Final Report

on

Contingency Emergency Response Component (CERC) - Emergency Action Plan (EAP) Evaluation

Acknowledgements

The Center for Environmental and Geographic Information Services (CEGIS), a Public Trust under the Ministry of Water Resources, Government of Bangladesh, is grateful to Livestock and Dairy Development Project (LDDP) of the Department of Livestock Services (DLS) for awarding the Contract of consultancy services for "CERC-EAP Evaluation Project".

CEGIS greatly acknowledges the immense support of Mr. Md. Abdur Rahim, Project Director (Joint Secretary), LDDP, Dr. Md. Golam Rabbani, Chief Technical Coordinator (CTC), Dr. ABM Mustanur Rahman (DPD) and Kh. Zahir Hossain, Senior M&E Specialist, LDDP in conducting the study. CEGIS is thankful to LDDP officials for their kind support and cooperation in providing relevant and existing documents for accomplishing the Study. In the end, CEGIS deeply appreciates and acknowledges the concerns and perceptions of the local people who participated and provided data for this study.

Abbreviations and Acronyms

CEGIS	Center for Environmental and Geographic Information Services
CERC	Contingency Emergency Response Component
СТС	Chief Technical Coordinator
DG	Director General
DGHS	Director General of Health services
DLS	Department of Livestock Services
DPD	Deputy Project Director
EAP	Emergency Action Plan
DLO	District Livestock Officer
FGD	Focus Group Discussions
GDP	Gross Domestic Product
GIS	Geographic Information Services
ІСТ	Information Communications Technology
IHR	International Health Regulations
НН	Household
KII	Key Informant Interview
LDDP	Livestock and Dairy Development Project
LEO	Livestock Extension Officer
LFA	Livestock Field Assistant
LSPs	Livestock Service Providers
MCSM	Milk Cream Separator Machines
M&E	Monitoring and Evaluation
MVCs	Mobile Veterinary Clinics
0 & M	Operation and Maintenance
OECD	The Organization for Economic Co-operation and Development
PD	Project Director
PHEIC	Public Health Emergency of International Concern
PMU	Project Management Unit
RFP	Request for Proposal
ULO	Upazila Livestock Officer
UNO	Upazila Nirbahi Officer
WHO	World Health Organization

Table of Contents

Ack	nov	wled	lgements	i
Abb	orev	viati	ons and Acronyms	iii
List	of'	Tab	les	ix
List	of	Figu	ıres	X
Exe	cut	ive S	Summary	xiii
1.	Int	trod	luction	1
1	.1	Pre	amble	1
1	.2	Ban	ngladesh Context: Dairy and Poultry	1
1	.3	Evo	olution of CERC-EAP	1
1	.4	CEF	RC-EAP Activities	2
1	.5	CEF	RC-EAP Evaluation Study	4
	1.5	5.1	Objectives of the Study	4
	1.5	5.2	Scope of Assignment	5
	1.5	5.3	Limitations and Challenges	6
2.	Ар	pro	ach and Methodology	7
2	.1	App	proach	7
2	.2	Met	thodology	7
	2.2	2.1	Steps for Evaluation	7
	2.2	2.2	Framework for Evaluation Study	8
	2.2	2.3	Evaluation of Achievement	8
	2.2	2.4	Assessment and Evaluation	8
	2.2	2.5	Sampling Design and Framework	
	2.2	2.6	Secondary and Primary Data Collection	
	2.2	2.7	Data Collection Instrument Development	21
	2.2	2.8	Research Associate Recruitment, Training and Field Test	21
	2.2	2.9	Quality Checking and Control	22
	2.2	2.10	Data Stocktaking, Cleaning and Compilation	22
2	.3	C01	VID- 19 Protocol	22
2	.4	Dat	a Visualization	23
2	.5	Inst	titutional Engagement	23
3.	Pr	ofile	e of the Farm Households	25
3	.1	Intr	roduction	25

3.2	2 Ow	nership of Farm by Division	.25		
3.3	B Ag	Age Structure of the Farm Owners25			
3.4	Re	Religious Status			
3.5	5 Ed	ucational Status	.27		
3.6	5 Oc	cupational Pattern	.27		
4.]	Proce	ss Evaluation	. 29		
4.1	Int	roduction	.29		
4.2	2 Ap	proach and Method	.29		
4.3	B Act	tivation, approval and implementation of CERC-EAP	.29		
4.4	ł Pro	ocurement and Distribution	.32		
4.5	5 Cas	sh Transfer	.35		
	4.5.1	Implementation Timeline	.35		
	4.5.2	Implementation Process	.35		
	4.5.3	Beneficiaries selection, verification and finalization	.36		
	4.5.4	Cash disbursement	.38		
4.6	6 Fin	ancial Management	.40		
4.7	Re:	ntal cost for Milk/Eggs Van to facilitate supply chain	.41		
4.8	B Mo	nitoring and Evaluation (M&E)	.41		
	4.8.1	Verification of CERC-EAP Cash Beneficiaries	.41		
	4.8.2	Assessment	.42		
4.9) Gri	evances redressing mechanism of CERC-EAP	.43		
4.1	l0 Soc	cial and Environmental Safeguards	.44		
4.1	1 Co	mmunication	.45		
4.1	2 Ov	erall Assessment of Process Evaluation	.45		
5. I	Impa	ct Evaluation	.47		
5.1	Int	roduction	.47		
5.2	2 Cas	sh Transfer	.47		
!	5.2.1	Sustaining the Stock Size	.47		
!	5.2.2	Farm Production and Sale Management	.49		
!	5.2.3	Gender Segregated Analysis on Production and Sale Management	.55		
5.3	8 Ma	ss Media Communication Program	.60		
!	5.3.1	Status of Beneficiaries who listen to bulletin on COVID-19	.60		
!	5.3.2	Media Coverage of Awareness Program	.60		
	5.3.3 Covid	Benefits of Awareness Program to understand animals and birds do not transmit the -1961			

		4 Benefits of Awareness Program to inform Covid-19 virus spread human to human tact	62
	5.3. resi	5 Impact to know that protein intake from animal source food (meat, milk, eggs) increa lience by people perception	
	5.3.	6 Overall Benefits of Awareness Programs	62
5	5.4 N	Ailk Cream Separator Machines	63
	5.4.	1 Product Diversification	63
5	5.5 I	Deep Freezer	65
5	5.6 F	Rental Vehicle Services	65
	5.6.	1 Milk Selling through Rented Vehicle	66
	5.6.2	2 Meat Selling through Rented Vehicle	66
	5.6.	3 Egg Selling through Rented Vehicle	66
	5.6.4	4 Overall Benefits of Rented Vehicle Service	66
5	5.7 I	mpact of Sanitization Packages	67
5	5.8 I	mpact of Mobile Veterinary Clinic	67
5	5.9 (Contextualizing the Impacts on the Vulnerabilities of Livestock Farmers	68
	5.9.	1 Impact on Small Farmers	68
	5.9.2	2 Impact on Female Livestock Farmers	69
	5.9.	3 Impact on Transgender	72
6.	Eva	luation of Satisfaction	73
6	5.1 I	ntroduction	73
6	5.2 F	Process of Beneficiary Satisfaction	73
6	5.3 F	Results of beneficiary satisfaction	74
	6.3.	1 Overall Results	74
6	5.4 A	Activity-wise Results	74
	6.4.	1 Awareness Program	74
	6.4.2	2 Cash Transfer	75
	6.4.	3 Rental Vehicle	77
	6.4.	4 Producer Group	79
6	5.5 E	Deep Freezers	81
6	5.6 S	atisfaction from FGD Findings	83
7.	Eva	luation of the Achievements	85
7	7.1 I	ntroduction	85
7	7.2 E	Defining the Evaluation Criteria	85
7	7.3 F	Performance of the CERC-EAP	86

