members stuck at home all day.

- The quality of food consumed by households decreased in 80% of cases, with selected food items such as beef/mutton, indigenous chicken, large fish (rohu, catla, hilsha) purchased primarily by service households and fewer by day labourer households.
- Household food expenditures decreased in 80% of the cases, increased in only 4.8% of the cases, and remained unchanged in 15.4% of the cases. On the other hand, non-food expenditure decreased in 72% of households, increased in only 15% of the cases, and remained unchanged in 13% of the cases.
- Non-food spending decreased due to a decrease in household income (92.1%), followed by transportation expenses (45.4%), travel costs (42.5%), purchasing fewer luxury items (28.8%), and children's education costs (33.3%).
- The cause of increased non-food spending is a 9.7% increase in treatment costs and a 10.7% increase in transportation costs, according to the survey.

8. COVID-19 and Education of Children

Types of Education institutes Students attend

- Students in the households attend as many as fifteen different types of education institutes from primary to tertiary levels. A one-fifth of them go to government primary schools (20.18%) followed by 16.45% in Non-government high schools. The next majority category is Qawmi/Hafizia Madrasa (15.13%). It is interesting to note that households whose chief wage earner is an expatriate have noticeably more children in Qawmi/Hafizia Madrasa compared to other household categories (28% versus 14%, 12%, 5%, and 17% respectively in service, day labour, business, and agriculture categories) (see Annex Table 501).
- A 9% of the students are in recognized tertiary education.

Children's Education during the Pandemic

- Over 90% of the education institutes were totally closed during the pandemic, even offering no online classes. Following closure in March 2020, almost 8% of the institutes started online classes in August. Madrasas did not have an arrangement of any online class. However, some of the madrasas reopened already.
- A very small portion of the students in the surveyed households attended/watched online/TV classes.

- In general, for 98% of the students in the households, their study hour declined due to the COVID-19 pandemic compared to a normal situation.
- For almost half of the students, study hour decreased by 1-2 hours a day. For another 40% of students, it declined by 3-4 hours. The situation was reported to worsen further for another 11% of the students whose study hour decreased by 5-6 hours. The average study hour decrease across the households is 2.77 hours.
- As per their measures taken regarding children's education since the closure of the schools due to COVID-19, 55% of households reported that they studied themselves following the closure of the schools, a 28% of the students got help from other family members in their studies. A 19% of the children continued studies with the help of private tutors or coaching centres.
- No measure was taken for one-third of the children to help them with their studies.
- Sixty-five percent of the households reported that their children lost interest in education. Another 40% said that the children forgot everything. A 25% of the households expressed that children are getting frustrated. A 22% of the children entirely gave up the habit of study. The households also reported adverse outcomes such as boys getting in touch with bad company, the possibility of dropout, and kids could not learn the basic alphabets.
- Although a small portion of the children attended/watched online or classes telecast on TV, most of them viewed the quality of the content to be average.
- A few students in the households got involved in income-generating activities due to the pandemic, and most of them got involved in agriculture, followed by a family business. Since children's education is getting seriously hampered, parents recommended that education institutes should open, if possible, maintaining social distancing. Some of the viewed that children's education needs to be facilitated through private tuition. Some parents also viewed that children should remain engaged in sports and gaining general knowledge. Demand was also there for special social protection initiatives for children.

9. Healthcare and Health-Seeking during COVID-19 Pandemic

- From March to July 2020, nearly three-quarters of the respondents (73%) reported illness in any household member.
- Fever was the most common major illness, with about 43% of the sick members suffering from it, accompanied by cough (18%), body pain (13%), and sore throat (8%).

- Just about a third (61%) of the ill respondents received medical care. 36.7% received healthcare from village doctors/paramedics (non-MBBS) and 29.26% went to the local pharmacy (non-doctor medicine retailer).
- Just 19.95% of sick respondents went to an MBBS doctor, with 5.85% and 3.72% attending Upazila or district level hospitals, respectively.
- Just 5.72% of households had childbirth cases, with 57.89% giving birth in a hospital or clinic and 42.11% giving birth at home.
- About 5.72% of the respondents were infected with COVID-19 (covid-19 positive). On doctor's advice, 40% of them received care at home.
- On the other hand, 14.46% and 1.51% of the respondents had mild and acute symptoms, respectively, but did not test. In 80% of the households, no one had COVID-19 symptoms. The majority (53.4%) of them received care at home.
- Vaccination was not a problem for most children during COVID-19, and 40.8% said they received vaccines at a government health centre or from a health visitor. On the contrary, 23.7% claimed that their children were supposed to get the vaccine but did not and 21.1% reported the vaccination program was delayed due to COVID-19.
- Only 4.2% of pregnant women's households said they did not get treatment regarding antenatal care (ANC) and postnatal care (PNC) at the Upazila health complex (UHC), while 29.2% said they did.
- For ANC and PNC, one-third of the respondents (33.3%) went to the village doctor, while 25% went to a private healthcare provider, and 16.7% went to trained midwives.

10. Social Interaction and Activities during COVID-19 Pandemic

- Nearly half of the respondents (49.1%) said they stayed at home to avoid being infected with COVID-19, and 91.3 percent said they wore a mask when going outside.
- Even though 49.7% of respondents said they washed their hands for at least 20 seconds with soap or handwash, only 31% said they maintained a social distance of at least 3 feet.
- In the case of household members, 48.49 percent said they followed the social distancing protocol, while 45.48 percent said they followed it for a while but then stopped.
- Compared to other occupational categories, wearing a mask and washing hands frequently were the lowest in-day labourer households (76.1 and 37.3%). On the other hand, business households found it difficult to stay at home and maintain social distance (36.7 percent and 26.7 percent, respectively).

- From March to July, 88.6% of respondents said no social or religious gatherings took place, though 8.7% reported religious gatherings and only 1.2 percent said wedding programs took place during that time. Though 14.2 percent said, the pandemic had significantly disrupted their visits to relatives.
- 55.72 percent of respondents said visiting neighbours had decreased significantly, followed by 21.69 percent who said it had decreased slightly, 18.98 percent said it had decreased at first but had returned to normal, and 3.61 percent said no change had occurred.
- Nearly half of the respondents (48.49 percent) said that the young family members' playing and hanging out had decreased significantly. In comparison, 24.4 percent said it had decreased slightly and 19.28 percent said it had decreased at first but had returned to normal.
- Religious observances were reported to have decreased by 45.48 percent at first but then returned to normal after a few days, while 28.31 percent and 17.47 percent said they had decreased significantly and slightly, respectively. In Muslim households, 37.27 percent of male family members did not miss Friday prayers, and 36.65 percent said they did not attend for the first few weeks but did so later. In non-Muslim households, 80% said they did not attend religious ceremonies (puja or similar events) and 20% said they did not miss such events.

7. COVID-19 and Public and Private Social Protection

- About 27 per cent of the surveyed households have access to at least one public social safety net programmes. This rate is almost similar to that of the latest national rate 27.8 per cent (HIES 2016) but lower than the rural rate (34.5%).
- By household category, day-labourer (39%) households have better access to social safety nets
- By upazila, households in Chandina have the highest rate of receipt of social safety net benefits (30.77%).
- By programmes, primary and secondary stipends programmes (62%) and disability allowance (11%) have the highest outreach. Food Friendly programme (7%), Old age allowance (7%) have similar outreach performance.
- Overall, about 22% of the surveyed households received their benefits under the social safety net programmes from March to July 2020

- During this time, the majority of the households got benefit from the stipend programmes (52%) followed by Gratuitous Relief (18%). By benefit kinds, 70% of them received cash and 30% received food assistance.
- It is interesting to note that almost no household received any assistance from any non-government organization from March to July 2020. However, about 11% of the households received assistance from individuals in the neighborhood. Individuals mainly helped with food assistance (83%) and cash (17%).
- Until July 2020, only about 2% of the households (6 out of 332) received the financial assistance of BDT 2500 under the special programme announced by the government.

8. Expatriate Members during COVID-19

Receipt of Remittance

- A 37% of the households having an expatriate member received money from abroad from March to July 2020. More than half of the households (54%) received money from the expatriate members 1-2 times during the period. A 25% of the households received money 5 or more times.
- During this five months period, 21% of the households received an amount between BDT 10,000 and 20,000, 33% of households received between BDT 20,000 and 40,000 and, another 21% received between BDT 40,000 and 70,000.

Reverse Migration, Reverse Remittance and Stranded Expatriates

- About 18% of the households (10 out of 56) whose chief wage earner is an expatriate had to send money to their members living abroad during this period. Most of them (70%) sent money to the expatriate members only one time, although some of them sent support from home several times.
- Only about 4% of the expatriate households reported force return from aboard due to the COVID-19 Pandemic from March to July 2020. Another 7% of the households reported that their expatriate members could not manage to return to the host countries due to the COVID-19 pandemic.
- A 13% of the households with expatriate members reported that their expatriate members were planning to return home due to the pandemic. Majority of these members were abroad for 2-3 years.

Coping strategies during COVID-19

Immediate Coping Mechanism

- Households depending on their income sources, took various types of measures to face the most difficult months. 66% of them had to spend from their savings to meet household expenses. About 42% of households borrowed from relatives. A 27% of them utilized their stock of rice, pulses and fish. A 10% of the households sold their livestock and poultry, a 6% borrowed from moneylenders/local people on interest, and another 6% borrowed from NGOs. Households also sold/mortgaged their jewelry or land to tackle the crisis.

Loan

- Overall, 52% of the households took loan from at least one formal or informal sources following the outbreak of the pandemic. By household categories, agrarian households (62%) tended to borrow more following the pandemic outbreak. Service category households comparatively borrowed least (40%).
- Although the households borrowed from various sources, interest-free loan from friends/relatives/neighbours was the major loan type during the pandemic. As many as 63% of the households got such loans. However, the next major source was traditional moneylenders (15%) who landed money on interest. NGO MFIs such as BRAC, ASA, and GB were the source 12.5 per cent of the borrowers together.
- The monthly rates of interests of the informer moneylenders (including local cooperatives) vary between 5% and 85%. However, almost one-fifth of the households who borrowed from such sources paid interest between 56-65 per cent.

Change of Occupation

- Over 5% of the households reported that their members had to change occupation to fight the COVID-19 pandemic crisis. Those who changed occupation mainly shifted from service to farming (20%), service to labourer (10%), and business to farming (10%).
- 7.5% of the household members who lost their salaried jobs due to COVID-19 Pandemic remained unemployed. A 3% were doing another job at a lower salary or started farming.

- A 68% of the household members who lost their businesses due to the pandemic were doing nothing following the closure of their business. Some of them were doing farming and a few of them started working as wage labourer.
- The day labourers whose income was affected due to the pandemic adopted different mechanisms to cope up with the situation. Over 41 per cent of them were doing the same work at a lower wage. However, 28% of such members were staying idle at home. One-fifth of them managed to do the same work but less frequently. Some of them (15%) started farming.

Tackling Crises in Agriculture

- In the initial days of the pandemic, agriculture also suffered due to scarcity of fertilizers, seeds, pesticides, labor etc. The main coping mechanism of the farmers was starting the farm works relatively later (57%). One-third of them said that they purchased agricultural inputs at higher prices. A 24% of them said that they reduced the amount of cultivable land. Farmers also suffered from the marketing of their agricultural products such as crops, fruits, vegetables, cattle, poultry, fish, etc. Over 81 per cent of the households with agricultural activities reported that they had to sell their products at a lower price due to transportation and marketing problems. A 20% of the respondents said that they stored their products to sell in the future.

9. Support Needed to Cope with the Situation

- When the survey was conducted (August 2020), 58 percent of the households said they need cash support to manage the crisis. However, more than a quarter of the respondents said they do not need any help. They can manage their livelihood once the pandemic is over. A fifth of the respondents demanded capital for business. A 17% of them said, if movement restrictions are withdrawn, they can manage the situation.
- If the government wants to help the households, interest-free loan is their main demand (67%). A 42% mentioned cash support for coping. Input (both farm and non-farm) supply free of cost was demanded by 14% of the respondents. An eleven percent demanded subsidy in agriculture and another 11% said they need support under public social protection schemes. Only 8% of the respondents said that they do not need any help from the government.

10. Recommendations

- ❖ **Income suffered, but the situation tackled:** The immediate impact of the pandemic was on the household income. The study reveals that overall, household income fell in 60% cases, with expatriate and day laborer households being the hardest hit throughout. This made the households reduce their food and non-food expenditures. Increased spending on treatment and transportation during the pandemic has resulted in a rise in non-food expenditure for some households. The quality of food also reduced significantly. However, income did not continue to worsen in the following months. A relatively low but stable income in the agriculture, business, day-laborer, and service households from May onwards indicate their good resilience. The expatriate households regained momentum in July.
- ❖ **Children (students) are the worst victim:** Despite the fact that the coronavirus, by nature, infects children less, children, who are in school, are the worst victim of the pandemic. The education institutes have been closed since March 2020. As of August 2020, the online/TV classes were available only in a tiny portion of the institutes. Although madrasas did not have any kind of online classes, a large majority of them (Qawmi madrasas) have been able to convince the government to reopen the madrasas. Children's study hour declined significantly. Consequently, they lost interest about education, forgot everything, got frustrated and started loitering around. For little kids who started school in 2020, could not even learn the basic alphabets. There is a high risk of increasing dropout in the near future which should be a concern of the relevant stakeholders. Even though there were some classes on TV/social media, more than half of the households not having a TV (70% of the day-laborer and 60% of the expatriate households) and 55% of the day-labourer households with no internet clearly concludes that such classes remained inaccessible to most of the children. Many of the households also do not have a member who studied at least up to secondary level. Therefore, a conclusion could be drawn that children in such households also did not have any member to help them with their study. Parents and teachers also revealed similar opinions during FGDs. Considering the situation, parents recommended (in September 2020) that education institutes should open, if possible, maintaining social distancing. The impact of the situation on children's psychology is also crucial. Many of them will find it hard to cope when the schools are open. Therefore, authorities related to education should think about the matter seriously and take effective measures.

- ❖ **Qualified Healthcare Service Providers were missing:** Households seemed to be more or less aware of the ways of getting infected by the virus. However, they were careless or unable (e.g., for those who are in businesses) to maintaining healthy practices. People tried to maintain social distance in the initial weeks but started visiting friends/family or arranging celebrations shortly. Despite the fact that nearly three-quarters of the respondents registered illness, with the majority of them suffering from multiple COVID-19 symptoms, only a quarter of the respondents received medical attention from qualified doctors or government hospitals. Following the outbreak of the COVID-19, rural people could not find qualified service providers (at least MBBS). As a result, they had to take treatment from medicine shops or village doctors/paramedics (RMP/LMAF). Shortage of qualified service providers or unwillingness to provide healthcare services to the deserving is a failure. The healthcare system should then be improved.
- ❖ **Support through Public Social Protection:** Following the pandemic, support from the government with social protection was mainly in three ways—initiating new programmes, scaling up old programmes and timeliness of benefit delivery. A number of new programmes were launched such as interest subsidy for small and cottage industries and service sector enterprises affected by coronavirus, refinancing scheme for low-income farmers/small traders, disbursement of cash among the targeted population to address corona risk (a total of 50 lac households to get tk. 2500 each). Some programmes under the Ministry of Disaster Management and Relief, Ministry of Food and Ministry of Health and Family Welfare were scaled up in terms of the number of beneficiaries as well as benefit kinds. However, benefits under the new programmes did not reach well to the surveyed households until August 2020. An appreciable initiative of some of the social protection programme implementing ministries/departments (e.g., MoE, MoPME, DSS, DDMR etc) was that they delivered the benefits at an earlier time than the official due time (e.g., Old Age Allowance in May 2020, although it was due in June/July 2020). Benefits under the other programmes reached in a usual manner and scale.
- ❖ **Enormous support from Individuals, less from NGOs:** Many individuals (relatives, friends, and neighbours) came forward with help for those in need in terms of both cash and kind. The most generous support was interest-free loan to the households in crisis. A 63% of the surveyed households obtaining such supports indicate high empathy of the rural people to

the relatives and neighbours. In a country with thousands of NGOs and MFIs, their support to the rural people beyond businesses was negligible.

- ❖ **The support they require to come back:** Although the households mentioned various types of support, a large number of them were confident in their own capability—they only needed a normal situation to manage their livelihood. Unfortunately, the 'normalization of the situation is still a far cry. Therefore, the government or any other agency can scale up their activities/interventions related to Input (both farm and non-farm) supply. Further subsidy in agriculture will also help many households since an additional number of people shifted to agriculture from other non-farm occupations. The required types of supports, as mentioned by the rural people, are not new. They are already in operation under various types of government departments and organizations. However, they need to be scaled up, or their conditions could be changed/relaxed considering the situation of the rural people. Initiatives should be backed up by good evidences and research and they should be well-designed so that the rural households can benefit sustainably.

6. Title of the Study: Impact of River Bank Erosion on Rural Society in Bangladesh

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Abstract

The geographical setting of Bangladesh and the characteristics of the tropical monsoon climate are greatly responsible for a variety of natural and human-induced disasters. Due to river erosion each year thousands of people who live near the bank line are dislocating and become destitute losing their house and household resources, agricultural land, standing crops, employment etc. The study, therefore, aimed to: (i) explore the extent and causes of river erosion of selected rivers; (ii) assess the socio-economic effect of riverbank erosion on the livelihood of vulnerable people; (iii) invent the resources damaged due to river erosion and interventions of different institutions; and (iv) identify the status of food intake, water, and sanitation of the study areas. Erosion prone three unions alongside the mighty rivers Padma, Meghna and Shandha were studied in this regard. The research was based on qualitative and quantitative approaches. Data were collected from both primary and secondary sources. In order to fulfill the objectives of the research, different methods and tools were used to get the views and opinions of the vulnerable and destitute people. Analysis of the collected information showed that meandering, riverbed siltation, poor drainage system, wave action and excessive rainfall are the main causes of bank line erosion and it brings miserable sufferings to the vulnerable people. The study also revealed that they lost house and household resources, employment, agricultural land, standing crops, growth centers and infrastructures at different degrees. Furthermore, the displaced people faced unstable and uncertain situation in terms of income, occupation, household resources, shelter and social dignity. Based on these problems some policy suggestions have been put forward to take immediate initiative to reduce the sufferings of the displaced and hard core poor people.

1. Statement of the Issues

Bangladesh is situated at the convergence of three mighty river basins-the Padma, the Brahmaputra and the Meghna. Deltaic sediments of Quaternary formation characterize most of the lands of Bangladesh. The natural setting of Bangladesh is between the Himalayas and the Bay of Bengal together with the prevalence of tropical monsoon climate. The catchment area of the major rivers is about 1.65 million square km of which only 7.5 percent lies within the border of Bangladesh (Sarker *et al.*, 2003) that generates 1200 km³ of run-off annually, only 10 percent of which is

generated within Bangladesh. In addition to vast quantities of water, these rivers carry about 1.1 billion tons of sediment every year (EGIS, 2000; Sarker *et al.*, 2003) and are responsible for the prevalence of flooding and riverbank erosion in Bangladesh (Elahi, 1991).

The sediments are washed down from three sides of the Basin, particularly from the Himalayas highlands, where the slopes are steeper and the rocks are less consolidated. Erosion plays an important role in the siltation process, and the water-holding capacity of rivers. The deterioration of the river system due to siltation is one of the causes of floods in Bangladesh. The river sediments are subjected to dynamic processes generated mainly by river flow, tide and wind actions. The ultimate result may be additional new land in some places due to accretion, and loss of land in some other places due to erosion. As a result of sedimentation, the formation of *chars* (islands) through accretion takes place. These undesirable *chars* in the river system threaten inland water navigation, cause erosion in the riverbanks and create other socio-economic problems for people due to land loss and displacement.

However, channel migration and severe bank line erosion have taken place almost every year that dispossesses the only livelihood option of thousands of families. In addition to these, severe flooding affects cropping patterns and destroys standing crops. The socio-economic impacts of flood in association with channel migration and bank erosion are sticking as the numbers of marginalized peoples are increasing day by day.

The degree of economic loss and vulnerability of population due to bank erosion has dramatically increased in recent years. The impact of land loss involves primarily the loss of homestead land, housing structures, crops, cattle, trees and household utensils. Loss of homesteads forces people to move to new places without any option and puts them in disastrous situation. About one million people are directly affected each year by bank erosion in the country.

2. Objectives of the Study

The specific objectives of this study were as follows:

- (i) To assess the socio-economic effects of river bank erosion on the livelihood of vulnerable people;
- (ii) To explore the extent and causes of river bank erosion of selected rivers;
- (iii) To assess the resources damaged due to river erosion and interventions of different institutions; and
- (iv) To identify the status of food intake, water and sanitation of the study areas.

3. Methods of the Study

The research was conducted at Kedarpur union of Naria Upazila, Char Ulgi union of Ramgoti Upazila and Syed Kathi union of Banaripara Upazila in Shariatpur, Laxmipur and Barishal district respectively. Among the affected households of these unions sample households have been selected purposively on the basis of focus group discussion with the local people. Through this process selected 600 households were interviewed taking 200 households from each of the union. Both primary and secondary data were collected in this regard. Primary data were collected through direct interview of the selected households, key informants interview, focus group discussions, case studies and from Institute of Remote Sensing of Jahangirnagar University.

In addition, secondary data were collected from different government departments at Upazila and district level along with officials of BWDB offices. Moreover, Secondary data were also gathered before going to the study area and literatures were consulted in library and internet. It includes books, journals, reports, important articles, thesis, related news/articles published in newspapers, related articles available in the websites. Besides, information regarding damaged resources had been collected from Upazila Project Implementation Officer's office and also from Upazila Nirbahi Officer. Upazila map and Mouza map were also collected to digitize map using Arc GIS 10.2. Data were processed through MS Excel and Arc GIS 10.2 software for analysis. Primary and secondary data were analyzed both quantitatively and qualitatively according to the nature of data. Finally the report has been prepared with sequential chapters where all gathered information and data have been presented in text, map, chart, table, bar diagram and other graphical forms.

4. Summary of Study Findings

4.1 Socio-Economic Profile of the Respondents

- The average size of the households of the study unions is larger than that of the national average household size which is 4.06 (HIES, 2016). Among the study areas, the largest average household size is 5.79 at Char Ulgi union. Furthermore, the average number of economically active population is the highest at Syed Kathi union (2.0) and the lowest at Char Ulgi union (1.53).
- In Kedarpur and Char Ulgi union, 4% respondents' occupation was agriculture in 2018 that is alarming for our economy, as agriculture is the dominant sector of our economy. However, occupation of a large number of respondents (33%) is fishing and the second largest occupation is business which is 25%.

- On an average, the annual income of about 13 percent respondents is under 50,000 BDT. Annual income of a large number of respondents (35%) is in the range of 50,001-1,00,001 BDT. More than 40 percent respondents of the study areas informed that their annual expenditure is in the range of 50,001-1,00,000 BDT and they are bound to spend extra money taking loan to fulfill their fundamental needs.

4.2 Agrarian Structure and Assets

- About 25% respondents of the study areas cultivate on their own land and more than 75% of them are cultivating on someone's land on different terms of agreements which vary from area to area and they cannot change their occupation due to lack of off-farm jobs and cash to start small business.
- Barga (share cropping) is a common and popular land agreement system which is highly practiced by the respondents of Syed Kathi union. Furthermore, lease is another popular land agreement method, which is more or less practiced at Kedarpur and Char Ulgi union.
- The average homebased and agricultural land of the respondents of the study areas have decreased just above five times in comparing to their fathers land due to allocation of land to the inheritors as well as land lost into the river.

4.3 Cropping Pattern and Cropping Intensity of the Study Areas

- Farmers of Syed Kathi union are cultivating rice 0.079 hectare land on an average and the production is well above that of other two areas (just under 0.025 hectare).
- Almost all lands are used for two crop cultivation in all the study areas where rice is the dominant crop in kharip-2 season and vegetables in kharip-1 season.
- In Syed Kathi and Kedarpur where the production rate of HYV is just over double in robi season rather than kharip-2 season due to changes of varieties and that is double than national production (2.9 ton/hectare) and there is no remarkable change at Char Ulgi union in this respect. In the circumstances of hybrid and local paddy, the production rate are considerably high (5.77 and 7.91 ton/hectare respectively) in robi season at Syed Kathi union rather than other two areas in kharip-2 season. Another remarkable scenario is seen at Syed Kathi where production rate is more than double per hectare land due to variation of season and varieties of paddy.
- Fruit and tuberous vegetables are cultivated in Kedarpur union, on the other land green leafy vegetables are highly cultivated in Char Ulgi union. But another remarkable scenario is

observed at Kedarpur union that the chili production is higher just over five times rather than Char Ulgi union.

- Excessive rain water, attack of rat and insects are the prime reasons to damage crops in all study areas. But the exceptional case is observed at Barishal which is saline water.

4.4 Causes and Extent of River Erosion and Losses of Resources

- Meandering, wave action, riverbed siltation and intense water from rainfall are prime factors for massive river erosion in the study areas. It is alarming that 1315.95 acres of land eroded at Kedarpur union which is the highest amount among the study areas between 1995 and 2019.
- A large number of people of the study areas are compelled to migrate with bag and baggage and become fully or partially unemployed. Moreover, most of them (55%) shift their accommodation within the village for their inheritance feelings and a few people migrate to the mega cities to ensure their basic needs as well as employment opportunity.
- More than fifty percent displaced people have faced river erosion directly for one to two times and have become destitute losing not only house but also enormous amount of resources.
- In the study areas, loss is widespread including losing standing crops and a serious unemployment problem arises, as they cannot change their occupation rapidly and drastically decreased their income which made them poorer.
- Among the study areas, Kedarpur is the most damaged area in terms of agricultural land, land of home, standing crops and infrastructures, because it lost more than double rather than other two areas.
- A miserable tragedy happened at Kedarpur because different types of infrastructures had eroded into the river that is also three times more than other areas. It is mentionable that an Upazila Health Complex near Mulfuthganj bazar collapsed in the Padma River.
- In Syed Katni Union, a Launch submerged and 28 passengers died near a bazar due to sudden bank erosion.
- Respondents of the study areas are unanimous regarding ranking the most risky sectors among which the highest one is house and household resource base, and the second highest one is employment.
- As the backbone of the respondent's livelihood mostly depend on economy, so they ranked economic sector as the most vulnerable in terms of river erosion.

4.5 Social Obstacles, Government and NGOs Support Services

- The displaced and destitute people face extreme psycho-social and psycho-physical sufferings in the newly shifted place as for example, they mostly felt downfall of social prestige and freedom as well as facing social harassments.
- In some cases, the displaced people do not send their school going children to school due to serious economic crisis, as they help them to regularize all the functions of their family.
- Above 50% displaced people did not get any goods as relief to fulfill their fundamental needs to survive and to adjust with the changing situation.
- About sixty percent destitute people who live near the bank line from their childhood do not fear river erosion and take necessary action to shift their house observing the situation at the eleventh hour.

4.6 Status of Food Intake, Water and Sanitation

- It is alarming for us that about nine percent displaced people in the study areas took only one meal in a day during disaster period though food is one of the important fundamental rights of human beings. Besides, about forty percent people took two meal in a day during disaster period.
- It is important that 75% people of Char Uigi Union are drinking deep tube well water.
- A 90 percent people of the study areas use ring slab latrine. However, till now 9 percent people of Char Ulgi union release their excreta in open place.

5. Recommendations

- ❖ Continuous river dredging programs throughout the river channel of Bangladesh from up stream to down stream and shifting the sediments far from the bank line so that it cannot hamper the river current.
- ❖ Construction of structural river embankment along both bank lines of the three mighty rivers with its tributaries should be ensured.
- ❖ Preparation of long term policy and programs as well as imparting training on awareness building and preparedness to face and cope with pre, during and post river erosion period for the vulnerable people to minimize the psycho-social mechanism and control population.
- ❖ Raising fund to help the displaced people until they comeback in a stable life.

- ❖ Ensuring education of the displaced children and occupation of the future displaced people providing income generation activities, technical and vocational training along with grant and interest free loan.
- ❖ Preparing medical teams who have empathy to provide psycho-physical therapy or motivation to children, adolescent and aged people.
- ❖ Ensuring resettlement place through pre-arrangement program for the displaced and destitute people for safe accommodation.

7. Title of the Study: কুড়িগ্রাম ও গোপালগঞ্জ জেলার দারিদ্র্যের স্বরূপ: প্রতিকার ও উন্নয়নে করণীয়

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জোনায়েদ রহিম, উপ পরিচালক, বার্ড

সার সংক্ষেপ

বাংলাদেশে বিগত ১০ বছরে দারিদ্র্যের হার প্রতিবছর শতকরা প্রায় দুইভাগ হারে কমেছে। পক্ষান্তরে দেশের কিছু এলাকায় দারিদ্র্যের হার বৃদ্ধি পাচ্ছে। বাংলাদেশ পরিসংখ্যান ব্যুরোর (বিবিএস) খানা জরিপের ভিত্তিতে বিশ্ব ব্যাংক কর্তৃক প্রকাশিত একটি প্রতিবেদন অনুযায়ী দেশের উত্তর বঙ্গে গরীব মানুষের সংখ্যা বাড়ছে। পাশাপাশি দেশের মধ্যাঞ্চলের কিছু কিছু এলাকা পরিবেশ ও প্রতিবেশ জনিত বিরূপ অবস্থায় থাকার কারণে সরকারী সেবা সহায়তা প্রদান করা সত্ত্বেও উল্লেখযোগ্য হারে দারিদ্র্য অবস্থা থেকে উন্নয়ন ঘটাতে পারছে না। গোপালগঞ্জ জেলা এর মধ্যে অন্যতম। দেশে সবচেয়ে গরীব মানুষ এখন কুড়িগ্রাম জেলায়। এই জেলার প্রতি ১০০ জনের মধ্যে ৭০ জনই গরীব। কেন কুড়িগ্রামে গরীব মানুষের সংখ্যা বৃদ্ধি পাচ্ছে এবং গোপালগঞ্জে দারিদ্র্যের হার আশানুরূপ কমেছে না তা জানার জন্য কুড়িগ্রাম জেলার সবচেয়ে দারিদ্র্য পীড়িত দুইটি উপজেলা যথা রৌমারী ও ভূরুঙ্গামারীতে এবং গোপালগঞ্জের দুটি উপজেলা কোটালীপাড়া ও টুঙ্গিপাড়ায় ২০১৯ সালে একটি গবেষণা পরিচালনা করা হয়। এ দুটি জেলার দারিদ্র্যের মূল কারণ হিসেবে চিহ্নিত হয়েছে নদী ভাঙ্গন, জলাবদ্ধতা এবং অন্যান্য আর্থ সামাজিক কারণে ভূমিহীন ও দরিদ্রের সংখ্যা বৃদ্ধি পাওয়া ও আয়ের বিকল্প উৎস না থাকা। প্রতিবছর বন্যা, ফসলহানি, শিক্ষা ও প্রশিক্ষণের অভাব, তাছাড়া মৌসুমী বেকারত্ব ও পরিবারের নির্ভরশীল সদস্য সংখ্যা বেশি হওয়ার কারণে দরিদ্রের সংখ্যা বৃদ্ধি পাচ্ছে। এ দুটি জেলার দারিদ্র্য নিরসনের জন্য বিশেষ উদ্যোগ নেয়া প্রয়োজন। কর্মসংস্থানের জন্য ক্ষুদ্র ও মাঝারী শিল্প স্থাপন, নদী ভাঙ্গন রোধ, বন্যা ও প্রাকৃতিক দুর্যোগ মোকাবেলার জন্য সরকারিভাবে বিশেষ উদ্যোগ নেয়া জরুরী। কারিগরি শিক্ষা ও প্রশিক্ষণের ওপর জোর দেয়া প্রয়োজন। অর্থনৈতিক কর্মকাণ্ডে দরিদ্র মানুষের অংশগ্রহণ বৃদ্ধির জন্য তফসিলি ব্যাংক ও পল্লী সঞ্চয় ব্যাংকের সাথে তাদেরকে যুক্ত করা হলে ইতিবাচক ফল আসতে পারে। সামাজিক নিরাপত্তা কর্মসূচির আওতায় এ দুটি জেলার জন্য বিশেষ বরাদ্দ প্রদান এবং সমন্বিত দারিদ্র্য বিমোচনের উদ্যোগ নেয়া প্রয়োজন।