8.	Le	ssons Learned and Recommendations		
8	3.1	Lessons Learned from the CERC-EAP		
8	3.2	Recommendations		
Ap	pen	dices		
Ар	Appendix I: Data Collection Tools and Instruments97			
Ap	Appendix II: Annual Procurement Plan for EAP (2020-21)129			
Ap	Appendix IV: User Manual Kobo Tool Box133			
Ap	Appendix V: Output Maps on KoBo based data of Department of Livestock Services (DLS)139			
Ap	Appendix VI: Term of Reference (ToR)143			
Ap	Appendix V: Comments and Response Matrix155			

List of Tables

Table 1.1: Targeted Compensation package for dairy farmers	3
Table 1.2: Targeted Compensation Package for Poultry Farmers	3
Table 2.1: Criteria wise Operation of the Framework	8
Table 2.2: Description of the Indicators	9
Table 2.3: Issues for Expecting Outcomes of the Indicators	10
Table 2.4: Expressions for Quality of Services by Five Points Rating Scale	12
Table 2.5: Indicators on Beneficiary Satisfaction and Methods of Data Collection	12
Table 2.6: Distribution of Sample Size by Farm Type for Households Surveyed	15
Table 2.7: Upazila wise Actual Sample Size in Livestock Category	16
Table 2.8: Distribution of FGDs conducted	17
Table 2.9: Distribution of number of KIIs conducted	17
Table 2.10: Primary Data Collection Method	20
Table 2.11: Parameters for formulating Questionnaires and Checklists	21
Table 3.1: Ownership of Farm by Division	25
Table 3.2: Age Structure of the Farm Owners	26
Table 3.3: Distribution of Dairy and Poultry Farmers by Division and access to other O (Multiple or Single)	-
Table 4.1: Disbursement of 1ST and 2nd tranche (February 17 2021 and June 27, 2021 re	
Table 4.2: Summary Expenditure Report for CERC-EAP	
Table 4.3: Overall result of Process Evaluation	45
Table 5.1: Size of Sustained Dairy Stock	
Table 5.2: Size of Sustained Stock- Broiler	
Table 5.3: Size of Sustained Stock -Duck	
Table 5.4: Size of Sustained Stock- Sonali	
Table 5.5: Size of Sustained Stock -layer	
Table 5.6: Overall Benefits of Awareness Programs to the Beneficiary Level	63
Table 5.7: Distributional Matrix of MCSMs	63
Table 6.1: Taguchi S/N Ratio for Cash Transfer Activity under CERC-EAP	76
Table 6.2: Taguchi S/N ratio for rental vehicle activity under CERC-EAP	78
Table 6.3: Distribution of Milk Cream Separators	79
Table 6.4: Taguchi S/N ratio for Producer Group Activity under CERC-EAP	
Table 6.5: Taguchi S/N ratio for Deep Freezers activity under CERC-EAP	
Table 7.1: Definitions of Evaluation Criteria	
Table 7.2: Overall Results of Performance Evaluation	

List of Figures

Figure 2.1: Flow Diagram of Methodology for Conducting Study	7
Figure 2.2: Flow Diagram of the Framework for the Process Evaluation	8
Figure 2.3: Study Area Map for the Evaluation Study	14
Figure 2.4: Training Session on Data Collection	22
Figure 2.5: FGD Conducted during Field Test	22
Figure 3.1: Religion of the Dairy Farm Owners	26
Figure 3.2: Religion of the Poultry Farm Owners	27
Figure 3.3: Level of Education of the Farm Owners	27
Figure 4.1: Activation, approval and implementation bodies of CERC-EAP	30
Figure 4.2: Implementation milestones of the CERC-EAP	31
Figure 4.3: Planned and Implemented Timeline of Mass Media Communication	33
Figure 4.4: Planned and Implemented Timeline of Health Safety Items	34
Figure 4.5: Planned and implemented timeline of MVCs	34
Figure 4.6: Planned and Implemented Timeline of MCSM	34
Figure 4.7: Planned and Implemented Timeline of Deep Freezers	35
Figure 4.8: Planned and Implemented Timeline of Cash Transfer Activity	35
Figure 4.9: Beneficiary Selection and finalization Committees	35
Figure 4.10: Planned and Implemented Timeline of the Rental Vehicle Service	41
Figure 4.11: Plotting coordinates in maps (red dots shows positions)	42
Figure 4.12: Plotting coordinates by union boundaries	43
Figure 4.13: GRM Framework	44
Figure 4.14: Results of process evaluation	46
Figure 5.1: Dairy Production in Three Periods	50
Figure 5.2: Dairy Sales in Three Periods	51
Figure 5.3: Poultry Production in Three Periods	52
Figure 5.4: Egg Production of Layer Categories in Three Periods	53
Figure 5.5: Poultry Sales in Three Periods	54
Figure 5.6: Egg Sales of Layers in Three Periods	55
Figure 5.7: Dairy Production for Male and Female Farmers	56
Figure 5.8: Dairy Sales for Male and Female Farmers	57
Figure 5.9: Average Production in Poultry for Male and Female Farmers across the Subcategories	58
Figure 5.10: Average Sales in Poultry for Male and Female Farmers across the Subcategories	58
Figure 5.11: Average Production of Eggs in Dozens for Both Gender	59
Figure 5.12: Average Sales of Eggs in Dozens for Both Gender	60

Figure 5. 13: Case Study on MCSM Receiver	64
Figure 5.14: People Selling Milk and Eggs through Rental Services	.66
Figure 5.15: Benefits of Rental Vehicle Service	.67
Figure 6.1: Overall Satisfaction for CERC–EAP Evaluation Study	.74
Figure 6.2: Satisfaction on Awareness Program	.75

Executive Summary

The Contingency Emergency Response Component (CERC) - Emergency Action Plan (EAP) activated on 09 June 2020. The Department of Livestock Services (DLS) of the Ministry of Fisheries and Livestock (MoFL) is responsible for implementation of the CERC-EAP under the Livestock and Dairy Development Project (LDDP). There were seven activities implemented under the CERC-EAP. The main aim of CERC-EAP was to support and compensate livestock farmers from the losses incurred due to the COVID-19 Pandemic.

The CERC program closed on 08 September 2021. The PMU of DLS, decided to undertake evaluation of the CERC-EAP to understand its (i) impacts/results achieved; (ii) quality of implementation process; and (iii) satisfaction of beneficiaries. The CERC-EAP evaluation study conducted following the both quantitative and qualitative approaches. In conducting this study, a total of 2037 households' survey completed following a multi stage sampling framework. This survey was conducted through KoBo Tool Box whereas 42 research associates worked at 42 Upazila of 21 districts of 8 divisions. Besides, 147 nos. Key Informant Interview (KII), 82 Focus Group Discussion (FGD) and 30 case studies conducted for qualitative data collection. In addition, secondary data collected through literature review and data inventory of PMU. A standard procedures of quality control mechanism followed for ensuring the quality of both quantitative data. Based on the findings of the quantitative and qualitative data, process, impact and satisfaction evaluation completed.

The activation and approval of the CERC-EAP were not easy because of: first, it was the first time such a project in Bangladesh; and second, the country has no clear-cut guidelines to deal with or support in such as pandemic situation. Eventually, although the project was activated immediately following the request of the government of Bangladesh to the World Bank, it took a long time to activate a separate CONTASA Account for the CERC-EAP project. However, all activities were initiated before the account opening.

The procurement was carried out in a transparent way with clear documentation, following the national procurement regulation. However, the distribution or the execution of activities to the committed time was delayed. The reasons that hampered timely completion of activities of distributions of goods are: (i) Nation-wide lockdown/shutdown hampered all usual movement thus activity become slower, (ii) The shut-down situation also delayed the global shipment, which slowed down the import and caused timely distribution, (iii) Restriction on mobility due to the shutdown restricted evaluation committee members sit, discuss and decide on timely, and (iv) Some PMU and Evaluation members were also infected by COVID 19, which made the process slow down.

Of seven activities, the Cash Transfer to the farmer was the most successful and satisfactory one. The listing of beneficiaries was carried out through two committees: (i) Upazila Beneficiaries Selection and Implementation Committee (UBSIC) at the local level, headed by the local Upazila Nirbahi Officer (UNO), and (ii) Central Distribution and Coordination Committee (CDCC) at the central level. The local level listing was carried out by the locally recruited Livestock Service Provider (LSP). This initial list was checked through the coordinated process between UBSIC and CDCC. Despite such a rigorous listing process, the PMU found a major error in the list in the context of NID and mobile numbers. Eventually, PMU started to cross-check the entire list through physical verification. This list was also verified through the money sending agencies (mobile banking). Following this rigorous process, cash was transferred in both the first and second tranche. However, the project had to cancel the third tranche apprehending the soaring political influence of the inclusion of farmers of choice in the list. As the evaluation found, cash was sent successfully through mobile banking and had to postpone sending money through the bank as it took a long time for disbursement. Thus, 597,249 beneficiaries out of

the targeted 620,000, received cash successfully. The targeted female beneficiaries were 25%, which was not fulfilled (18.36%) since the implementation manual set the same selection criteria for both men and women.

The financial management of the project was excellent. The overall burnt rate of CERC-EAP budget is around 92.13%. The project-level monitoring and evaluation was an excellent activity. However, the use of KoBo tool for monitoring although gave a very good opportunity for officials, it encountered a couple of limitations. Low bandwidth to collect accurate coordinates was the main reason that hampered to collect accurate levels. The CERC-EAP did not have any GRM, rather it was delegated to the already active GRM in the LDDP project. This team worked well in resolving grievances.

The seven (7) activities performed under the CERC-EAP, whereas awareness program was one of them. With the outbreak of the COVID-19 pandemic, a number of rumors spread through social media. People in large scale stopped to consume meat and dairy products. People thought that Covid-19 could be spread through animal contact in which they stopped consuming. As a result, the market price of dairy and poultry products disrupted the value chain of those products interrupted. About 83.7% of beneficiaries received messages on COVID- 19. Messages were conveyed through different print and electronic media. The TVC Monologue, Dialogue, Documentary, Talk show, scrolling, drama and documentary broadcast to build awareness for avoiding misconception. About 93.1% of respondents said that they were benefitted from the awareness program to understand animals and birds do not transmit the COVID-19 virus. About 50% acknowledged that those programs helped to avoid misconception on the poultry products and about 23% changed their dietary habits and started consuming dairy and milk products.

The cash transfer to compensate farmers to sustain their farming because of incurred losses during the pandemic was of the major activities. There were 6.2 lakh targeted beneficiaries whereas 597,249 (including female farmers) beneficiaries from both dairy and poultry received the cash incentives. It was remarkable in the history of Bangladesh, as it was first time in this country provided cash incentives direct to the beneficiaries through Bkash and Nagad.

The success story of this cash incentives program helped livestock farmers in sustaining farms and managing the production and sales. On the other hand, small farmers including female and transgender people became happy with the incentives that made trust to the DLS as they helped during the extreme condition because of Covid. Additionally, farmers used the incentives in farm management, buying fodder, repayment of debt and family expenses.

The provision of Milk Cream Separator Machines (MCSMs) by the CERC-EAP was one of the innovative ideas to pave the way for diversification in the dairy sector. To facilitate this support, the CERC-EAP distributed 1500 MCSMs of different capacities (spanning from 50 to 500 lph) among the dairy farmers, producer groups, or associations in 3 categories. The facility of MCSMs opened the gateway of business expansion considerably and lifted the fear of uncertainty in milk selling during any kind of emergency. Hence, farmers expressed their utmost gratitude and contentment towards the Department of Livestock Service and the Government bringing such handy and up-to-date equipment to the doors of their farming house.

Under the CERC-EAP they received sanitization packages for ensuring protection. The sanitization package included masks, PPE, and hand sanitizers. The Livestock officials mentioned that they faced challenges to receive the sanitization packages. But at the same time, it helped them to motivate officials to work at the field level. The MVC was a crucial activity undertaken that created a huge positive impact on the rural farming sector. The Department of Livestock has hundreds of veterinary doctors and a vast team that provides regular services at the district, Upazila, and field levels.

Vaccinations, treatment, and medicines for numerous animal ailments are also provided free of charge by the Government

On the other hand, the rented vehicle service provided a huge support in market access and sustaining the sale during the period of lockdown. About 23% farmers used this service for reducing the loss followed by 17% for managing income and 14% for getting access to the market.

One of the main component was to identify satisfactory status of beneficiaries regarding different activities under the CERC-EAP evaluation study. For satisfaction analysis likert chart used and eventually these were used in Taguchi Signal to Noise Ratio model. Here overall satisfaction on project activity were found 97.4% including both good and excellent categories. Apart from that activity segregated beneficiary also collected from the respective beneficiary. Here satisfaction for all activities are found more than 95% in excellent and good category except Deep Freezer category. Here 82.9% respondents reported in excellent and good category. Respondents ensured that they expected vaccine refrigerator instead of deep freezer that consequences lower satisfaction in compare to other activities. Besides average satisfaction were carried out using Taguchi Signal to Noise Ratio and compared with PMU data and CEGIS's assessment accordingly.

The performance shown according to the 1-5 scores whereas 1 is defined as 'Insignificant', 2 as 'Low', 3 as 'Moderate', 4 as 'High' and 5 as 'Very High'. The overall rating (average) of the CERC-EAP is measured as 4. It indicates that the performance CERC-EAP is 'High' in terms of relevance, effectiveness, efficiency, impacts and sustainability of all activities. Regarding all aspects of these activities, DLS faced various challenges to implement the activities considering the situation occurred at that time. However, in conducting all other activities, DLS learned different things and solved many problems to tackle the emergency situation. The lessons learned throughout the project would be reflected in the implementation of other projects of DLS and other stakeholders. A set of recommendations and implementation plan suggested based on the findings of the CERC-EAP evaluation study.

1. Introduction

1.1 Preamble

The World Health Organization (WHO) was notified from Wuhan, China on 31 December 2019 that an outbreak of a disease with severe respiratory symptom which the Chinese authority confirmed as corona virus. On 30 January 2020, the WHO declared the viral outbreak a Public Health Emergency of International Concern (PHEIC) under the International Health Regulations (IHR2005). WHO named the disease as COVID-19, which stands for "corona virus disease 2019". This very fast-spreading disease appeared as a pandemic nature and caused serious health threat worldwide. To contain the public health threat, almost all countries including Bangladesh enforced a variety of measures.

The COVID-19 inflicted havoc in many countries and became one of the biggest threats to the global economy and financial markets. The Organization for Economic Co-operation and Development (OECD) in its Interim Economic Outlook warned the impact of the COVID-19 outbreak in the world's economy might be extremely severe. The UN warned that COVID-19 measures could cause a global food shortage. However, the adverse impact of COVID-19 measures on dairy and poultry sectors in Bangladesh context is provided in the following section.

1.2 Bangladesh Context: Dairy and Poultry

COVID-19 pandemic had exerted a significant adverse impact on the dairy and poultry supply chain. The lack of transportation facilities and the absence of value chain actors, an unexpected price down at the producer level led them throw away their farm milk onto the street as an act of a symbolic protest as there were no alternative ways to sell.

Bangladesh Dairy Farmers' Association claimed that about 12–15 million litres of milk were remained unsold, which caused an estimated daily loss of BDT 570 million (6.7 million USD). On the other hand, Bangladesh Poultry Industries Central Council estimated that the figure of the loss in poultry sector was at least BDT 115 billion (1.35 billion USD) within the short period of 20th March to 4th April 2020 (Rahman, M. S., & Das, G. C, 2021)¹. As a result, COVID-19 imposed a great threat to the food security situation in the country and the livestock production system as a whole incurred substantial loss. The situation might accelerate the arising food crisis due to the collapse of the livestock sector during the COVID-19 pandemic and turn it into a humanitarian catastrophe (Financial Express, 2020).