১. গবেষণার পটভূমি

কৃষি প্রধান বাংলাদেশে দারিদ্র্য বিমোচন অন্যতম একটি আলোচ্য বিষয়। বিশেষ করে পল্লী অঞ্চলের দারিদ্র্য বিমোচনে অগ্রাধিকার দিয়ে সরকারি ও বেসরকারি পর্যায়ে বিভিন্ন পদক্ষেপ নেয়া হচ্ছে। বাংলাদেশ দারিদ্র্য বিমোচনে উল্লেখযোগ্য অবদান রাখলেও কিছু জেলার দারিদ্র্য পরিস্থিতি সম্প্রতি উদ্বেগজনক বলে প্রতীয়মান হয়েছে। বাংলাদেশ পরিসংখ্যান ব্যুরোর (বিবিএস) সর্বশেষ খানা আয় ও ব্যয় নির্ধারণ জরিপ ২০১৬ অনুযায়ী দেশের সবচেয়ে দারিদ্র্যপ্রবণ এলাকা হলো উত্তরবঙ্গ। গরীব মানুষের বসবাসের আধিক্য দেখা দিয়েছে রংপুর বিভাগে। দেশের প্রবৃদ্ধি ও মাথাপিছু আয় বাড়লেও দারিদ্র্য প্রবণতার কারণে দেশের অন্যান্য অঞ্চলের সাথে বিশেষ করে ঢাকা, চট্টগ্রাম ও সিলেটের সাথে রংপুর অঞ্চলের আয় ও বৈষম্য বেড়েছে উদ্বেগজনকভাবে। বিবিএস-২০১৬-এর জরিপ অনুযায়ী রংপুর অঞ্চলের কুড়িগ্রাম জেলা সবচেয়ে দারিদ্র্য পীড়িত এলাকা। এই জেলায় দারিদ্র্যের হার ৭০.৮% যা ২০১০ এ ছিল ৬৩.৭১%। সম্প্রতি দাতা সংস্থা বিশ্ব ব্যাংক বিবিএস-২০১৬ জরিপ বিশ্লেষণ করে একটি গবেষণা প্রতিবেদন তৈরি করেছে। এই গবেষণা প্রতিবেদনে উত্তরাঞ্চলের দারিদ্র্যের হার বেড়ে যাওয়ায় উদ্বেগ প্রকাশ করা হয়েছে। প্রতিবেদন অনুযায়ী যে প্রবৃদ্ধি হচ্ছে, তা গরীব পরিবারের আয় বৃদ্ধিতে সহায়ক হচ্ছে না এবং পর্যাপ্ত কর্মসংস্থানের ক্ষেত্রেও সহায়ক হচ্ছেনা (প্রথম আলো, ৩০ মে, ২০১৮)। এতে প্রতীয়মান হচ্ছে যে, কুড়িগ্রাম জেলায় দারিদ্র্যের হার গত কয়েক বছরে উদ্বেগজনকভাবে বেড়েছে। পাশাপাশি সরকারি বিভিন্ন উদ্যোগ ও সহায়তা প্রদান করা সত্ত্বেও দেশের মধ্যাঞ্চলের পরিবেশ ও প্রতিবেশ জনিত বিরূপতার কারণে দারিদ্র্য নিরসনে যথাযথ সাফল্য পাওয়া যাচ্ছে না। গোপালগঞ্জ জেলা এর মধ্যে উল্লেখযোগ্য। প্রথাগত সরকারি সাহায্য সহায়তা প্রদান করা সত্ত্বেও এলাকাটির দারিদ্র্য নিরসনের হার যথাযথ নয় বলে প্রতীয়মান। দারিদ্র্য পরিস্থিতির

कारणे स्वाभाविकভাবেई पल्ली एलाकार जनगण मूलिक चाहिदासमूह मेटाते पारहेना । एक्केतरे विभिन्न सेक्टर अनुयायी येमनः शिक्षा, चिकित्सा, खाद्य, कर्मसंस्थान इत्यादि क्केतरे विद्यमान समस्यासमूह चिह्ति करा प्रयोजन । अन्यदिके दारिद्र्यप्रबन एलाका थेके किछुटा भालो अवस्थाने आछे एमन एलाकारओ पर्यालोचना प्रयोजन रयेछे । एई गबेष्णार माध्यमे मूलतः ए सकल सेक्तेरे विद्यमान समस्यासमूह विश्लेषण करे दारिद्र्य परिस्थिति उन्नयने करणीय पदक्केप सम्पर्के आलोकपात करा हयेछे।

२. गबेष्णार उद्देश्य

गबेष्णारि मूल उद्देश्य हछे कुडिग्राम ओ गोलपालगञ्ज जेलार दारिद्र्य परिस्थिति ररूप विश्लेषण ओ उन्नयने लक्ष्य करणीयेर उपर आलोकपात करा । गबेष्णारि सुनिर्दिष्ट उद्देश्यसमूह हछेः

क. दरिद्रतार ररूप निरूपणे पल्ली एलाकार मानुषेर मतमत विश्लेषण;

ख. गबेष्णार एलाकार मानुषेर दारिद्र्य विमोचने सरकारि ओ बेसरकारि उद्देश्यसमूह विश्लेषण एबं

ग. विद्यमान सेक्तेरभित्तिक समस्यासमूह समाधाने सरकारि ओ बेसरकारि पर्याये सञ्भाव्य करणीय पदक्केप सुपारिश करा ।

३. गबेष्णार पद्धति

गबेष्णारि परिचालनाय तथ्य संग्रह, विश्लेषण पद्धति ओ कौशलसमूहेर मध्ये एकाधिक पद्धति ओ कौशल प्रयोग करा हय । गबेष्णाय गुणगत ओ परिमाणगत (Qualitative and Quantitative) उभय पद्धति ब्यवहार करा हय । गुणगत गबेष्णार पद्धतिर क्केतरे मारुपर्याये अंशग्रहण ओ निविड पर्यवेक्षण, साक्षात्कार, घटना अनुधान वा केस स्टोडि एबं पिआरए एर कयेकटि पद्धति (येमनः समस्या चिह्तिकरण, सरकारि/बेसरकारि सेवा प्राप्तिर प्रवाह) अनुसरण करा हय । ताछाडा, परिमाणगत गबेष्णार पद्धतिर क्केतरे प्राणु तथ्य विश्लेषण एबं ता उपस्थापन करा हय । गबेष्णार उद्देश्यसमूहके लक्ष्य करे तथ्य संग्रहेर जन्य प्रश्नपत्र तैरी करा हय । एछाडा जेला/उपजेला पर्यायेर कर्मकर्तारुदेर साथे Focus Group Discussion (FGD) परिचालना करा हय । गबेष्णार एलाका हते गबेष्णारकण एबं वार्डेर गबेष्णार विभागेर तथ्य संग्रहकारिगत तथ्य संग्रह करेहेन । तथ्य संग्रह परवर्ती विश्लेषणे एम एस एक्सेल सफटओय्यार ब्यवहार करे ग्राफ, पाई चार्ट ओ टेबिल प्रणयन करा हय । विभिन्न गौण उतंस (Secondary Sources) येमन, विविएस प्रतिबेदन, पत्रिकार प्रतिबेदन, विभिन्न गबेष्णार प्रतिबेदन, वई, जर्नल इत्यादि प्रकाशित उतंससमूह थेके ए गबेष्णार तथ्य संग्रह करा हय । प्राथमिक उतंस हिसेबे विभिन्न पर्यायेर उतंसदातारुदेर काछ थेके प्रश्नपत्रेर माध्यमे साक्षात्कार ग्रहण करा हय । कुडिग्राम जेलार भूरुङ्गामारी ओ रौमारी उपजेला ०४टि इडिनियनेर ०४टि ग्रामेर २०० जन उतंसदाता एबं गोलपालगञ्ज जेलार कोटालीपाडा ओ टुङ्गीपाडा उपजेला ०४टि इडिनियनेर ०४टि ग्राम थेके २०० जनसह मोट ४०० जन उतंसदातार निकट हते प्रश्नपत्रेर माध्यमे प्राथमिक तथ्यदि दैबचयन पद्धतिते संग्रह करा हयेछे । उल्लेख्य ये, दरिद्र ग्राम निर्वाचने उपजेला प्रशासनेर साथे आलोचना सापेक्के उद्देश्यमूलक पद्धति अनुसरण करा हयेछे । उतंसदातारुदेर मध्ये ग्रामवासि, स्थानीय जनप्रतिनिधि, स्थानीय गण्यमान्य ब्यक्ति, एनजिओ प्रतिनिधि, सरकारि विभिन्न संस्था कर्मकर्तारु ओ दारिद्र्य बिसयक बिसेशज्ञगण थेके प्राथमिक तथ्य संग्रह करा हय ।

४. गबेष्णार फलाफल

कुडिग्राम जेलार रौमारी ओ भूरुङ्गामारी उपजेलाय परिचालित जरिपटि करा हयेछिल उपजेला २ दुटि र सबचेये दारिद्र्यपीडित इडिनियने । दारिद्र्येर मूल कारण चिह्ति हयेछे नदी बाजन ओ अन्यान्य आर्थ-सामाजिक कारणे परिवारसमूहेर भूमिहीन हये पडा । कुडिग्राम जेलार उतंसदातारुदेर मध्ये उल्लेख्ययोग्य अंश (३४.५%) हछे भूमिहीन कृषि श्रमिक । पाशापाशि अकृषि मजूरओ उल्लेख्ययोग्य संख्यक उतंसदाता हिसेबे देखा गियेछे (१५.५%) । येहेतु ए अक्षरुटि प्रायशई बन्या एबं मूसुमी श्रमिक निर्भर ए कारणे उल्लिखित अंशेर मानुषेर पक्के

সারা বছর অর্থনৈতিক কর্মকাণ্ডের সাথে যুক্ত থাকা সম্ভব নয়। পাশাপাশি ভূরক্ষামারী ও রৌমারী উপজেলায় পরিবারের উপার্জনক্ষম লোক সংখ্যার শতকরা হার যথাক্রমে ৩৪.৮০% এবং ৩১%। ভূমিহীন হওয়া সত্ত্বেও তাঁরা প্রান্তিক কৃষি ব্যবস্থার সাথে সম্পর্কিত (ভূমিহীন ক্ষেত্র মজুর)। আয়ের অন্য ক্ষেত্র না থাকা, বন্যা, ফসলহানি, পাশাপাশি মৌসুমী বেকারত্ব ও পরিবারে নির্ভরশীল সদস্য সংখ্যা বেশি হওয়ার কারণে পরিবারসমূহ দারিদ্র্যপীড়িত।

উল্লেখযোগ্য উত্তরদাতা জনগোষ্ঠী (৪২.৫%) জানেন না যে দারিদ্র্য পরিস্থিতি মোকাবেলায় সরকারি/ব্যাক পর্যায় থেকে ঋণের ব্যবস্থা রয়েছে। পক্ষান্তরে বেশির ভাগ উত্তরদাতা পরিবারই কোন না কোন সময় এনজিও পরিচালিত ঋণ প্রবাহের সাথে সংশ্লিষ্ট। ৬১% উত্তরদাতা পরিবার কোন ধরনের সামাজিক নিরাপত্তা কর্মসূচির আওতায় আসেননি। প্রায় অর্ধেক উত্তরদাতা (৪৪%) উল্লেখ করেছেন যে, গত দুই বছরে কোন সরকারি সহায়তা গ্রহণ করেননি। যারা এই ধরনের সহায়তা গ্রহণ করেছেন সহায়তার ধরন হিসেবে সবচেয়ে বেশি উল্লেখ করা হয়েছে খাদ্য সহায়তা (৭৮.৫%) গ্রহণ। স্বল্প সংখ্যক উত্তরদাতা পরিবার (১২.৫%) আর্থিক সহায়তা গ্রহণ করেছেন। ঋণ ও সরকারি আর্থিক সহায়তা প্রাপ্তির ক্ষেত্রে সরকারি প্রতিষ্ঠানের তুলনায় সুফলভোগীগণ (৯৮%) এনজিও এর উপর বেশি মাত্রায় নির্ভরশীল। সরকারি প্রতিষ্ঠানগুলোর সেবা সহায়তা প্রাপ্তিতে দেখা যাচ্ছে যে, উপজেলা পর্যায়ের জাতিগঠনমূলক যে সকল বিভাগ রয়েছে সেগুলো থেকে স্বল্প সংখ্যক উত্তরদাতা সেবা সহায়তা পেয়ে থাকেন। পক্ষান্তরে স্থানীয় সরকার প্রতিষ্ঠান হিসেবে ইউনিয়ন পরিষদের সাথে উত্তরদাতা পরিবারগুলো অনেক বেশি সংযুক্ত। উত্তরদাতাগণ মনে করেন যে সামাজিক নিরাপত্তা কর্মসূচির বেশির ভাগ সহায়তা ইউনিয়ন পরিষদ থেকে প্রদান করা হয়ে থাকে। বেশির ভাগ উত্তরদাতা (৯৭%) মনে করেছেন যে, বর্তমানে সরকার দারিদ্র্য বিমোচনে যে সকল কর্মসূচি গ্রহণ করেছে তা দিয়ে দারিদ্র্য বিমোচন করা সম্ভব নয়। উত্তরদাতাগণের একটি উল্লেখযোগ্য অংশ মনে করছেন যে, সরকারি পর্যায়ে যে বরাদ্দ প্রদান করছে তা চাহিদার তুলনায় কম। পাশাপাশি বরাদ্দ প্রাপ্তিতে অসচ্ছতা, স্বজনপ্রীতি ও দলীয় সম্পৃক্তিকে প্রাধান্য দেয়ার কারণে মূল হত:দরিদ্র জনগোষ্ঠীর একটি বৃহৎ অংশ এ সুবিধার বাইরে থেকে যাচ্ছেন। সরকারি কর্মসূচিসমূহ অঞ্চলভিত্তিক সমস্যার সাথে সম্পৃক্ত করে পূরণ না করার কারণে এই সকল সেবা সমূহ কার্যকারীভাবে দারিদ্র্য বিমোচনে যথাযথ অবদান রাখতে সক্ষম হচ্ছে না। সরকারি ব্যবস্থাপনায় কর্মসংস্থান সৃষ্ণের জন্য আরো বেশি কার্যকরী উদ্যোগ গ্রহণ করার দরকার বলে মনে করেছেন উত্তরদাতা পরিবারসমূহ। সরকারি ব্যাক/আর্থিক প্রতিষ্ঠান অভিজ্ঞতা প্রবণতা কম থাকা এবং এনজিওসমূহের ব্যাপক ঋণ সহায়তা প্রদান সত্ত্বেও উত্তরদাতা পরিবারসমূহের উল্লেখযোগ্য অংশ (৭৬%) এখনও মহাজন ব্যক্তি খাত থেকে ঋণ গ্রহণ করছেন। এ ব্যবস্থাপনায় সুদের হার অস্বাভাবিক ভাবে বেশি (৪০%-৬০%)। এতে প্রতীয়মান যে, গ্রামীণ সমাজে মহাজনী/ব্যক্তিঋণের উপর নির্ভরশীলতা এখনও অনেক বেশি।

গবেষণার অন্য এলাকা হচ্ছে গোপালগঞ্জ জেলার দুটি উপজেলা কোটালীপাড়া ও টুঙ্গীপাড়া। দারিদ্র্যের পরিমাপে এ জেলা কুড়িগ্রাম জেলা থেকে উন্নত এবং দেশের সবচেয়ে দরিদ্রপ্রবণ ১০টি জেলার মধ্যে নয়। এ জেলার দরিদ্রতার প্রধান প্রধান কারণ হচ্ছে: অধিকাংশ জমি নিচু এলাকা হওয়ায় বছরের বেশিরভাগ সময় জমিতে পানি থাকে; ফলে বছরে একটি মাত্র ফসল উৎপাদন হয়। এলাকায় ৭২% মানুষ সরাসরি কৃষির সাথে জড়িত। কৃষক ফসলের ন্যায্য মূল পায় না, এলাকায় শিল্প কারখানা না থাকায় কর্মসংস্থানের সুযোগ খুবই অপ্রতুল। নিয়মিত কাজ থাকে না। ৭২% উত্তরদাতা বলেছেন মাসে ১০ থেকে ২০ দিন কোন কাজ থাকে না। শিক্ষা ও প্রশিক্ষণের অভাব এবং আধুনিক প্রযুক্তির প্রয়োগের অভাব এই জেলার দারিদ্র্যের মূল কারণ হিসেবে চিহ্নিত হয়েছে। এলাকার ৫০ ভাগ মানুষ সামাজিক নিরাপত্তা কর্মসূচির আওতায় রয়েছে।

গোপালগঞ্জ জেলার উত্তরদাতাদের মধ্যে প্রায় ৫০ভাগ (৪৯.৫%) কোন না কোন সামাজিক নিরাপত্তামূলক কর্মসূচির আওতায় রয়েছে। এর মধ্যে টুঙ্গীপাড়া উপজেলায় বেশি সংখ্যক উত্তরদাতা (৭০%) এ কর্মসূচির আওতায় রয়েছে। অন্যদিকে কোটালীপাড়ায় মাত্র ২৯ জন উত্তরদাতা এ কর্মসূচির আওতাভুক্ত। উত্তরদাতাগণ ০৮টি কর্মসূচির মাধ্যমে বিভিন্ন ধরনের ভাতা পেয়ে থাকেন। এগুলো হচ্ছেঃ বয়স্কভাতা,

ঈদ বোনাস (চাল), বিধবা ভাতা, ভিজিডি কার্ড, ১০ টাকা কেজি দরে চাল, প্রতিবন্ধী ভাতা, স্বামী পরিত্যক্ত ভাতা ও এককালীন নগদ আর্থিক সহায়তা। এর মধ্যে ৩৫ ভাগ উত্তরদাতা বলেছেন ঈদ বোনাস পান। শতকরা ২০ ভাগ উত্তরদাতা ১০ টাকা কেজি দরে চাল পান এবং ১৯ ভাগ উত্তরদাতা বলেছেন বয়স্কভাতা পান। গোপালগঞ্জ জেলার ৪০% উত্তরদাতা বলেছেন, দারিদ্র্য নিরসনে সামাজিক নিরাপত্তা কর্মসূচির ভূমিকা খুবই কম। শতকরা ৩৮% উত্তরদাতা বলেছেন কর্মসূচি সহায়তা গরীবরা পায় না। ২৩% উত্তরদাতা বলেছেন বন্টনের ক্ষেত্রে স্বজনপ্রীতি হয়। অপরদিকে ১৯% উত্তরদাতা বলেছেন, এ কর্মসূচি দারিদ্র্য নিরসনে খুব ভালো ভূমিকা রেখেছে। ১৭% উত্তরদাতা বলেছেন মোটামুটি ভূমিকা রাখছে। ভাতার পরিমাণ বাড়ানোর দরকার বলেছেন ১৯% উত্তরদাতা, ১১% উত্তরদাতা বলেছেন দুর্নীতির কারণে গরীবরা সুফল পাচ্ছে না। দশ ভাগ উত্তরদাতা বলেছেন বরাদ্দ কম। নয় ভাগ উত্তরদাতা বলেছেন ভাতাভোগী সঠিকভাবে নির্বাচন করা হয় না। এছাড়া কিছু উত্তরদাতা আরও কিছু সমস্যা তুলে ধরেছেন। এর মধ্যে চাহিদার তুলনায় ভাতা কম, সুষম বন্টন হয় না, প্রতিমাসে দেয়া হয় না, শিক্ষা সংক্রান্ত কর্মসূচি কম, প্রচার কম ইত্যাদির কথা বলেছেন। দারিদ্র্য বিমোচনে এনজিওদের বিভিন্ন কর্মসূচি রয়েছে। অধিকাংশ উত্তরদাতা (৭২%) ঋণ কর্মসূচির কথা উল্লেখ করেছেন। বাংলাদেশের অধিকাংশ এনজিওর প্রধান কর্মসূচি হচ্ছে ক্ষুদ্র ঋণ। প্রশিক্ষণের কথা বলেছেন ৫ ভাগ উত্তরদাতা। আর অনুদানের কথা বলেছেন ৩ ভাগ উত্তরদাতা। একজন করে উত্তরদাতা শিক্ষা ও পানি সরবরাহের কথা বলেছেন। ফলে দেখা যাচ্ছে বর্তমানে এনজিওগুলো তাদের কার্যক্রম ক্ষুদ্র ঋণকে ঘিরে পরিচালিত হচ্ছে।

গোপালগঞ্জ জেলার অধিকাংশ উত্তরদাতা এনজিও থেকে ঋণ গ্রহণ করে থাকে। উত্তরদাতাদের মধ্যে দুই তৃতীয়াংশ ঋণ নেন। মাত্র এক তৃতীয়াংশ উত্তরদাতা এনজিও থেকে ঋণ নেন না। পল্লী কর্ম সহায়ক ফাউন্ডেশন (পিকেএসএফ) দেশের এনজিওদেরকে শতকরা ৪ থেকে ৬ ভাগ সুদে ঋণ দিয়ে থাকে। এনজিওগুলো তাদের সদস্যদেরকে শতকরা ১০ থেকে ২০ ভাগ সুদে ঋণ দিয়ে থাকে। কোন কোন এনজিওর ঋণের সুদের হার ২৫ থেকে ৩০ ভাগ পর্যন্ত হয়। সকল উত্তর দাতা বলেছেন এনজিওগুলো ১০ হাজার থেকে ৩০/৪০ হাজার টাকা পর্যন্ত ঋণ দিয়ে থাকে। তবে সুদের হার সম্পর্কে বিভিন্ন উত্তরদাতা বিভিন্ন তথ্য দিয়েছেন। মাত্র একজন উত্তরদাতা বলেছেন শতকরা ৯ ভাগ হারে সুদ নেয়া হয়। প্রায় ৪৪ ভাগ উত্তরদাতা বলেছেন সুদের হার শতকরা ১৬ ভাগের উর্ধে। উত্তরদাতাদের মধ্যে ১৪ ভাগ বলেছেন সুদের হার ১৫ ভাগ। প্রায় ১৭ ভাগ বলেছেন সুদের হার ১০%। তবে বিভিন্ন এনজিও ১০-২০ ভাগ হারে সুদ নিয়ে থাকেন।

গোপালগঞ্জ জেলার উত্তরদাতাগণ ১৭টি ক্ষেত্রে ঋণের টাকা ব্যবহার করেন বলে উল্লেখ করেছেন। এর মধ্যে সবচেয়ে বেশি শতকরা ২০% উল্লেখ করেছেন তাঁরা ঋণের টাকা চাষাবাদে খরচ করেন। ১৮ভাগ উত্তরদাতা ঋণের টাকা দিয়ে সাংসারিক খরচ মেটান। গরু ক্রয় করেছেন ১৩ ভাগ উত্তরদাতা, ব্যবসায় বিনিয়োগ করেছেন ১১ ভাগ উত্তরদাতা, ঘর তৈরি ও মেরামত এর কাজে ১০ ভাগ উত্তরদাতা, ঋণ নিয়ে ঋণ পরিশোধ করেছেন ১০ ভাগ উত্তরদাতা, জমি বন্ধক ও জমি ক্রয় করেছেন ১৪ ভাগ উত্তরদাতা, ভ্যান, রিক্সা ও অটো ক্রয় করেছেন ৮ ভাগ উত্তরদাতা, চিকিৎসা খরচ মেটানো বলেছেন ৮ ভাগ এবং সন্তানদের লেখাপড়ার খরচ মেটাচ্ছেন ৫ ভাগ উত্তরদাতা। গবেষণার উপাত্ত বিশ্লেষণ করলে সবচেয়ে শংকার বিষয় হচ্ছে ঋণ নিয়ে ঋণ পরিশোধ করেছেন যে ১০ ভাগ উত্তরদাতা তারা ঋণের জাল থেকে বের হতে পারবেন না। তাছাড়া সাংসারিক খরচ, লেখাপড়ার খরচ, চিকিৎসা খরচ, ঘর মেরামত ও বিয়ের খরচ- এ সকলক্ষেত্রে মোট ৪৬% উত্তরদাতা ঋণের টাকা খরচ করেন। এসকল উত্তরদাতার অন্য কোন আয় নাই বিধায় এই ঋণের টাকা পরিশোধ করতে তাদের সম্পদ বিক্রয় অথবা গ্রাম ছেড়ে পালিয়ে যাওয়ার মত পরিস্থিতির উদ্ভব হয়েছে বলে গবেষণায় দেখা গিয়েছে।

গোপালগঞ্জ জেলার সেবা প্রদানের ক্ষেত্রে উত্তরদাতাগণ ১৭টি বিষয় চিহ্নিত করেছেন। এর মধ্যে সবচেয়ে বেশি উত্তরদাতা (৬৬ ভাগ) বলেছেন প্রধান প্রতিবন্ধকতা হচ্ছে স্বজন প্রীতি। আর সরকারি অফিসে ঘুষ দিতে হয় বলেছেন ৩২ ভাগ উত্তরদাতা, সেবা সম্পর্কে প্রচার কম বলেছেন ১৩ ভাগ উত্তরদাতা। তাছাড়া, পক্ষপাতিত্ব, দুর্নীতি, আত্মসাৎ, দলীয় প্রভাব, ন্যায় বিচারের অভাব, সুষম বন্টন, কম বরাদ্দ ইত্যাদি প্রতিবন্ধকতা রয়েছে।

গোপালগঞ্জ জেলার অধিকাংশ উত্তরদাতা (শতকরা ৮৮%) বলেছেন চলমান সরকারি-বেসরকারি কর্মসূচির মাধ্যমে দারিদ্র্য নিরসন সম্ভব নয়। মাত্র ১২% উত্তরদাতা বলেছেন সম্ভব। তবে সম্ভব না হলে কি কি উদ্যোগ নেয়া প্রয়োজন। এ বিষয়ে জানতে চাওয়া হলে উত্তরদাতাগণ ১৮টি বিষয়ের কথা উল্লেখ করেছেন। উত্তরদাতাদের মধ্যে সবচেয়ে বেশি ৩৬% উত্তরদাতা বলেছেন কর্মসংস্থানের ব্যবস্থা করা দরকার। এরপর ৩২% উত্তরদাতা বলেছেন প্রশিক্ষণের কথা, অপরদিকে ভাতার পরিমাণ বৃদ্ধির কথা বলেছেন ২৭% উত্তরদাতা এবং ভাতাভোগীদের সংখ্যা বৃদ্ধি করতে বলেছেন ২৭% উত্তরদাতা, সুসম বন্টনের কথা বলেছেন ২৬% উত্তরদাতা, গ্রামে শিল্প প্রতিষ্ঠান স্থাপনের কথা বলেছেন ২২% উত্তরদাতা, সঠিকভাবে ভাতাভোগী নির্বাচন করার কথা বলেছেন ১৯% উত্তরদাতা, অপরদিকে বরাদ্দ বাড়ানোর কথা বলেছেন ১৯% উত্তরদাতা। তাছাড়া কম বা বিনা সুদে ঋণ প্রদান, দারিদ্র্য বিমোচনের কর্মসূচির বৃদ্ধি করা, দুর্নীতি বন্ধ করা, তদারকী বাড়ানো, জবাবদিহিতা বৃদ্ধি করা, জনসচেতনতা বৃদ্ধি ইত্যাদি বিষয় উল্লেখ করেছেন। গোপালগঞ্জ জেলার ১০০% উত্তরদাতাই দারিদ্র্য নিরসনে প্রশিক্ষণের গুরুত্বের কথা উল্লেখ করেছেন। ফলে গ্রামীণ দরিদ্র মানুষের উন্নয়নের জন্য প্রশিক্ষণের কোন বিকল্প নেই। তাদের নিকট জানতে চাওয়া হয় কি ধরনের প্রশিক্ষণের প্রয়োজন, কি ধরনের প্রশিক্ষণের দেয়া হলে দারিদ্র্য বিমোচন সম্ভব। উত্তরদাতাবৃন্দ ১৫ ধরনের প্রশিক্ষণের কথা উল্লেখ করেছেন। এর মধ্যে সবচেয়ে বেশি ৪৮% উত্তরদাতা বলেছেন গবাদি পশু পালনের উপর প্রশিক্ষণের কথা, ৪৫% উত্তরদাতা বলেছেন সেলাই প্রশিক্ষণের কথা, ৪২% উত্তরদাতা বলেছেন মাছ চাষ সংক্রান্ত, ৩১% উত্তরদাতা বলেছেন হাঁস-মুরগি পালনের উপর প্রশিক্ষণের কথা, ২৪% উত্তরদাতা বলেছেন কম্পিউটার প্রশিক্ষণের কথা, ১৯% উত্তরদাতা বলেছেন আধুনিক পদ্ধতিতে চাষাবাদের কথা, অপরদিকে ১৯% উত্তরদাতা বলেছেন ভাসমান বেডে সবজি চাষের প্রশিক্ষণের কথা। এছাড়া স্বল্প সংখ্যক উত্তরদাতা কুটির শিল্প, ড্রাইভিং, পশু চিকিৎসা, মাশরুম চাষ, ইলেকট্রনিক, খামার ব্যবস্থাপা ও বিদেশ যাওয়ার উপর প্রশিক্ষণকে গুরুত্ব দিয়েছেন।