1.3 Evolution of CERC-EAP

The Government of Bangladesh (GoB) reported its first case of COVID infection on March 8, 2020. Considering the graved situation in the country, the Government adopted some measures to contain the consequences and to protect the people from getting transmitted. The measures included the restricted transportation and movement that created home-locked situation of people. Besides, nationwide lockdown was imposed and banned the social and cultural programs on March 26, 2020 continued for several weeks had inflicted a serious problem in livestock production system and marketing of produces (milk, meat and eggs) in the country. Restrictions of movement and banning of transports caused a shortage of animal feed and limited livestock support services. Almost shut-

¹ Rahman, M. S., & Das, G. C. (2021). Effect of COVID-19 on the livestock sector in Bangladesh and recommendations. Journal of Agriculture and Food Research, 4, 100128.

down situation of hotels, restaurants, fast-food outlets for dairy and poultry products and also restriction on social and cultural programs caused reduced market demand for milk, meat and eggs.

The measures to contain the COVID-19 pandemic caused economic hardship for the farmers at the grassroots. Many were forced to quit the business and sold out their cows at a minimum price due to lack of market access and decreased sale with decreased demand. In that situation the GoB decided to compensate and stand beside the livestock farmers to protect from running out of business due to losses incurred from the COVID-19 pandemic situation. Therefore, it was felt utmost urgency to supply production inputs, to take steps to maintain the supply chain and to facilitate transportation and preservation of perishable livestock products. In line with this realization, thus, GoB decided for Contingent Emergency Response Component (CERC) for livestock farmers under Livestock and Dairy Development Project (LDDP²) with the financial support of World Bank. An Emergency Action Plan (EAP) was prepared with a comprehensive set of emergency response activities for implementing the CERC. The main aim of CERC-EAP was to support and compensate livestock farmers from the losses incurred from the COVID-19 Pandemic measures.

Activation and Approval of CERC- EAP

The WB reviewed and activated CERC-EAP on 09 June 2020. The Department of Livestock Services (DLS) of the Ministry of Fisheries and Livestock (MoFL) is responsible for implementation of the CERC-EAP under LDDP. Within DLS, Project Director (PD) (Joint Secretary) deputed from MoFL is in charge of overseeing project implementation with support from Chief Technical Coordinator (CTC), Deputy Project Directors (DPDs) and a number of technical specialists under the Program Management Unit (PMU). In the field Project Implementation Units (PIUs), at the Division level, the Directors with the support from District Livestock Officers (DLOs), Upazila Livestock Officers (ULOs), Livestock Extension Officers (LEOs), Livestock Field Assistants (LFAs) and Livestock Service Providers (LSPs) are responsible for project implementation as well as broader monitoring of CERC-EAP in 465 upazilas of 61 districts. The DLS ensured:

- Delivery of the emergency activities outputs and the attainments of outcomes by facilitating coordination amongst the governmental agencies and institutions participating in the implementation and by addressing coordination issues as they arise;
- (ii) Reviewing progress reports as submitted by the Project Director (PD-LDDP) and take action thereon; and
- (iii) Providing guidance as required.

1.4 CERC-EAP Activities

The CERC-EAP activities under the LDDP of DLS are as follows:

a) Mass media communication: COVID-19 related messages on livestock issues to the stakeholders all over the 61 districts (465 Upazilas) of Bangladesh (farmers, processors and consumers) reached through print, electronic and social media. The messages were broadcast to build mass awareness on reasons for corona virus contamination, protein intake from livestock product (meat, milk, egg) to increase resilience against any

² The LDDP is an ongoing project to improve productivity, market access, and resilience of small-holder farmers and agroentrepreneurs operating in selected livestock value chains in target areas. The project was funded from World Bank (WB) and non-bank sources in US\$ millions. In response to the request of GoB, WB reallocated fund for activating CERC.

infectious virus including the COVID-19. The media activity started in April, 2020 and conveyed till June, 2021.

- **b)** Sanitization package program for reducing the risk of COVID-19 in the livestock chain and associated works. All DLS staff involved in CERC-EAP were distributed with surgical masks, surgical hand gloves, antiseptic disinfectant and bleaching powder under the sanitization package program in 465 Upazilas of 61 districts by January 31, 2021.
- c) Mobile Veterinary Clinics (MVCs): To keep public veterinary and key animal production services available to the farmers in the wake of total or partial lockdowns, 61 MVCs were procured for each of 61 Sadar Upazilas despite various problems arises from the different actors in the process of decision, perception, procurement and distribution. Veterinary Clinic services were felt as an essential service to the livestock farmers. Therefore, overall veterinary services were kept running from the ULO offices despite delay in procurement and distribution process of MVCs.
- **d) Cash transfer for business continuation:** The CERC-EAP proposed to compensate dairy and poultry farmers in the country for business continuation and in order to maintain a basic level of milk, meat and egg production and to maintain the productive cattle and poultry base for the recovery period.

As per PMU of CERC-EAP the dairy and poultry farmers of different categories were provided with cash support as shown in the following consecutive two tables (**Table 1.1** and **Table 1.2**), respectively.

Farm category	Cash support against no. of cows	Number of farm household (HH) supported	Amount/ Cow(Tk.)	Total paid (Lac Taka)	BDT per farm household (HH)	Compensation against total milking cows
2-5 cows	2	300,000	5,000	30,000	10,000	600,000
6-9 cows	3	100,000	5,000	15,000	15,000	300.000
10-20 cows	4	20,000	5,000	4,000	20,000	80,000
	Sub-Total:	420,000		49,000		980,000

 Table 1.1: Targeted Compensation package for dairy farmers

Source: Internal Evaluation Report, 2021

Table 1.2: Targeted Compensation Package for Poultry Farmers

Poultry category	Farm category based on number of birds	Total (Lac Taka)	Nos. of farm HH	BDT per farm HH
Sonali Chicken	100-500	900	20,000	4,500
	501-1000	810	12,000	6,750
	1001 and above	900	8,000	11,250
Sub-Total:		2610	40,000	
Broiler Chicken	500-1000	4500	40,000	11,250
	1001-2000	4388	26,000	16,875
	2001 and above	3150	14,000	22,500
Sub-Total:		12038	80,000	
Layer Chicken	200-500	4050	36,000	11,250
	501-1000	4050	24,000	16,875

Poultry category	Farm category based on number of birds	Total (Lac Taka)	Nos. of farm HH	BDT per farm HH
	1001 and above	2250	10,000	22,500
Sub-Total:		10350	70,000	
Duck	100-300	169	5,000	3,375
	301-500	203	3,000	6,750
	501 and above	135	2,000	6,750
Sub-Total:		507	10,000	
TOTAL:			200,000	

Source: Internal Evaluation Report, 2021

- e) Milk Cream Separator Machines (MCSM) with different capacities distributed among the village milk collection centers/producers' organizations and dairy farmers: A total 1500 MCSM with a capacity ranging from 50-500 liter per hour (lph) were distributed. Out of 1500 MCSM, (i) 400 with a capacity of 350-500 lph, (ii) 500 with a capacity of 150-200 lph, and (iii) 600 with a capacity of 50-100 lph were distributed respectively among the (i) milk collection centers/producers' organizations, (ii) larger dairy farms and (iii) medium dairy farms by local DLS offices in order to separate the cream from the fresh milk and to facilitate processing the milk cream (30% fat) into ghee (99.9% fat) or butter (85% fat). The MCSMs were distributed by the PMU to District Livestock Offices and subsequently from District offices to the Upazila Livestock Offices and to the beneficiaries (milk collection centers/producers' organizations, larger and medium dairy farms).
- f) A total 530 freezers with a capacity of 300-500 liter were distributed, 1 for each Upazila and/or District Livestock Offices or other relevant offices, as required to ensure availability of sufficient doses of medicines and vaccines and as such maintain animals in a healthy and productive state during COVID-19 crisis. Procurement and distribution of 530 deep freezers was completed on 31 January, 2021. Due to lock down situation distribution of deep freezers taking some time from supplier end.
- **g) Rental vehicle services provided to manage supply chain in 61 districts (10 vans/district).** Rental mobile milk and egg selling vehicles were arranged so that farmers can use these vehicles to promote community milk and egg sales chain in the towns and cities for home locked consumers.