৫. সুপারিশমালা

- ❖ কুড়িগ্রাম ও গোপালগঞ্জ অঞ্চলে দারিদ্র্যের স্বরূপ ও উন্নয়ন প্রচেষ্টা সম্পর্কিত মাঠ জরিপ কর্ম পরিচালনা করতে গিয়ে অনুধাবিত হয়েছে যে, প্রান্তিক কৃষি ও ভূমিহীন হওয়া সত্ত্বেও বেশিরভাগ উত্তরদাতা পরিবারের জীবন-জীবিকা প্রত্যক্ষ কিংবা পরোক্ষভাবে কৃষি নির্ভরশীল। এ কারণে বিকল্প কৃষি/আধুনিক কৃষি প্রযুক্তি সম্প্রসারণের পাশাপাশি এই সব এলাকায় কর্মসৃজন হতে পারে এমন সব প্রকল্প অথবা উদ্যোগ গ্রহণ করা যেতে পারে। সরকারি/বেসরকারি সমন্বিত উদ্যোগ কার্যকর ভূমিকা পালন করতে পারে। এ ক্ষেত্রে কার্যকরী প্রশিক্ষণের মাধ্যমে দক্ষতা উন্নয়ন ও উপকরণ সেবা প্রদান করা যেতে পারে।
- ❖ এলাকা দুটিতে ক্ষুদ্র ও মাঝারী উদ্যোক্তা তৈরীর বিশেষ উদ্যোগ গ্রহণ করা যেতে পারে। পাশাপাশি শিল্পপার্ক স্থাপনের মাধ্যমে বিসিক কর্মসৃজনে উল্লেখযোগ্য ভূমিকা পালন করতে পারে।
- ❖ অর্থনৈতিক কর্মকাণ্ডে যুক্ত হবার প্রয়োজনে ঋণ প্রবাহ যথাযথ ও কার্যকারীভাবে কাজে লাগাতে হবে। সরকারি ঋণ সহায়তার চেয়ে এনজিও ঋণ প্রবাহের উপর নির্ভরশীলতা বেশি প্রতীয়মান হয়েছে। এ ক্ষেত্রে দরিদ্রদের ব্যাংকিং খাতের সাথে যুক্ত করার উদ্যোগ গ্রহণ করা যেতে পারে। “পল্লী সঞ্চয় ব্যাংক” গ্রামীণ ঋণ প্রবাহে গুরুত্বপূর্ণ ভূমিকা পালন করতে পারে।
- ❖ উপজেলা পরিষদের জাতিগঠনমূলক দপ্তর/বিভাগসমূহ তাদের সেবা সহায়তা প্রদানের ক্ষেত্রে অনেক ক্ষেত্রে যথাযথভাবে দায়িত্বপালন করতে পারছেন না বলে প্রতীয়মান হয়েছে। এ ক্ষেত্রে গ্রাম ভিত্তিক শক্তিশালী সমবায়/কমিউনিটি সংগঠন সৃজনের মাধ্যমে উপজেলা পরিষদের সেবাসমূহ গ্রাম পর্যায়ে ইউনিয়ন পরিষদের মাধ্যমে সরাসরি দরিদ্র জনগোষ্ঠীর মাঝে পৌঁছে দেয়া যেতে পারে।
- ❖ দারিদ্র্য নিরসনে অনুদান ও খাদ্য সহায়তা মূল সামাজিক নিরাপত্তা কর্মসূচি হিসেবে প্রতীয়মান হয়েছে। উত্তরদাতাগণ মনে করছেন, অনুদান ও খাদ্য সহায়তার পাশাপাশি কৃষি ও অকৃষি খাতে কর্ম সৃজনমূলক প্রকল্পসমূহে অগ্রাধিকার দিতে হবে। পাশাপাশি বাংলাদেশ

পরিসংখ্যান ব্যুরো কর্তৃক চিহ্নিত বিশেষ বিশেষ দরিদ্রপীড়িত অঞ্চলে (কুড়িগ্রাম, লালমনিরহাট, খাগড়াছড়ি, রংপুর, জয়পুরহাট প্রভৃতি) সমন্বিত দারিদ্র্য বিমোচনে উদ্যোগ গ্রহণ করা যেতে পারে।

- ❖ কুড়িগ্রাম জেলায় নদী ভাংগন রোধ ও প্রাকৃতিক দুর্যোগ মোকাবেলার জন্য সরকারিভাবে বিশেষ উদ্যোগ নিতে হবে। বিশেষ করে নদী ভাঙ্গন রোধে টেকসই ও কার্যকর পন্থা অবলম্বন না করলে বারংবার একই সমস্যা চলতে থাকবে। সে ক্ষেত্রে উন্নত প্রযুক্তি ব্যবহার করে নদী ভাঙ্গন রোধের মাস্টার প্ল্যান গ্রহণ করা যায়। একই সাথে এ বিষয়ে উন্নত দেশসমূহ কি ধরনের পদক্ষেপ নিয়েছে তা পর্যালোচনা করা যেতে পারে।
- ❖ কর্মসংস্থানের সুযোগ বৃদ্ধি করে সারা বছর যাতে ক্ষেত মজুর ও অন্যান্য নিম্ন আয়ের মানুষের কর্মসংস্থানের ব্যবস্থা করা যায় সে জন্য এলাকায় পরিকল্পিত ভাবে ক্ষুদ্র ও মাঝারী শিল্প কারখানা গড়ে তোলার ব্যবস্থা করা যেতে পারে।
- ❖ আত্র-কর্মসংস্থান বৃদ্ধির জন্য সক্ষম জনগোষ্ঠীকে কারিগরি ও পেশাভিত্তিক (বিভিন্ন ধরনের আয় বৃদ্ধিমূলক) প্রশিক্ষণের ব্যবস্থা করা।
- ❖ সমীক্ষা এলাকায় শিক্ষার হার অত্যন্ত কম। এক্ষেত্রে শিক্ষার হার বৃদ্ধির জন্য বিশেষ করে কারিগরি শিক্ষার বিস্তারে বিশেষ উদ্যোগ গ্রহণ করতে হবে।
- ❖ সমীক্ষা পরিচালনায় প্রতীয়মান হয়েছে যে, এখনও গ্রাম পর্যায়ে বেসরকারি ও মহাজনী ঋণের পরিমাণ ও সুদের হার বেশি। এক্ষেত্রে সরকার কর্তৃক এই ঋণের সুদের হার সুনির্দিষ্টভাবে নির্ধারণ করে দেয়া যেতে পারে। পাশাপাশি দারিদ্র্য পীড়িত এই সব অঞ্চলের সকল মানুষ যাতে ব্যাংকিং সুবিধার আওতায় আসতে পারে এ বিষয়ে উদ্যোগ নেয়া যেতে পারে।

Chapter 4

Annual Report on Training (2020-21)

4.1 Introduction

A journey from a developing country towards the middle-income country by 2022 necessitated systematic changes in production, distribution, and service delivery system in Bangladesh during the recent past. Along with other resources, no doubt human resources are playing a vital role in the process of this transformation. In accordance with this policy and priority changes at home and abroad, the perspective plan of Bangladesh has emphasized among others on utilization of labor supplied by poor and disadvantaged family by increasing their productivity, enhancing the competence of civil servants by increasing their professionalism & commitment and strengthening the capacity of local government especially in the area of exercising fiscal authority. The essence of SDGs has shifted the concern of the whole world from quantitative to qualitative change and it has emphasized generating productive and decent employment along with creating an accountable, transparent and effective institution of service delivery in the government sector. Training is widely used for improving productivity and strengthening capacity through transferring technology, sharing contemporary techniques of management and orienting administrative, legal, social and political reality in service delivery mechanism.

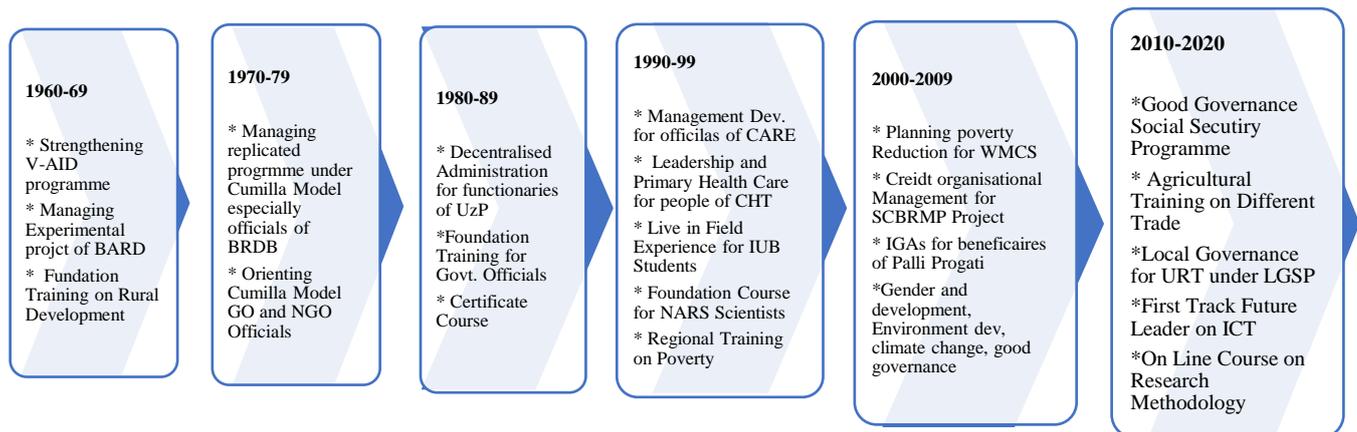
Bangladesh Academy for Rural Development (BARD) has been imparting training to various types of development functionaries ranging from government & non-government officials to leaders and members of community organization and local government institutions since its inception in 1959. Training is one of the vital components of BARD, while research and action research are opted to make its training programme pragmatic and practical. Dr. Akhter Hameed Khan, the eminent social scientists and founder Director of BARD introduced these innovative approaches of works and BARD has been following this tradition of works. From 1959 to till now, BARD organized a total of 8,674 courses for a total of 2,94,411 participants. This report contains a detailed performance of training against the plan for 2020-21 and a draft training plan for 2021-22.

4.2 Changing Training Focus and Curriculum at BARD

BARD is one of the leading training institutes in the public sector. As an autonomous institution, BARD has the responsibility to design its training curriculum according to the need of different clientele groups, reflecting the policy priority issues at home and abroad. Since its inception, BARD has shifted its training focus in terms of curriculum. The Academy was established to cater to the

training needs of Village Agricultural Industrial Development (V-AID) officials hence, its clientele were circle officers, development officers, village Aid Supervisors involved in implementing the V-AID programme.

In the early sixties, the Academy concentrated on strengthening the capacity of V-AID programme implementers. Side by side, the Academy was involved in experimenting with some development concepts in its social laboratory areas. After getting the spectacular result the then government



decided to expand those programme in more areas hence, the Academy got new areas of training i.e. project management of experimental projects for the responsible project manager. Side by side, Academy was entrusted with the design of a foundation training course on Rural Development for the civil servants. The four components of the **Cumilla model** were replicated all over the country in the late sixties and early seventies. In the seventies, Academy was very much busy organizing training for orienting the organizational and management aspect of different components of the Cumilla model to government and Non-government officials.

In the eighties, the training need related to the Cumilla model reduced a lot. At that time the introduction of the Upazila System creates a new opportunity to arrange training for the elected representatives and officials of Upazila Parishad. BARD also introduced some certificate training courses for the government and non-government officials on contemporary issues of development. Besides those, BARD was also involved in imparting foundation training to the newly recruited government officials. So, a shift from cluster group trainees to a mixed group of trainees was observed during the eighties. BPATC also used to send their trainees of Foundation Training Course at BARD for a short duration to orient them in different aspects of rural development. Another shift was also observed in the nineties by organizing Foundation Training Course for the scientists of National Agricultural Research System (NARS) and Administrative and Management course for the

senior scientists of NARS. In this decade BARD also organized a series of training courses for the community leaders and community health workers of Chittagong Hill Districts. Side by side, students of private and public universities came forward for studying rural livelihood in a more systematic way. With the help of Commonwealth Secretariat, BARD also started training course on rural poverty for the officials of commonwealth countries and SAARC officials under the auspices of SAARC countries.

BARD has continued this trend in the next two decades. Especially, Foundation training for the BCS (Health) officials, rural development attachment courses for the officials of different cadre services, attachment course for the university students, one or two regional training under the auspices of AARDO are the regular courses in every year. After the election of local government at Upazila level BARD is entrusted with the responsibilities to train the functionaries of local government at the Upazila level of Chittagong and Sylhet Division. Along with this initiative, BARD also organized some short courses on poverty, governance, project management, social security programme, office management, and gender and development, etc. for different stakeholders of donor aided projects and from its initiative. Last two years, BARD is also paying lots of effort for imparting Foundation training for the different cadre of officials and the beneficiaries of Amar Bari Amar Khamar and Lalmai Moynamoti projects on various trades of the agricultural sector. Besides, BARD is also trying to accustom to the changed situation triggered by ICT by organizing training in this area.

So, it is clear from the above discussion that the focus of the training curriculum has changed a lot and most of the time market demand, government policy, national priority, the expertise of faculty members, etc. played a pivotal role in bringing changes in curriculum. It may be mentioned here BARD employed lots of efforts in the seventies to train the officials related to implementing an experimental project of BARD after its replication. But, in the 21st century, BARD handed over two projects namely Comprehensive Village Development Programme (CVDP) and Small Farmers Development Programme (SFDP) for replicating widely. But, a few training programme was organized for the officials related to implementing those projects by BARD. As a result, insights gained by experimenting with those projects in several years by BARD were not infused to the implementing officials of those projects. BARD should take care in the future to take its stake in training and evaluation after handing over any new programme to the government.

4.3 Clientele of BARD's Training Programs

Civil servants, officials involved in development works, leaders of village institutions & local government, students of higher studies are the major clientele of BARD. Bangladesh Public Administration Training Centre (BPATC) regularly sends its trainees of Foundation Training Course at BARD for having first-hand knowledge of rural livelihood. Every year BARD got some sponsoring agencies to organize training courses for its mandated clientele. The content of the training program is shifted following the changes in demand of market, policy, technology, etc. As few institutions send their clientele on a regular basis BARD needs to depend on the market for organizing its mandated activity of training. This has created an opportunity for BARD to be competitive and innovative in designing and organizing training courses. In the recent past, BARD got a considerable number of participants from DGHS, LGED, LGD, MoPA, BCC, BARC, MJF and AARDO. Increased demand is observed among the students of public universities specially Cumilla University, Chittagong University. Last year, BARD has got new groups of participants from UGDP, LDDP, NAEM, Ministry of Chittagong Hill Districts Affairs, BGDCL, BIAM Foundation Bogura, RDA Bogura etc.

4.4 Training Calendar

Every year, after the APC, BARD publishes a training calendar, incorporating different training programs, on the basis of the requests of the sponsoring agencies. The training calendar contains Academy's self-initiated training courses, training courses sponsored by different organizations at home and abroad, workshops, and seminars. However, beyond the training calendar, subsequent requests from different institutions are also accommodated on the basis of the available scope of the Academy.

4.5 Training Methods

The effectiveness of any training course largely depends on the appropriateness and systematic use of various training methods and materials. For increased engagement of the participants in the training and learning process, continuous efforts have been made by BARD to update and improve its training methods, tools, techniques, and materials. Recently the government has emphasized the use of participatory training methods in all training courses as much as possible to reduce dependency on Powerpoint-based one-way lecture methods. Accordingly, Academy has been incrementally increasing application of participatory training methods and techniques like lecture-cum-discussion, group discussion, group exercise, seminar, workshop, brainstorming, syndicate, visualization in participatory planning (VIPP), field attachment, field survey, book review, case study, report presentation, games and simulation techniques, debate, role play, documentary film shows, etc. The

application of video conferencing in training is also been introduced. Very recently, BARD organized a few video conference sessions with the Honorable State Minister, LGRD&C, Secretary, RDCD; DG representative of NILG, NAEM, BPATC etc. with the active participation of various participants. The sessions were conducted interactively under the leadership of our respected DG, BARD. Last year BARD organized a number of video conference with different stakeholders who were not able to present physically due to Corona Virus. Besides this, by using the zoom platform, many renowned resource persons conduct different sessions in the FTC.