1.5 CERC-EAP Evaluation Study

The CERC program closed on 08 September 2021. The PMU of DLS, therefore, decided to undertake evaluation of the CERC-EAP to understand its (i) impacts/results achieved; (ii) quality of implementation process; and (iii) satisfaction of beneficiaries and assess the challenges encountered to support the beneficiaries, good practices and lessons learned during planning through implementation of the project.

1.5.1 Objectives of the Study

Broader Objective

The overall objective of the assignment/study is to assess the degree to which CERC component of LDDP has (i) achieved impact even if they differ from its first intended objective; (ii) implemented its activities according to design and process set in different guidelines and implementation manuals (it includes the quality of implementation); and (iii) met the satisfaction of beneficiaries. Besides, this

study identifies challenges, strengths, lessons and recommendations for potential future emergency activities in the livestock sector to be implemented by the DLS.

Specific Objective

The specific objectives of the assignment/study include the followings:

- i. To assess the impacts/results of emergency activities implemented under the CERC -LDDP;
- ii. To review actual results against the agreed action plan of the CERC;
- iii. To assess the satisfaction of beneficiaries with the project activities;
- iv. To identify critical deviations in CERC-EAP implementation and compliance to key project rules defined for implementation
- v. To identify and analyze factors responsible for such deviations; and
- vi. To identify issues and strengths, draw lessons based on the overall assessment, and provide recommendations for future CERC in livestock sector.

1.5.2 Scope of Assignment

Broader Scope of Assignment

In order to meet the objectives of the assignment of CERC- EAP evaluation, the following services to be provided:

- i) Reviewing of secondary documents, such as project document, project appraisal document, CERC-EAP field manual, semi-annual RF reports, bi-weekly reports and reports of CERC beneficiary satisfaction survey conducted by PMU;
- ii) Proposing statistically justified sampling frame for quantitative and qualitative data collection tools on different activities and to assess beneficiaries' satisfaction;
- iii) Conducting HH surveys to get data/information to validate and triangulate regular collection of routine quantitative information related to project implementation;
- iv) Conducting discussion with the project staff and local implementers;
- v) Conducting Focus Group Discussions (FGDs), Key Informant Interview (KII), and individual interview including case studies for qualitative information; and
- vi) Conducting of a national level workshop on finalized evaluation report for disseminating initial findings to all stakeholders including preparing briefing documents.

Specific Scope of Assignment

- i) How well the CERC component has been working, including time for EAP preparation, CERC activation, DA opening and possible waiver requests;
- ii) The extent the CERC component has been implemented as designed;
- iii) The extent to which implementation of the various CERC activities was timely compared to actual field needs;
- iv) Whether the CERC component was accessible and acceptable to its target population;

1.5.3 Limitations and Challenges

The activities of CERC-EAP were conducted in 465 Upazilas in 61 districts of Bangladesh. But statistically justified sample size for study area covers 42 Upazilas under the sample 21 districts of eight divisions. The study included survey of a number of samples for quantitative data collection. Besides, a number of FGDs, KIIs, and case studies were conducted with beneficiaries and other relevant stakeholders. In course of study period, a new variant (i.e. Omicron) of COVID-19 corona virus was prevailing in the country. Study period was stipulated for three months that considered as the major limitation, and collecting data was very challenging by accumulating beneficiaries and other stakeholders. Having with the challenges and limitations of the study, all activities conducted following the health protocol for Covid-19 as omicron started spreading when the fieldwork started.

2. Approach and Methodology

2.1 Approach

As per the ToR of CERC-EAP evaluation, the evaluation for different activities was carried out through collection of data from the beneficiaries and stakeholders. It followed the participatory and mixed approach for required data collection.

The evaluation of the CERC-EAP activities was carried out to explore the following three kinds of assessment:

- i. **Process Evaluation:** Process evaluation was conducted to explore the procedure of CERC-EAP implementation and compliance, including the progress, deviations from directives in the CERC-EAP implementation manual. The challenges related to the project design and implementation, lessons learned and suggestions for future prospects identified through process evaluation.
- ii. **Evaluation of Impact:** Impact evaluation was conducted to assess the effectiveness of the implemented activities related to businesses, beneficiaries and stakeholders by paying particular attention to women beneficiaries.
- iii. **Evaluation of Beneficiaries' Satisfaction:** Satisfaction evaluation is being conducted to evaluate beneficiaries' level of acceptance and satisfaction with the project support provided through CERC-EAP program of LDDP.

2.2 Methodology

The methodology of the evaluation study are as follows:

2.2.1 Steps for Evaluation

In the following **Figure 2.1**, steps for evaluation are given. It includes three steps: firstly, understanding and preparation of evaluation indicators; secondly, determining appropriate data collection method; and finally, data collection, analysis and report preparation.

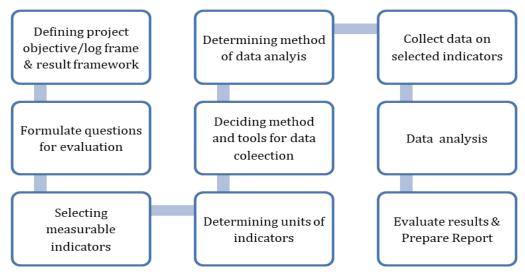


Figure 2.1: Flow Diagram of Methodology for Conducting Study

2.2.2 Framework for Evaluation Study

The following criteria were applied in conducting evaluations for this evaluation study is shown in the following **Figure 2.2**.



Figure 2.2: Flow Diagram of the Framework for the Process Evaluation

The following **Table 2.1** shows the framework, which is used in this study to analyse the performance of the project.

Relevance	The extent to which the objectives of the proposed projects were consistent with the requirements of the beneficiaries, targets and objectives
Effectiveness	The extent to which the objectives were achieved or were expected to be achieved, taking into account their relative importance
Efficiency	A measure of how resources/inputs were converted into results
Impacts	Positive and negative, primary and secondary effects produced by the proposed projects, whether directly or indirectly, intended or unintended
Sustainability	The continuation of benefits from the initiation until the completion of the project. It must be both financially and environmentally sustainable. Sustainability could be defined here as the ability of key stakeholders to sustain intervention benefits with efforts that used locally available resources.

Table 2.1: Criteria wise Operation of the Framework

2.2.3 Evaluation of Achievement

For evaluating the project achievement, relevance, effectiveness, efficiency, impacts and sustainability were considered as criteria in relation to the target of the project. Score of each criterion was scaled on the unique form (1-5) regarding the objectives of each component (1-3). Sectoral experts who was involved in this study provided their score based on expert judgement, study findings and interactions with the PMU. The Score was defined as 'Insignificant' which denoted score 1, 2 as 'Low', 3 as 'Moderate', 4 as 'High' and 5 as 'Very High'.

2.2.4 Assessment and Evaluation

Process Evaluation

Implementation Process Evaluation determined whether program or project activities implemented as intended and resulted in certain outputs. The objectives of the process evaluation to evaluate activities base output designed during the project planning, and implement ability of the Project Management Unit and other stakeholders. Results of the process evaluation strengthened the ability to report the activities, and use information to improve future activities. It allowed to track activities information related to Who, What, When, How and Where questions.

Sample of Questions

What were the activities done under the project?
What were the policies or regulation followed?
When did the project activities take place?
Where did the project activities take place?
What made the project work well? Why and How?
What did not work well? Why and How?
How did it work differently?

Evaluation critically examined the project activities. In this process evaluation, implementation process, implementing status, institutional arrangement, and implement ability were evaluated following the existing policy, and targeted objectives. The key objective of the process evaluation was to make judgments of implementation process, to improve its effectiveness, and to suggest measures for future directives to the PMU improving the project goals.

Process Evaluation Indicators

For the proposed study, following indicators were evaluated based on the project activities. Activity base indicators and description is presented in the following **Table 2.2**.

Indicators	Description of indicators				
Activity 1: Mass media communication					
Selection process	Procurement policy, implementation status, gaps and suggested measures				
Media type and name	Print, electronics and social media				
Broadcasting status	Duration, frequency and coverage for print media, broadcasting through social media				
Activity 2: Sanitization p	package				
Procurement procedure	Procurement policy, implementation status, gaps and suggested measures				
Procured product/items	Service, time, quantity & quality				
Distribution	Selection of the beneficiary (i.e. LSP, DLS officer, technicians, etc.), timely delivery				
Activity 3: Mobile Veterinary Clinics					
Procurement & technical specification	Procurement policy, implementation status, gaps and suggested measures				
Selection criteria of MVCs	Coverage, time and availability				
Supervision	Date and time, compliance				
Operation & maintenance	Date and time, compliance				
Training	Date and time, beneficiary				
Dissemination	Coverage and time				
Activity 4: Cash transfer	for business continuation				
Information campaign	Coverage, time/frequency				
Selection process	Eligibility criteria, beneficiary selection				

Table 2.2: Description of the Indicators

Indicators	Description of indicators		
Payment procedures	Time, amount		
Activity 5: Milk cream se	eparator machine		
Procurement process	Procurement policy, implementation status, gaps and suggested measures		
Delivery	Time, selection of the beneficiary, reception of cream separator		
Application from farmer	Advertisement, application, evaluation		
Beneficiary selection	Evaluation criteria, number of beneficiary		
Distribution	Time, capacity of machine		
Training on O & M	Date and time, training module, beneficiary number		
Activity 6: Deep freezer	for medicine and vaccine		
Procurement	Procurement policy, implementation status, gaps and suggested measures		
Reception of deep freezer	Inspection and registration		
Distribution	Date and time		
Storage capacity	Specification, storage capacity		
Activity 7: Rental vehicl	e to increase sale		
Procurement process	Procurement policy, implementation status, gaps and suggested measures		
Sales and distribution	Contract with egg and milk suppliers, sale and distribution plan (area, frequency sales price)		
Monitoring and reporting	Date and time for monitoring, status of reporting		

Impact Evaluation

The major objectives of the Impact and Result Evaluation of the project were to explore the benefits derived from the project and the achievement of project objectives as per its target. In this project, it would emphasise to explore whether the providing emergency supports were functioned effectively and efficiently to sustain the business of vulnerable farm holders during the COVID-19 pandemic situation as well as seeking suggestion for more improvement. The indicators for evaluating the impact of this project are mentioned in the following table 2.3

Indicators	Main issues for expecting outcomes				
Activity: 1: Mass media communication					
Behavior change	Whether the activities brought any motivational change among the consumers?				
	If not, what could be more beneficial?				
	Was the production supply increased during that period?				
Protein intake/product supply	Was the price of product increased due to increasing demand at that period?				
	Was the protein intake increased in the local community level?				
Activity: 3: Mobile veterinary clinics					
	How many farmers received treatment during that tenure?				
Treatment received	Did the treatment reflect effective result regarding survival of the livestock?				

Table 2.3: Issues for Expecting Outcomes of the Indicators

Indicators	Main issues for expecting outcomes	
	If not, what was the lacking and what could be the effective solution?	
Activity: 4: Cash transfer for bu	isiness continuation	
	What type and number of cattle was mentioned in the application?	
	What amount of Taka did the farmers receive?	
Amount of Taka received by	Was that given in the stipulated timeframe?	
each group	Was there any hassle/systematic deduction for receiving the amount?	
	Was there any grievance redress mechanism for solving financial disputes?	
	Was the given amount sufficient for sustaining the business?	
	Was the given amount supportive to easily continue the business?	
Business sustenance	Did the beneficiaries have any alternative plan if the amount could not be provided?	
Dusiness sustenance	If yes, what about the plan?	
	Was the given amount supportive to expand the existing business?	
	If not, what could be the more effective way in this regard for the expansion?	
	Was the entire amount spent?	
Expending cash	How long (days/months) did the given amount support relevant expenditure?	
	What was the sector of expenditure?	
	How much was the monthly income during that period?	
Income from business	Was there any changes in income compared to income before COVID-19 pandemic?	
	Had buy any new asset during this time frame?	
	What additional support could be more effective to ensure more income?	
	Did the farm introduce any diversified production?	
Due du stien dimensificantien	If yes, types.	
Production diversification	How it is functioning?	
	How it is impacted the overall income?	
Activity: 5: Milk cream separat	or machine	
	Did the farm/organization receive training about operating the machine?	
Knowledge transformation for	How fruitful and functional the training was?	
farmers and organization	Had any suggestion for improvement?	
	Production amount of milk cream, ghee and butter items per month.	
Production	Production loss estimation due to lack of knowledge.	
Activity: 6: Freezer for medicin	les and vaccines	
	How long the vaccines were stored?	
Vaccination capacity	Had any suggestion for more capacity building?	
	How the vaccines performed with its effectiveness?	
Quality of vaccine	Any suggestion for improving the vaccine quality?	
	Had the farmers receive instant support?	
Instant emergency support	What were the pros and cons in emergency services?	

Indicators	Main issues for expecting outcomes			
	Suggestion?			
Activity: 7: Rental cost for milk/egg vans to facilitate supply chain				
Management of door to door	How prompt the local offices to manage vehicle support during pandemic especially hard lock down?			
facilities for milk/egg collection	Hassle regarding vehicle arrangement if any?			
	Day to day, door to door service providing assurance.			
Advantage	Advantage regarding maintaining supply chain, saving from product rotten, damage, wastage.			
Forming	Support in earning by saving transport cost.			
Earning	More earning due to less loss of product by rotten, damages, etc.			

Considering the above-mentioned issues gaps were identified between the outcome and expected targets, which was previously set. The intensity and significance of the achievement was also identified through different quantitative approaches by using statistical tools and techniques with tabular presentation, as well as qualitative analysis.

Beneficiary Satisfaction Evaluation

Analytical framework: Beneficiary satisfaction is a self-reported assessment on a given criterion. Likert scaling is a useful tool for this assessment. In a typical Likert scale procedure, respondents rated their level of agreement. The responses were either positive or negative. A five-point scale of agreement was used to measure the satisfaction of the beneficiaries on each activity. The proposed study intends to assess the quality of services provided. The scale of responses are as follows:

 Table 2.4: Expressions for Quality of Services by Five Points Rating Scale

Value	Interpretation	Expression	
5	Excellent	\odot	
4	Good	\odot	
3	Moderate		
2	Bad	\odot	
1	Very bad	(1)	1
0	N/A		

For this analysis, "Taguchi Signal-to-Noise (S/N)" Ratio was used. Following this S/N ratio, beneficiary perception of quality and performance of provided supports/assistance, including their satisfaction and dissatisfaction (integrated) was assessed. Out of five criteria of evaluation framework (see approach and analytical framework), this satisfaction assessment was carried out for 'effectiveness' and 'efficiency'.

Indicators and Data Collection Methods: In the assessment, following indicators were investigated. The following table also shows how and from what sources data was collected.