4.6 Training Management

Training Division is responsible for the overall coordination of training activities. The Division is headed by a Director, who is assisted by one Joint Director, one Deputy Director, and one Assistant Director. This Division is also supported by one Training Officer, one Section Officer and several other supporting staff to carry out the day-to-day functions of this Division. Training Division initiates and maintains regular correspondence and negotiates with sponsoring organizations/agencies for organizing training courses, preparing training budget and schedule, ensuring timely release of funds, etc. Course Administration of each training course under the annual plan is proposed by the Division and approved by Director General, BARD for smooth implementation of the course.

The Director-General plays the role of Advisor for each training course. As per the mandate, this Division coordinates and monitors training programs to provide necessary inputs/materials and other logistic services for the smooth running of the training programs. The process of any sponsored training program starts with the request made by the sponsoring organizations/agencies followed by negotiations regarding the terms and conditions of the course, schedule, mode of implementation of the course as well as adjustment of expenditures. The process ends with the submission of the course completion report along with a financial statement to the respective sponsoring agencies.

4.7 Training Performance during 2020-21

The Academy organized a total of **150** courses against a target of **145** and the actual number of participants of those courses was **5547** against the target of **6000** in 2020-21. The achievement of course organization in terms of the number of courses was **103%** and for the number of participants, the achievement was **92%**. (Table-1). The female constitutes **49%** of the total participants.

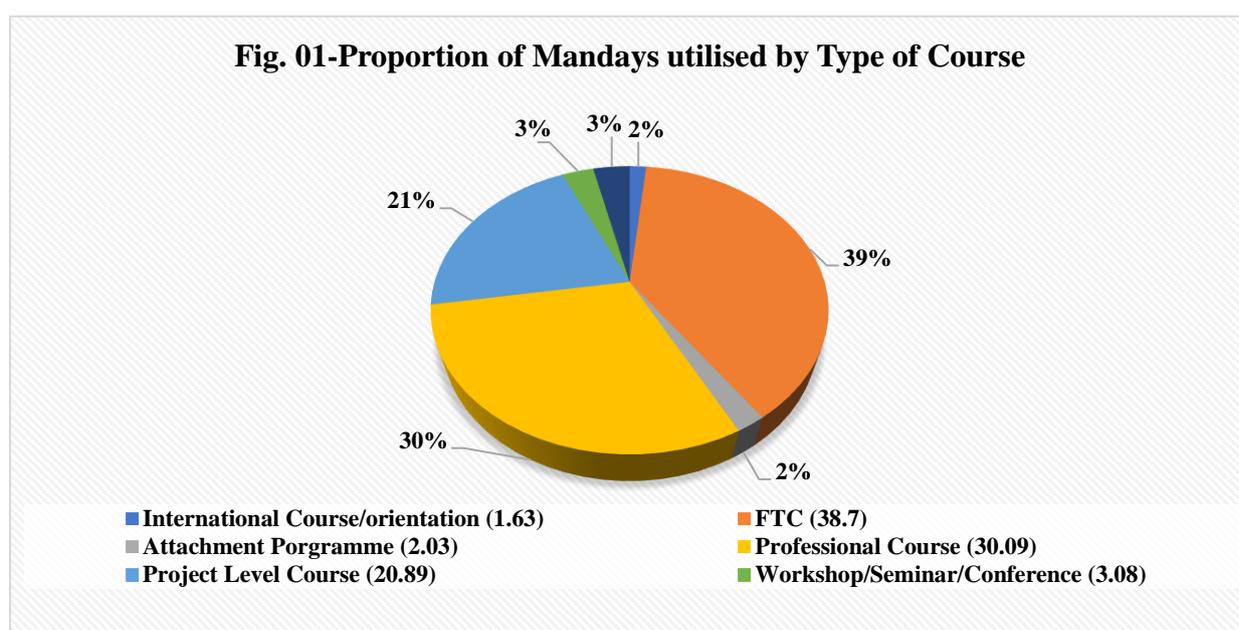
Table-01: Achievement of Training against Plan during 2020-21

Sl. No	Nature of Courses	Plan		Achievement		% of Achievement	
		Course	Participant	Course	Participant	Course	Participant
A	International Course	7	150	1	65	14.29	43.33
B	National						
B.1	SFTC	3	120	0	0	0	0
B.2	FTC	0	0	3	156	0	0
B.3	Attachment Porgramme	5	350	4	214	80	61.14
B.4	Professional Course	25	580	35	1113	140.00	191.19
B.5	Project Level Course	70	2200	82	2598	117.14	118.09
B.6	Workshop/Seminar/ Conference	10	800	16	1101	160.00	137.63
B.7	Orientation	15	1500	0	0	0	0
B.8	In House Training	10	300	9	300	90.00	100.00
Sub Total (National)		138	5850	149	5482	107.97	93.71
Grand Total		145	6000	150	5547	103.45	92.45

Source: Calculated from Annexure 01

A total of 40,213 man-days were used for organizing training during 2020-21 against a plan of 24,640 man-days. Due to COVID-19 Pandemic, BARD did not get any participants from educational institutes. As a result, it could not achieve its plan of the number participants.

However, a close look at the utilization of man-days implies that major part of the man-days were



used for imparting training to the Foundation Training Course (38.70%), professional courses (30.09%) and project level beneficiaries (20.89). A short brief on different types of training is furnished below:

4.8 International Training Courses/Seminars/Workshops

In 2020-21, an online International Training Workshop on **“Poverty Alleviation Through Micro Finance: State of Art in COVID-19”** was organized by BARD under the joint sponsorship of Government of Bangladesh and African Asian Rural Development Organization (AARDO) where 65 participants from 16 different countries attended. The **Seventh International Integrative Research Conference on Development, Governance and Transformation** was not held due to COVID-19 Pandemic.

4.9 Foundation Training Courses

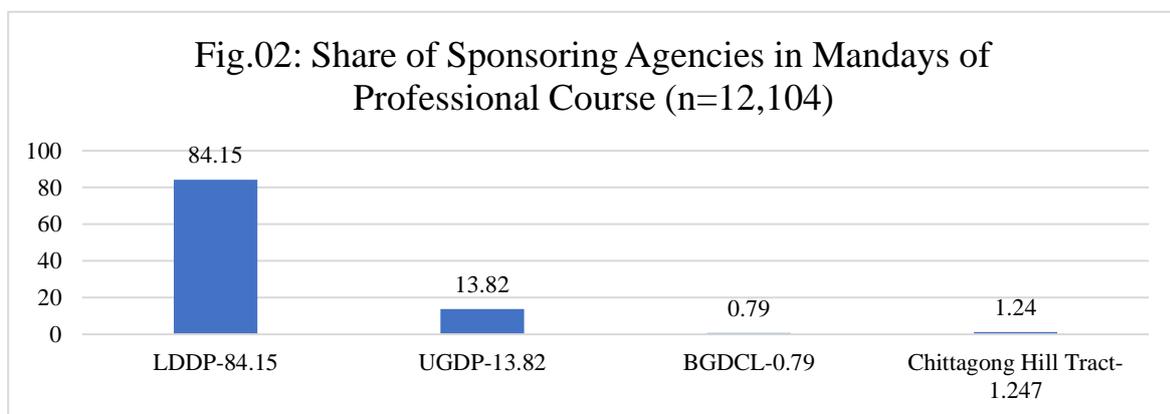
Among the national level training courses, there were two six months’ long Foundation Training Courses for BCS officials of different cadres sponsored by Ministry of Public Administration of them one course is 71st Foundation Training Course is completed successfully with the duration of 11 October 2020 to 08 April 2021. But the second FTC is 72nd Foundation Training Course which has the duration of 06 June to 02 December 2021 was not continued due to 2nd Phase of the COVID-19 Pandemic. The course was continued until 30 June 2021. In this financial year (2020-21) BARD has implemented a four-month long Foundation Training course that is BCS General Education Cadre officials sponsored by NAEM. It is worth mentioning that as a national training institute, BARD has an obligation to undertake some programs according to the priorities of the government. After the promulgation of the Public Administration Training Policy 2009, the demand for the Foundation Training Courses for the officials of various departments has increased. BARD continued responding to this demand by conducting Foundation Training Courses in the year 2020-21 as well.

4.10 Attachment Programs on Rural Development

Four attachment courses on **“Rural Development and Poverty Reduction”** was organized for BCS Cadre officials attended foundation training courses at BPATC, BCS Administration Academy, Bangladesh Institute of Administration and Management (BIAM), Bogura, Rural Development Academy (RDA), Bogura and Telecommunication Staff College (TSC), Gazipur. No attachment courses on rural development was held for the students of different universities in 2020-21 due to COVID-19 Pandemic. Theoretical sessions on rural development, practical learning through guided field visits, report writing and presentation were included in these attachment programs. Moreover, project-level training courses were also organized for the beneficiaries of BARD’s own Action Research Projects.

4.11 Professional Courses

BARD organized 35 professional training courses sponsored by other organizations for a total of 1113 participants using 12,104 man-days. Five organizations, namely Bangladesh Bank, Livestock and Dairy Development Project (LDDP), National Academy for Education Management (NAEM), Ministry of Chittagong Hill Districts Affairs, Bakhrabad Gas Distribution Company Limited (BGDCL) and Upazila Governance Development Project (UGDP) sponsored those training courses. The board area of these course were basic course for Livestock Service Provider, District Council Management and Sustainable Development Goals (SDGs), Organizational Good Governance, Urban local government, poverty reduction, Upazila Parishad's Planning and Service Delivery.



LDDP sponsored the training course for the Livestock Service Provider and two-thirds of the man-days of the professional training course were utilized for the trainees of the LDDP training course. 13.82 man days were utilized for the trainers of the LDDP training courses. The share of other sponsoring organizations varies from 1% to 2 %.

4.12 Project Level Courses

An important shift was observed from 2017-2018, by conducting a series of courses for the beneficiaries of the Lalmai-Mainamati sub-project (Under ABAK) of BARD. A total of **63** project-level training courses were conducted sponsoring by the Lalmai-Mainamati sub-project where **1856** beneficiaries and functionaries of the project attended. Besides, training courses were organized for beneficiaries of BARD revenue projects namely Women's Education, Income and Nutrition Improvement Project (WEINIP), Rural Livelihood Improvement through Village Based Organizations and Union Parishad and E-Parishad for Better Service Delivery in Rural Areas, Incubator Project and Kowmi Madrasa Project.

4.13 Self-Initiated Training Courses

BARD offers professional training courses for the officials of government and non-government organizations. Officials/individuals having requisite qualification can attend any of these courses by paying required course fees. Different divisions of BARD prepare training brochures consist of course objectives, curriculum/contents, methodology, duration, course fee, etc. On behalf of BARD, Training Division takes the necessary measures for advertising the courses in the well-circulated national dailies and BARD website. BARD designed 18 such courses to be organized each year a list of which can be seen in Table-2. In 2020-21, BARD organized only one self-initiated training course on Project Management for the participants of Bangladesh Bank. As most of the training was scheduled to organize from March, BARD had to postpone those due to the COVID-19 pandemic situation.

Table-2: BARD Initiated Training Courses

Sl. No.	Name of the Training Course	Duration (Working Days)	Responsible Divisions
1.	Development Project Planning and Management(DPPM)	05	Project Division
2.	Monitoring and Evaluation of Development Project	05	
3.	Gender, Nutrition and Reproductive Health	05	Rural Education and Social Development Division
4.	মানসম্মত শিক্ষাদান পদ্ধতি ও বিদ্যালয় ব্যবস্থাপনা উন্নয়ন কৌশল	04	
5.	স্বাস্থ্য পুষ্টি জরিপ ও পরিবেশ উন্নয়নে বনায়ন ও ঔষধি বৃক্ষের ব্যবহার	03	
6.	Training of Trainers (ToT)	05	Training Division
7.	Research Methodology for Social Science Researchers	21	Research Division
8.	Development Communication	05	Administration Division
9.	Irrigation Management and Land Use Development Planning	05	Agriculture and Environment Division
10.	Climate Change Issues and Its Adaptation	05	
11.	Food adulteration and way out	05	
12.	Dairy Production and Health	05	
13.	Development of Micro-Entrepreneurship	05	
14.	Development Management	05	Rural Economics and Management Division
15.	Rural Development for Bank Officials	05	
16.	Participatory Rural Development and Management	05	Rural Sociology and Demography Division
17.	Team Building, Leadership Development and Mind-Set Change	05	
18.	Governance, Sustainable Development and Poverty Reduction	05	Rural Administration and Local Government Division

4.14 In-house Training Courses

Last year, BARD gave high priority to in-house training courses relating to innovation, code of conduct, and office management. Most of the courses were for the capacity building of the Academy's Faculty and other employees. The training courses were related Good Governance, Job Rules and Office Management, Digital Skill and Office Management and training workshop Innovation Public Service Delivery.

4.15 Orientation Programs for Students

As the educational institutions were closed last year due to COVID-19 Pandemic, so there were no activities of orientation programs for students. Adjusting with the regular training programs, BARD accommodated the maximum of such orientations. Academy believes that this type of interaction is essential for the dissemination of rural development messages to the new generation. So these activities were not possible in the last year as COVID-19 Pandemic out breaks last year.

4.16 Workshops, Seminars and Conferences

The Academy organized a number of important seminars and workshops which are as follows:

১. “বঙ্গবন্ধুর সামগ্রিক জীবন” শীর্ষক বিষয়ক সেমিনার
২. “রাষ্ট্রভাষা হিসেবে বাংলাভাষার মর্যাদা প্রতিষ্ঠা ও বাংলা ভাষাকে আন্তর্জাতিক পরিমন্ডলে উপস্থাপনে জাতির পিতার ভূমিকা” শীর্ষক বিষয়ক সেমিনার
৩. মুজিব শতবর্ষ উপলক্ষে “দারিদ্র হ্রাসকরণে বঙ্গবন্ধুর ভাবনা:- বর্তমান চিত্র ও সাফল্য গাঁথা” শীর্ষক সেমিনার
৪. টেকসই উন্নয়নে মানসম্মত শিক্ষা ও সামাজিক মূল্যবোধ শীর্ষক সেমিনার
৫. Seminar Programme on Research Highlights of BARD-2021
৬. Seminar Programme on Action Research Highlights -2021
৭. পল্লী এলাকায় আধুনিক কৃষি প্রযুক্তি সম্প্রসারণে বার্ডের করণীয় শীর্ষক সেমিনার
৮. আন্তর্জাতিক স্বাক্ষরতা দিবস উপলক্ষে সকলের জন্য টেকসই ও মানসম্মত শিক্ষা প্রসার এবং সুস্বাস্থ্য অর্জনে উদ্বুদ্ধকরণ বিষয়ক ক্যাম্পেইন কর্মশালা
৯. বিশ্ব শিশু ও কণ্যা শিশু দিবস উপলক্ষে গ্রামীণ সমাজে শিশু শিক্ষা, স্বাস্থ্য ও পুষ্টি সুরক্ষা এবং অধিকার সুপ্রতিষ্ঠায় সংগঠনের করণীয় শীর্ষক কর্মশালা
১০. কোভিড-১৯ পরিস্থিতিতে প্রকল্পের আওতাভুক্ত সংগঠনের গ্রামকর্মী, পর্যবেক্ষক ও ফ্যাসিলিটিটর নিয়ে স্বাস্থ্য পরিচর্যা এবং বর্জ্য ব্যবস্থাপনা ও পরিবেশ উন্নয়ন বিষয়ক ক্যাম্পেইন কর্মশালা
১১. বার্ষিক কর্মসম্পাদন চুক্তি (২০২০-২০২১) কর্মশালা
১২. নাগরিক সেবায় উদ্ভাবন বিষয়ক প্রশিক্ষণ কর্মশালা
১৩. Workshop on Referencing, Footnotes & Academic Writing in Social Research
১৪. বার্ষিক কর্মসম্পাদন চুক্তি অবহিতকরণ বিষয়ক কর্মশালা, ২০২০-২১ (২য় ব্যাচ)
১৫. গ্রামীণ ছাত্র-ছাত্রীদের শিক্ষায় করোনার প্রভাব এবং করণীয় শীর্ষক কর্মশালা ২০২১
১৬. ৫৩তম বার্ষিক পরিকল্পনা সম্মেলন
১৭. মশিআপুট প্রকল্পের বার্ষিক মূল্যায়ন ও পরিকল্পনা সম্মেলন

4.17 Use of Physical Facilities of BARD

Physical facilities of BARD like hostel, cafeteria, classroom, conference hall, and auditorium can be used on a rental basis by government, non-government and private organizations. These facilities are also offered to national and international organizations/ agencies for arranging training courses, workshops, seminars, and conferences. The priority of providing physical facilities is given to the national and international organizations which are actively involved in development activities. In the reporting year, 16 institutions used physical facilities of BARD.