Table 2.5: Indicators on Beneficiary Satisfaction and Methods of Data Collection

SI.	Evaluation on Beneficiary Satisfaction	Methods		
Act-1: Mass media communication				
1	Level of satisfaction (1-5) Document review & survey			

Sl.	Evaluation on Beneficiary Satisfaction	Methods		
2	Level of satisfaction (1-5)Survey (of farmers) & FGE			
Act 2:	Health safety items			
1	Perception on health safety benefit	KII (with DLOs, ULO)		
Act 3:	Mobile veterinary clinics			
1	Treatment received (by farmers)	Survey & FGD		
2	Medicine availability	Survey & FGD		
3	Information dissemination	Survey & FGD		
Act 4:	Cash transfer for business continuation			
1	Amount of Taka received by each group	Survey & FGD		
2	Timely received	Survey & FGD		
3	Hassle free received Survey & FGD			
Act 5:	Milk cream separator machine			
1	Satisfaction on training (1-5)	Survey & KII		
2	Functionality of machines (1-5)	Survey & KII		
3	Functionality on operations	Survey & KII		
4	Adequacy and capacity	Survey & KII		
Act 6: Deep freezer for medicine and vaccine				
1	Satisfaction on adequacy	KII (with DLO, ULO, Director)		
2	Effectiveness	KII (with DLO/ ULO/ Director)		
Act 7:	Rental vehicle to increase sale			
1	Management of door-to-door facilities for milk/egg collection	FGD/KII & Survey		

2.2.5 Sampling Design and Framework

Sample Design

The CERC-EAP implemented in 61 Districts under 8 Divisions. The objective of the CERC-EAP was to support and protect the livestock and poultry farmers for coping with the vulnerabilities due to the COVID -19 pandemic situations. A sample design was chalked out for post project evaluation to assess the relevance, effectiveness, efficiency, impacts and sustainability of emergency activities implemented by the CERC-LDDP. For conducting this evaluation study, multi-stage sampling design was followed to draw the samples for data collection. The stages were stratified by administrative hierarchy, such as: (i) Division, (ii) District and (iii) Upazila, where the CERC-EAP was implemented. Considering the sampling frame of the dairy and poultry farms, the sample number of District and Upazila were selected purposively.

Thus, sample size of Districts in eight (8) Divisions became 21 and Upazilas in each sample District became two (2). The total sample upazilas were 42. Subsequently the sample Districts and Upazilas were selected randomly considering the sample size. **Figure 2.3** shows the sample areas in the Divisions in Bangladesh. The sample farm households were selected from each of the sample Upazilas. The sample size determination of farm households is described below.

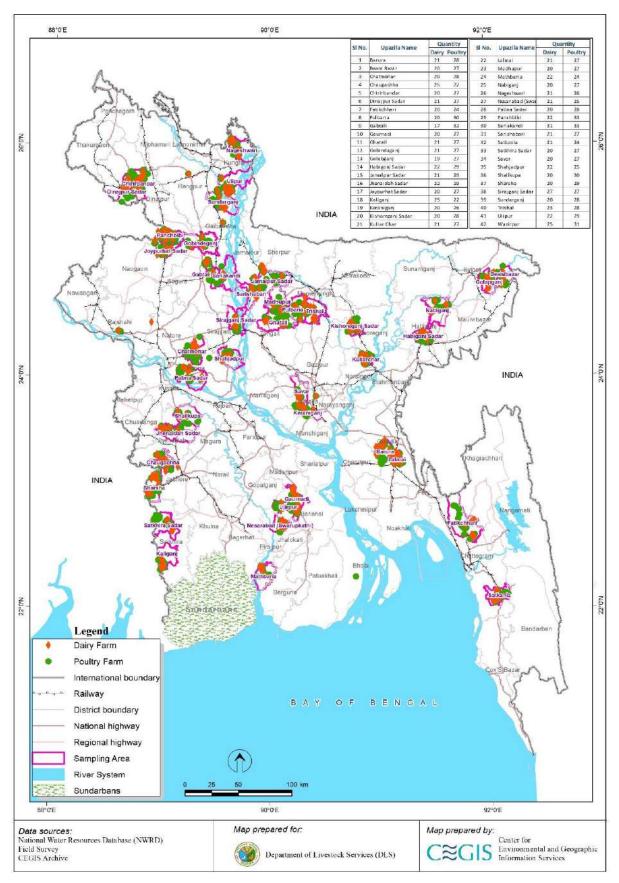


Figure 2.3: Study Area Map for the Evaluation Study

Determination of Sample Size of Farm Households and Adjustment

Two groups of farm households were considered in the study -

- Dairy farm households with small, medium and large farm subgroups; and
- Poultry farm households (including broiler, Sonali, layer and duck categories) with 3 different subgroups

Different sample sizes were considered for two groups as it consisted a big difference between population size of the groups as well as sub-categorization of group. However, techniques of sample size determination were similar to the groups where at least 20% (surveyed about 18.75%) of the total sample size was focused to the female representative (as per their availability).

Sample size for the household survey was determined following the formula (Cochran, 1953)

$$n = p \left(1 - p\right) \left(\frac{Z}{E}\right)^2$$

[n = sample size, P= Proportion of beneficiaries = 0.40 (assumed 0.4 as the target groups are small compare to its area coverage)

Z=1.64 (at 90% confidence level)

E = Standard error = 0.05 (or 5% is considered as standard margin of error)]

The above formula gave the acceptable total sample size as around 260. If the design effect was taken as 3 (as three subgroups), and rounding up the fraction number of upazila level sample size, it took total 840 dairy farm households in the sample as 20 households in each upazila.

In terms of sampling of the poultry farm household, similar approach was adopted while the design effect was added as 4 due to having four-(4) broader sub-groups. Thus, after rounding up the fraction number in upazila level, total sample size stood as 1134 where each upazila comprised 27 poultry farms.

Additionally, 32 beneficiary households were selected purposively considering the benefits from the activities of rental service. In this way, 2006 beneficiary households were targeted to be surveyed in 42 Upazilas of 21 Districts under 8 Divisions.

Table 2.6: Distribution of Sample Size by Farm Type for Households Surveyed

Types of Farm	Actual Quantity (in nos.)
Dairy Farm Household Survey (including small, medium and large farm subgroups)	899
Poultry Farm Household Survey (including all categories and subcategories)	1,138
Rental vehicle service receiver (all livestock farmers including women)	68
Total	2037

It is noted that rented vehicle service receiver were 68 those were also included either in dairy or poultry surveyed farm household. Therefore, for avoiding the double counting, number rented vehicle service receivers are deemed in the total sample size.

Distribution of Sample Size

Distribution of actual surveyed sample size with the study Upazilas were given in the following **Table 2.7**