4.18 Action Taken against the comment of last APC: Last year participants make some important comments over the performance of BARD training.

Action taken by BARD on those comments are given in following table:

Sl. No.	Comments	Action Taken
01	BARD should arrange foundation courses of elected representative of Union Parishad	BARD has already conducted basic training courses for the newly recruited secretary of the Union Parishad. If demand comes BARD would take initiatives for arranging foundation courses of elected representative of Union Parishad.
02	BARD should arrange plan formulation training considering the issues of SDGs by Union Parishad	BARD has already introduced five year plan book for a Union Parishad through a revenue funded project. The issues of SDGs are covered in this plan.
03	BARD should arrange training course on homestead gardening with a special focus on vegetables and spices.	A series of courses on vegetable and seed production and cultivation has already been conducted by the Lalmai-Mainamati project of BARD
04	BARD could organize training on summer tomato cultivation, aquaponics, roof gardening.	Hydroponic cultivation, year wise vegetable cultivation, bioflox are already introduced at BARD campus through demonstration projects. So BARD is ready to conduct training on the issues.
05	BARD could organize training covering the issues on morals, ethics the National Integrity Strategies,	These courses are already introduced in the in-house training courses of BARD. Besides

Sl. No.	Comments	Action Taken
	etiquette and manner, social security system etc.	these sessions are incorporated in two month long and six month long foundation courses.
06	BARD could organize training on Public Procurement Rules (PPR), Project Planning and Monitoring (PPM) feasibility study of a project etc.	Last year, Rural Economic and Management Division of BARD has designed a self-initiated training course on Public Procurement Rules (PPR), and BARD already has implemented training course on Project Planning and Monitoring (PPM).
07	Increase the duration of TOT course from 5 days to 15 days.	BARD is ready to conduct 15 days TOT for the advanced learners as per the demand of the courses.
08	Budget provision for the Health protection of participants during the pandemic situation and continue this endeavor in the future also.	BARD has already introduced these provision in all the training courses from the last year and hope to continue in future.

4.19 Some Observations and Concluding Remarks

- At present, a great deal of discussions is going the impact of Covid-19 on different aspects of development. From last year the COVID-19 pandemic has affected the ways of our work and learning in an unprecedented way. BARD is trying to cope with this situation by using the digitized platform for organizing its training. BARD has already built its capacity on organizing online training programs effectively with different organizations and different sessions in training courses.
- Last year BARD successfully organized an International Online Training Workshop by using the digital platform. This year also AARDO already gave a proposal to BARD to conduct an International Online Training Program. Besides this, several online training programs can be organized.
- The project directors of BARD revenue funded projects organized training courses and training workshop for the project beneficiaries through out the year. At the time of arranging such types of training courses, the respected project directors are requested organize the project level training courses through the training division.
- If the situation improves in the near future, it is expected that there will be a huge load of regular training programs to cater the need of sponsoring agency.

Annexure- I

Detailed Achievement of Courses, Participants and Man-days against the Plan in the Year 2020-21

Sl. No.	Title of the Course	Target			Achievement			Sponsor
		Number of Courses	Number of Particip:	Mandays	Number of Courses	Number of Particip:	Mandays	
A	International Courses							
1	Training Course	--	--	--	--	--	--	--
2	International Training Workshop on Achieving Sustainable Development Goals : Financial Inclusion and Rural Transformation	1	20	240	1	65	650	AARDO
3	7 th International Integrative Research Conference on Development, Governance and Transformation	1	100	200	0	0	0	BARD, DU, Stamford University
4	Orientation Program	5	30	150	0	0	0	CIRDAP
Sub-total:		7	150	590	1	65	650	
B	National Level Training Courses							
1	Special Foundation Training Course for BCS (Health) Cadre Officials	3	120	7200	0	0	0	DGHS
2	Foundation Training Course for BCS Cadre Officials	0	0	0	3	156	15564	MoPA/ BPATC
3	Attachment Program for BCS Cadre Officials	0	0	0	4	214	818	MoPA/ BPATC
4	Attachment Program for University Students	5	350	1750	0	0	0	Different University
Sub-total:		8	470	8950	7	370	16382	
C	Professional Training Courses							
1	Self-initiated Training Course	15	330	1650	1	25	125	BARD
2	Professional Training courses Sponsored by Other Organizations	10	250	1250	34	1088	11979	LDDP, UGDP etc
3	Workshop/Seminar/Conference	10	800	800	16	1101	1237	BARD
4	Project Level Training Course for Project Beneficiaries of BARD	60	1800	7200	82	2598	8400	LMP(ABAK),WEINIP E-Parishad, Livelihood Development Project

Sl. No.	Title of the Course	Target			Achievement			Sponsor
		Number of Courses	Number of Particip:	Mandays	Number of Courses	Number of Particip:	Mandays	
5	Project Level Training Course for Project Beneficiaries of <i>Amar Bari Amar Khamar</i> Project	10	400	1200	0	0	0	ABAK
6	Orientation Program on various organizations	15	1500	1500	0	0	0	Different school, college, University & Organizations
7	In-house Training Course	10	300	1500	9	300	1440	BARD Employees
Sub-total:		130	5425	13850	142	4112	23181	
Total =		145	6000	24,640	150	5547	40213	

Detailed Accomplishment of Training Performance of BARD 2020-21

SL. No.	Title of the Course	Duration (Days)	Sponsor	Male	Female	Total Participants	No. of Courses	Man-days	Types of Participant	Course Director/Asso. Course Director/Asstt. Course Director
1	2	3	8	5	6	7	4		9	10
1	International Training Course									
2	International Workshop									
1	Online International Training Programme on "Poverty Alleviation through Micro Finance: State of Art in COVID-19"	02-11 November 2020	BARD & AARDO	42	23	65	1	650	Officials of different AARDO Member Country	Mr. Ranjan Kumar Guha Ms. Saifun Nahar Mr. Md. Ashik Sarkar Lifat
Subtotal =				42	23	65	1	650		
3	International Conference/Seminar									
National Level Courses										
1	Attachment Programs									
1.1	Rural Development and Poverty Reduction (71 FTC)	29 November - 03 December 2020	BIAM Foundation Bogura, RDA Bogura	65	0	65	1	260	Officials of different Cadre service of 71 th Ftc	Mr. Md. Shafiqul Islam (ADG) Ms. Azma Mahmuda
1.2	Rural Development and Poverty Reduction (71 FTC)	06-10 December 2020	BPATC Dhaka	21	10	31	1	124	Officials of different Cadre service of 71 th Ftc	Mr. Abul Kalam Azad Ms. Saifun Nahar
1.3	Rural Development and Poverty Reduction (71 FTC)	13-17 December 2020	BCS Administration Academy	25	15	40	1	200	Officials of different Cadre service of 71 th Ftc	Mr. Milan Kanti Bhattacharjee Mr. Md. Abu Taleb
1.4	Rural Development and Poverty Reduction (163 rd FTC)	01-03 June 2021	TSC, Gazipur	56	22	78	1	234	Officials of different Cadre service of 163 rd Ftc	Ms. Nasima Akter Mr. Md. Saleh Ahmed
Subtotal =				167	47	214	4	818		
2	Foundation Training Courses									
1.1	71 st Foundation Training Course for BCS Cadre	11 October 2020 - 08 April 2021	Ministry of Public Administration	32	13	45	1	8100	Bcs Cadre officials	Mr. Mohammad Abdul Quader Mr. Benzir Ahmed Mr. Kamrul Hasan
1.2	72 nd Foundation Training Course for BCS Cadre	06 June - 02 December 2021	Ministry of Public Administration	48	13	61	1	1464	Bcs Cadre officials	Dr. Md. Kamrul Hasan Ms. Saifun Nahar Mr. Faruk Hossain
1.3	160 th Foundation Training Course (BCS Education)	16 February - 15 June 2021	NAEM	30	20	50	1	6000	Bcs Cadre (Education) officials	Dr. Abdul Karim Ms. Azma Mahmuda Mr. Md. Babu Hossain
Subtotal =				110	46	156	3	1556 4		

SL. No.	Title of the Course	Duration (Days)	Sponsor	Male	Female	Total Participants	No. of Courses	Man-days	Types of Participant	Course Director/Asso. Course Director/Asstt. Course Director
3	Special Foundation Training Courses									
4	In-house Training Courses									
4.1	সুশাসন বিষয়ক প্রশিক্ষণ কোর্স	08-12 November 2020	BARD	30	10	40	1	200	Employee of BARD	Mr. Abdulla-Al-Mamun (AD)
4.2	চাকরীর বিধিমালা ও অফিস ব্যবস্থাপনা	15-19 November 2020	BARD	25	5	30	1	150	Employees of BARD	Ms. Farida Yeasmin
4.3	চাকরী বিধিমালা ও অফিস ব্যবস্থাপনা	20-22 & 27-28 March 2021	BARD	20	10	30	1	120	Employees of BARD	Mr. Faruk Hossain
4.4	Development Digital Skill & Office Management	18-19 & 25-27 December 2020	BARD	24	6	30	1	120	Employees of BARD	Mr. Md. Ashik Sarkar Lifat
4.5	Development Digital Skill & Office Management	29 May - 03 June 2021	BARD	25	5	30	1	150	Employees of BARD	Mr. Md. Abu Taleb
4.6	আর্থিক ও ক্রয় ব্যবস্থাপনা	05-09 June 2021	BARD	22	8	30	1	150	Employees of BARD	Mr. Kamrul Hasan
4.7	চাকরী বিধিমালা ও আইন	12-16 June 2021	BARD	35	5	40	1	200	Employees of BARD	Kazi Sonia Rahman
4.8	সুশাসন ১ম ব্যাচ	19-23 June 2021	BARD	37	3	40	1	200	Employees of BARD	Mr. Junaed Rahim
4.9	সুশাসন ২য় ব্যাচ	20-24 June 2021	BARD	29	1	30	1	150	Employees of BARD	Mr. Md. Saleh Ahmed
Subtotal =				247	53	300	9	1440		
5	BARD Initiated Training Courses									
5.1	Project Management	07-11 February 2021	Bangladesh Bank	16	9	25	1	125	Officers of Bangladesh Bank	Mr. Abdullah Al Mamun (D) Mr. Anas Al Islam
Subtotal =				16	9	25	1	125		
6	Courses Sponsored by Outside Agencies									
6.1	“Basic Training Course on Upazila Parishad Planning and Service Delivery” (1 st - 19 th Batch) 19 Course	October 2020 – February 2021	UGDP Project	486	66	552	19	1656	Project Beneficiaries	BARD Faculty
6.2	“Training of Livestock Service Providers (1 st -12 th Batch) 12 Course	October 2020 – June 2021	LDDP	326	154	480	12	1008 0	Project Beneficiaries	BARD Faculty
6.3	Organizational good governance	21-25 March 2021	BGDCL	18	1	19	1	95	Officials of BGDCL	Mr. Ranjan Kumar Guha Mr. Abdullah Al Hussain
6.4	District council Management and Sustainable Development Aimed (1 st - 2 nd Batch) 02 Courses	Feb,21	Ministry of Chittagon g Hill Tracts Affairs	31	6	37	2	148	District council Member of Rangamati, Khagrachari, Bandarban	Dr. Abdul Karim Dr. Md. Mizanur Rahman Ms. Azma Mahmuda

SL. No.	Title of the Course	Duration (Days)	Sponsor	Male	Female	Total Participants	No. of Courses	Man-days	Types of Participant	Course Director/Asso. Course Director/Asstt. Course Director
		Subtotal =	Sub Total =	861	227	1088	34	11979		
7	Orientation Courses									
8	National/International Visitors									
9	National Workshop									
9.1	আন্তর্জাতিক স্বাক্ষরতা দিবস উপলক্ষে সকলের জন্য টেকসই ও মানসম্মত শিক্ষা প্রসার এবং সুস্বাস্থ্য অর্জনে উদ্বুদ্ধকরণ বিষয়ক ক্যাম্পেইন কর্মশালা	07 Sep 2020	WEINIP, BARD	4	48	52	1	52	Project Beneficiaries	Ms. Nasima Akter Ms. Farida Yeasmin
9.2	বিশ্ব শিশু ও কন্যা শিশু দিবস উপলক্ষে গ্রামীণ সমাজে শিশু শিক্ষা, স্বাস্থ্য ও পুষ্টি সুরক্ষা এবং অধিকার সুপ্রতিষ্ঠায় সংগঠনের করণীয় শীর্ষক কর্মশালা	30, Sep, 20	WEINIP, BARD	0	31	31	1	31	Project Beneficiaries	Ms. Nasima Akter Ms. Farida Yeasmin
9.3	কোভিড-১৯ পরিস্থিতিতে প্রকল্পের আওতাভুক্ত সংগঠনের গ্রামকর্মী, পর্যবেক্ষক ও ফ্যাসিলিটের নিয়ে স্বাস্থ্য পরিচর্যা এবং বর্জ্য ব্যবস্থাপনা ও পরিবেশ উন্নয়ন বিষয়ক ক্যাম্পেইন কর্মশালা	01 Oct 20	WEINIP, BARD	3	69	72	1	72	Project Beneficiaries	Ms. Nasima Akter Ms. Farida Yeasmin
9.4	বার্ষিক কর্মসম্পাদন চুক্তি (২০২০-২০২১) কর্মশালা	14 Oct 2020	BARD	36	7	43	1	43	BARD Officials	Dr. Abdul Karim Mr. Benzir Ahmed
9.5	নাগরিক সেবায় উদ্ভাবন বিষয়ক প্রশিক্ষণ কর্মশালা	28-29 December 2020	BARD	21	8	29	1	58	BARD Officials	Mr. Md. Shafiqul Islam
9.6	Workshop on Referencing, Footnotes & Academic Writing in Social Research	13 & 20 February 2021	BARD	12	4	16	1	32	BARD Officials	Dr. Md. Mizanur Rahman Mr. Benzir Ahmed
9.7	বার্ষিক কর্মসম্পাদন চুক্তি অবহিতকরণ বিষয়ক কর্মশালা, ২০২০-২১ (২য় ব্যাচ)	20 Mar 2021	BARD	37	13	50	1	50	BARD Officials	Dr. Abdul Karim
9.8	গ্রামীণ ছাত্র-ছাত্রীদের শিক্ষায় করোনার প্রভাব এবং করণীয় শীর্ষক কর্মশালা ২০২১	26 Jun 2021	BARD	68	11	79	1	79	Officials of BARD & Different Organizations	Mr. Ranjan Kumar Guha Mr. Benzir Ahmed
		Subtotal =	Sub Total =	181	191	372	8	417		
10	National Seminar									
10.1	“বঙ্গবন্ধুর সামগ্রিক জীবন” শীর্ষক বিষয়ক সেমিনার	16 Aug 2020	BARD	60	10	70	1	70	Officials of BARD & Different Organizations	Mr. Md. Shafiqul Islam Dr. Sk. Masudur Rahman
10.2	“রাষ্ট্রভাষা হিসেবে বাংলাভাষার মর্যাদা প্রতিষ্ঠা ও বাংলা ভাষাকে আন্তর্জাতিক পরিমন্ডলে উপস্থাপনে জাতির পিতার ভূমিকা” শীর্ষক বিষয়ক সেমিনার	29 Sep 2020	BARD	49	8	57	1	57	Officials of BARD & Different Organizations	Ms. Fouzia Nasreen Sultana

SL. No.	Title of the Course	Duration (Days)	Sponsor	Male	Female	Total Participants	No. of Courses	Man-days	Types of Participant	Course Director/Asso. Course Director/Asstt. Course Director
10.3	মুজিব শতবর্ষ উপলক্ষে “দারিদ্র হ্রাসকরণে বঙ্গবন্ধুর ভাবনা:- বর্তমান চিত্র ও সাফল্য গাঁথা” শীর্ষক সেমিনার	03 Jan 2021	BARD	78	86	164	1	164	Officials of BARD & Different Organizations	Dr. Md. Anwar Hossain Mr. Md. Anas Al Islam
10.4	টেকসই উন্নয়নে মানসম্মত শিক্ষা ও সামাজিক মূল্যবোধ শীর্ষক সেমিনার	28 Feb 2021	BARD	30	10	40	1	40	Various School Teachers	Ms. Nasima Akter Ms. Farida Yeasmin
10.5	Seminar Programme on Research Highlights of BARD-2021	31 Mar 2021	BARD	49	10	59	1	59	Officials of BARD & Different Organizations	Dr. Md. Mizanur Rahman Ms. Farida Yeasmin
10.6	পল্লী এলাকায় আধুনিক কৃষি প্রযুক্তি সম্প্রসারণে বার্ডের করণীয় শীর্ষক সেমিনার	22 Jun 2021	BARD	51	8	59	1	59	Officials of BARD & Different Organizations	Mr. Abdullah Al Mamun Dr. Shishir Kumar Munshi
		Subtotal =	Sub Total =	317	132	449	6	449		
11	National Conference									
11.1	53 rd Annual planning conference	19-20 September 2020	BARD	78	13	91	1	182	Officials of BARD & Different Organizations	Dr. Md. Shafiqul Islam Mr. Salah Uddin Ibne Syed Mr. Kamrul Hasan
11.2	Annual Evaluation and Planning Conference	30 Dec 2020	WEINIP Project, BARD	7	182	189	1	189	Officials of BARD & Different Organizations	Ms. Nasima Akter Ms. Farida Yeasmin
		Subtotal =	Sub Total =	85	195	280	2	371		
12	Project Level Courses									
12.1	Training Workshop for the newly appointed data collectors for collecting information about the e-Parishad project's house profile creation software.	08-09 September 2020	E-Parishad Project	22	8	30	1	60	Project Beneficiaries	Ms. Fouzia Nasreen Sultana
12.2	Development of Rural Poultry Industry Through Incubators and Participation of Women In Income Generating Activities (2 nd Batch)	04-05 October 2020	Incubator Project, BARD	1	14	15	1	30	Project Beneficiaries	Mr. Md. Anwar Hossian
12.3	Development of Rural Poultry Industry Through Incubators and Participation of Women In Income Generating Activities (3 rd Batch)	08-09 December 2020	Incubator Project, BARD	1	14	15	1	30	Project Beneficiaries	Mr. Md. Anwar Hossian

SL. No.	Title of the Course	Duration (Days)	Sponsor	Male	Female	Total Participants	No. of Courses	Man-days	Types of Participant	Course Director/Asso. Course Director/Asstt. Course Director
12.4	Training Course on Corona (Covid-19) Situation in Rural Society Health Protection and Care, Food and Nutrition Security and Environmental Development	17-21 January 2021	WEINIP, BARD	0	36	36	1	180	Project Beneficiaries	Ms. Nasima Akter Ms. Farida Yeasmin
12.5	Training Course on Teaching Social Values and Self-care to Achieve the SDGs Goals for Women	14-18 March 2021	WEINIP, BARD	0	32	32	1	160	Project Beneficiaries	Ms. Nasima Akter Ms. Farida Yeasmin
12.6	Training Course on Creating Women Entrepreneurs and Empowerment of Small and Cottage Industries, Garments Design, development of Khadi Industries, Marketing of Various products and parloring skills.	28-25 March 2021	WEINIP, BARD	0	24	24	1	120	Project Beneficiaries	Ms. Nasima Akter Ms. Farida Yeasmin
12.7	Training Course on “Increase computer skills and use of information technology for women entrepreneurs and create information service support staff”	30 May - 10 June 2021	WEINIP, BARD	0	26	26	1	260	Project Beneficiaries	Ms. Nasima Akter Ms. Saifun Nahar
12.8	Training Course on “Legal education and advocacy campaigns to protect the rights of women and children”	07-10 June 2021	WEINIP, BARD	0	30	30	1	120	Project Beneficiaries	Ms. Nasima Akter Ms. Saifun Nahar
12.9	Vermicompost Production & its Use-(1 st – 15 th Batch) 15 Course	September 2020 – January 2021	LMP	96	347	443	15	1329	Project Beneficiaries	BARD Faculty
12.10	Organizing and Financial Management (1 st - 10 th Batch) 10 Course	December 2020 – January 2021	LMP	105	178	283	10	849	Project Beneficiaries	BARD Faculty
12.11	Fruit Cultivation (1 st - 5 th Batch) 05 Course	September – October 2020	LMP	30	118	148	5	444	Project Beneficiaries	BARD Faculty
12.12	Duck & Hen Rearing (1 st - 5 th Batch) 05 Course	October – November 2020	LMP	24	126	150	5	450	Project Beneficiaries	BARD Faculty
12.13	Fish Cultivation (1 st - 5 th Batch) 05 Course	Nov,20	LMP	54	92	146	5	438	Project Beneficiaries	BARD Faculty
12.14	Rice Seeds Production, Collection and Storage (1 st - 5 th Batch) 05 Course	Nov,20	LMP	27	122	149	5	447	Project Beneficiaries	BARD Faculty
12.15	Irrigation & Water Management in Crop Production (1 st - 5 th Batch) 05 Course	Dec,20	LMP	38	112	150	5	450	Project Beneficiaries	BARD Faculty
12.16	Cow Rearing (1 st - 5 th Batch) 05 Courses	Jan,21	LMP	26	123	149	5	447	Project Beneficiaries	BARD Faculty
12.17	Vegetable seed Production & Storage (1 st - 5 th Batch) 05 Courses	Jan,21	LMP	19	130	149	5	447	Project Beneficiaries	BARD Faculty
12.18	Training Course on “Mashroom Cultivation” (03 Courses)	Jun,21	LMP	12	77	89	3	267	Project Beneficiaries	BARD Faculty

SL. No.	Title of the Course	Duration (Days)	Sponsor	Male	Female	Total Participants	No. of Courses	Man-days	Types of Participant	Course Director/Asstt. Course Director
12.19	Training Course on “Modern Agriculture Production” (02 Courses)	Jun,21	Village Organization Project, BARD	120	0	120	2	360	Project Beneficiaries	Mr. Abdullah Al Mamun Mr. Junaed Rahim
12.20	Training Course on “Modern Fish Cultivation” (02 Courses)	Jun,21	Village Organization Project, BARD	120	0	120	2	360	Project Beneficiaries	Mr. Abdullah Al Mamun Mr. Junaed Rahim
12.21	Training Course on “Raising Cattle in Modern way” (02 Courses)	Jun,21	Village Organization Project, BARD	60	40	100	2	300	Project Beneficiaries	Mr. Abdullah Al Mamun Mr. Junaed Rahim
12.22	Training Course on “Duck & Hen Rearing in Modern way” (02 Courses)	Jun,21	Village Organization Project, BARD	0	120	120	2	360	Project Beneficiaries	Mr. Abdullah Al Mamun Mr. Junaed Rahim
12.23	Basic computer application & ICT	30 May - 03 June 2021	Livelihood Improvement Project, BARD	15	15	30	1	90	Project Beneficiaries	Mr. Abdullah Al Mamun Mr. Junaed Rahim
12.24	Training Course on “Union Parishad Management”	25-27 June 2021	Livelihood Improvement Project, BARD	11	3	14	1	42	Project Beneficiaries	Mr. Abdullah Al Mamun Mr. Junaed Rahim
12.25	Basic computer application & ICT	05-17 June 2021	Kowmi Madrasa Project, BARD	30	0	30	1	360	Project Beneficiaries	Mr. Abdullah Al Hussain Mr. Kamrul Hasan
		Subtotal =	Sub Total =	811	1787	2598	82	8400		
Gross Total =					2837	2710	5547	150	40213	

Training/Orientation Programmes Organized by the Faculty Members 2020-21

Sl. No.	Name of the Faculty Members	Number of Course Organized/Training Class/Session								
		Project Level Training	Workshop/Seminar/Conference	Training Courses	Training Session Conducted	Project Level Training Session Conducted	Book Review/Field Study/Session Chairperson	Rappor-teuring	Field Guide	Total
1	2	3	4	5	6	7	8	9	10	11
A.	<u>Director General</u>									
1	Mr. Md. Shahjahan	0	0	0	51	79	0	0	0	130
	Sub-total:	0	0	0	51	79	0	0	0	130
B.	<u>Addl. Director General</u>									
1	Dr. Masudul Hoq Chowdhury	0	0	0	38	31	0	0	0	69
	Sub-total:	0	0	0	38	31	0	0	0	69
C.	<u>Training Division</u>									
1	Mr. Mohammad Abdul Quader	0	0	2	115	17	7	0	0	141
2	Ms. Afrin Khan	4	0	1	48	8	0	1	0	62
3	Ms. Farida Yeasmin	7	6	3	17	15	0	6	1	55
4	Mr. Kamrul Hasan	4	1	2	34	66	0	2	0	109
5	Mr. Faruk Hossain	2	0	4	29	0	0	1	1	37
	Sub-total:	17	7	12	243	106	7	9	2	404
D.	<u>Administration Division</u>									
1	Dr. Md. Shafiqul Islam	0	1	3	71	80	3	0	0	158
2	Mr. Milan Kanti Bhattacharjee	0	0	3	55	0	6	1	0	65
3	Mr. Benzir Ahmed	2	3	2	34	2	0	2	0	45
4	Mr. Md. Abu Taleb	3	0	4	22	0	0	2	3	34
5	Mr. Md. Nazmul Kabir	0	0	0	7	0	0	0	0	7
6	Mrs. Sharmin Shahria	0	0	0	0	0	0	0	0	0
7	Mr. Abdulla-Al-Mamun	1	0	3	16	0	0	3	0	23
8	Mr. Md. Ashik Sarker Lifat	3	0	4	70	6	0	2	0	85
	Sub-total:	9	4	19	275	88	9	10	3	417
E.	<u>Project Division</u>									
1	Mr. Abul Kalam Azad	0	0	2	70	37	3	0	0	112
2	Dr. Md. Kamrul Hasan	0	0	2	43	8	2	0	0	55
3	Ms. Irin Parvin	1	0	1	49	4	3	1	0	59
4	Mr. Junaed Rahim	12	0	3	30	4	0	7	2	58
5	Mr. Anas Al Islam	2	1	3	30	51	0	3	0	90
	Sub-total:	15	1	11	222	104	8	11	2	374
F.	<u>Research Division</u>									
1	Dr. Md. Mizanur Rahman	4	2	2	61	2	5	1	0	77
2	Kazi Sonia Rahman	3	0	2	56	7	0	7	2	77
3	Mr. Md. Mosharaf Hossain Bhuiyan	1	0	0	0	0	0	4	0	5
	Sub-total:	7	2	4	117	9	5	12	2	159

Sl. No.	Name of the Faculty Members	Number of Course Organized/Training Class/Session								
		Project Level Training	Workshop/Seminar/Conference	Training Courses	Training Session Conducted	Project Level Training Session Conducted	Book Review/Field Study/Session Chairperson	Rappor-teuring	Field Guide	Total
G.	<i>Rural Economics & Mgt. Divn.</i>									
1	Mr. Md. Shafiqul Islam	0	1	4	82	0	4	0	0	91
2	Mr. Md. Abdul Mannan	3	0	2	18	0	0	0	0	23
3	Ms. Fouzia Nasreen Sultana	1	1	2	33	2	0	1	0	40
4	Mr. Abdullah Al Hussain	1	0	2	30	3	0	1	0	37
5	Mr. Md. Reaz Mahmud	3	0	3	19	9	0	1	2	37
6	Kazi Foyez Ahmed	0	0	0	0	0	0	0	0	0
	Sub-total:	8	2	13	182	14	4	3	2	228
H.	<i>Rural Education & Social Development Division</i>									
1	Mr. Ranjan Kumar Guha	0	1	4	82	35	4	1	0	127
2	Dr. Sk mashudur Rahman	2	1	2	35	0	0	0	0	40
3	Mr. Md. Tanvir Ahmed	0	0	0	1	0	0	1	0	2
4	Ms. Rakhi Nandi	0	0	0	0	0	0	0	0	0
	Sub-total:	2	2	6	123	35	4	2	0	169
I.	<i>Rural Sociology & Demography Division</i>									
1	Ms. Nasima Akhter	8	5	2	49	11	3	1	0	79
2	Mr. Salah Uddin Ibne Syed	2	1	2	51	43	0	1	0	100
3	Ms. Saifun Nahar	2	0	5	66	11	0	5	2	91
	Sub-total:	12	6	9	166	65	3	7	2	270
J.	<i>Agriculture & Environment Division</i>									
1	Mr. Md. Abdullah Al Mamun	8	1	3	71	25	4	0	0	112
2	Dr. Shishir Kumar Munshi	3	1	2	78	52	2	0	0	138
3	Dr. Md. Anowar Hossain Bhuyan	2	1	2	76	91	0	0	0	172
4	Dr. Bimal Chandra Karmakar	4	0	3	132	46	0	1	1	187
5	Mr. Md. Babu Hossain	2	0	3	21	83	0	2	0	111
6	Mr. Md. Saleh Ahmed	2	0	4	15	51	0	3	0	75
7	Mr. Md. Anwar Hossain	3	0	1	21	28	0	0	0	53
8	Mr. Md. Zamil Uddin	1	0	0	3	19	0	2	0	25
	Sub-total:	25	3	18	346	370	16	12	1	791
K.	<i>Rural Administration & Local Government Division</i>									
1	Dr. Md. Abdul Karim	0	2	3	65	2	3	0	0	75
2	Ms. Azma Mahmuda	3	0	5	38	3	0	0	2	51
	Sub-total:	3	2	8	103	5	3	0	2	126
Grand Total (A+B+C+D+E+F+G+H+I+J+K) :		98	29	100	1866	906	59	66	16	3137



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