Division	District	Upazila	C1	C2	C3	В	D	L	S	Total
	D 1 1	Gaurnadi	14	4	2	11	3	7	6	47
Barishal	Barishal	Wazirpur	17	5	3	14	3	9	5	56
	Distin	Mathbaria	14	6	2	11	1	5	7	46
	Pirojpur	Nesarabad (Swarupkati)	15	4	2	7	2	10	6	46
		Fatikchhari	15	4	2	11	1	6	5	44
Chattagram	Chattogram	Satkania	15	4	2	11	0	7	6	45
Chattogram	Cumilla	Barura	15	4	2	12	2	6	8	49
	Cumma	Lalmai	15	4	2	15	1	8	3	48
	Dhaka	Keraniganj	12	5	3	11	2	7	6	46
	DIIdKa	Savar	14	4	3	11	3	6	6	47
Dhaka	Kishoreganj	Kishoreganj Sadar	14	4	2	11	3	7	7	48
DIIdKd	Kishoreganj	Kuliar Char	15	4	2	11	3	7	6	48
	Tangail	Ghatail	15	4	2	11	3	7	6	48
	Taligali	Madhupur	14	4	2	11	3	7	6	47
	Jashore	Chaugachha	18	5	2	11	3	2	6	47
	Jashore	Sharsha	13	4	3	11	4	7	7	49
Khulna	Jhenaidah	Jhenaidah Sadar	17	4	2	11	1	0	7	42
Kiiuilla	Jiiellaluali	Shailkupa	13	4	3	20	5	0	5	50
	Satkhira	Kaliganj	17	5	2	11	1	6	4	46
	Satkinia	Satkhira Sadar	14	4	2	13	3	4	7	47
	Jamalpur	Jamalpur Sadar	15	4	2	11	4	7	7	50
Mymensingh	Jamaipui	Sarishabari	15	4	2	10	3	8	6	48
Nymensingn	Mymensingh	Fulbaria	14	4	2	12	3	9	6	50
	Mymensingn	Trishal	14	7	2	12	3	7	6	51
	Bogura	Gabtali	12	3	2	14	3	8	7	49
	Doguru	Sariakandi	20	6	5	13	3	7	10	64
	Joypurhat	Joypurhat Sadar	14	4	2	11	3	7	6	47
Rajshahi	Joypunite	Panchbibi	12	8	2	12	3	9	9	55
Rajonani	Pabna	Chatmohar	13	5	2	10	3	8	7	48
		Pabna Sadar	16	4	0	12	3	7	6	48
	Sirajganj	Shahjadpur	16	5	2	10	3	3	8	47
	Sirajganj	Sirajganj Sadar	19	7	1	11	3	7	6	54
	Dinajpur	Chirirbandar	14	4	2	11	3	7	6	47
	Dinajpui	Dinajpur Sadar	14	5	2	11	3	7	6	48
Rangpur	Gaibandha	Gobindaganj	16	3	2	12	3	7	5	48
nungpui	Guiballalla	Sundarganj	14	4	2	11	3	8	6	48
	Kurigram	Nageshwari	14	5	2	12	3	7	4	47
		Ulipur	16	4	2	13	3	7	6	51
	Habiganj	Habiganj Sadar	15	4	3	11	7	8	3	51
Sylhet		Nabiganj	14	4	2	11	5	5	6	47
	Sylhet	Beani Bazar	15	4	1	10	3	6	8	47
		Golabganj	15	3	2	11	3	7	5	46
	Tota	al	623	187	89	486	120	274	258	2037

Table 2.7: Upazila wise Actual Sample Size in Livestock Category

Note: C1= 2-5 Cows, C2= 6-9 Cows, C3 = 10-20 Cows, B = Broiler (B1= 500-1000 birds, B2 = 1001 – 2000 Birds & B3= 2001+ birds), D = Duck (D1 = 100-300 birds, D2=301-500 birds & D3 = 501 birds, L= layer (L1= 200-500 birds, L2= 501-1000 birds & L3= 1001+ birds) and S- Sonali (S1= 100-500 birds, S2= 501-1000 birds & S3= 1001+ birds).

Due to saving times, all types of surveys were conducted in same Upazilas. All those poultry farm subcategories were reflected in the overall analysis. Ensuring the female participation in the surveys, overall, about 18.75% of the total sample size (382) was surveyed for female farmers (as per availability). Although there were the subgroups distribution by the female farm HHs, but number of this distribution was changed as per the availability while total number remained unchanged.

Determined Sample Size for Qualitative Data Collection

Three (3) FGDs with beneficiaries, one for dairy farmers (male), one for poultry farmers (male) and one for dairy/poultry farmers (female) were conducted in each of the study districts. In addition, one FGD in each district was conducted with the field officials (i.e. LSPs). In total 84 FGDs were targeted to be conducted with the beneficiaries of the project and local field officials. Number of conducted FGDs and its distribution presented in the following table (**Table 2.8**).

Table 2.8: Distribution of FGDs conducted

FGDs	Actual Survey (in nos.)
Dairy Farmers	19
Poultry Farmers	21
Female Farmers	21
LSP	21
Total	82

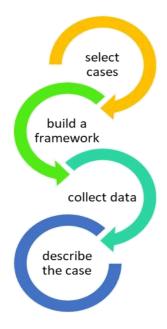
Furthermore, KIIs were conducted with the officials of the Ministries concerned, DLS officials (i.e., Ex-DG, PMU, and other project related key officials) at the headquarter and District Level DLS officials, LEO, UNO of the selected Upazila, rented vehicle suppliers, and beneficiaries of milk cream separators A total of 163 KIIs was targeted to be conducted during data collection period. Additionally, significant cases of both dairy and poultry categories were addressed and in-depth case studies were conducted applying appropriate techniques at the field level. However, during field survey some official were unavailable/unreachable and some were newly appointed who were unwilling to participate in the KIIs due to unfamiliarity with the project details and unaware of the field situation related to this project in their new territory. Thus, in total 147 KIIs were conducted at the central and local levels; the targeted and adjusted number of KIIs are presented in the following **Table 2.9**.

Table 2.9: Distribution of number of KIIs conducted

Stakeholders	Number of KII
Ex- DG of DLS, PD, DPD, M & E, and Other PMU Members	8
Directors (Division)	6
DLOs	18
ULOs	38
UNOs	17
LEOs (Additional)	28
Milk cream processors	13
Rental Vehicle Suppliers	19
Total	147

Case Study

A case study provides concrete, contextual, in-depth knowledge about a specific real-world subject. Below, the steps of the case study are presented:



Case Selection: During the field level qualitative data collection, 30 cases from different categories and geographical locations were selected considering the impacts of the project activities. In selecting, positive and negative impacts were considered.

Collecting data: Following a checklist a skilled professional interviewed the case or on behalf. Audio-visual method also followed for documentation, of course, with informed consent of the respondents.

Describe and analyse case: The collected material was checked and triangulated with the other field findings. The verified data/information was analyzed systematically, and interpreted in a simpler way for easy understanding the project's impacts, linked with the project objectives.

2.2.6 Secondary and Primary Data Collection

Secondary Data Collection

Literature Review: The study team comprising of the expert professionals conducted systematic review of all relevant documents such as various guidelines, implementation manual, relevant project documents, project appraisal, semi-annual Result Framework (RF) reports, bi-weekly reports, reports on CERC beneficiary satisfaction survey conducted by PMU, etc. The review works provided elaborated information about the task to be performed and pave the way to be decided the modalities of data collection from different sources.

Available information from the CERC-EAP offices on the following aspects were reviewed and outcome of the review were taken into account for designing and implementation of the evaluation process.

- Overall design of the CERC (at the time context); Procurement;
- Financial management;
- Project management (planned and actual implementation);
- Monitoring and Evaluation (use of KoBo Toolbox, data quality, data auditing, etc.);

- Social and Environmental Safeguards; Grievances (beneficiaries' ability to rise grievances on emergency activities and project's ability to resolve the grievances);
- Gender issues of beneficiaries;
- Communication with beneficiaries on emergency activities (particularly with women).
- Clear information on targeting, requirements, transfer value and COVID-19 recommendation, information given to beneficiaries and implementers;
- Beneficiaries' selection process and inclusion of women beneficiaries; Matching the eligibility of beneficiaries for selection; Verification of possession and control over the stock;
- Cash transfer by the beneficiaries' type; timeliness of cash transfer; Cash transfer amount; cash transferring process;
- Data collection process;
- Project's monitoring of emergency activities;
- Distribution and uses of cream separator;
- Distribution and uses of deep freezers;
- Carryout of all required steps at Upazila level for implementing the activities;

Data Inventory

A data inventory or data mapping work was conducted to know the type and extent of available data to the line agencies and others relevant to the study. After completing the inventory, the study team collected the documents and data set through in-person meeting with respective officials. The important information were related to:

- Project Appraisal Document (PAD)
- Emergency Operations Manual (EOM)
- Project Implementation Manual (PIM)
- CERC EAP manuals Guidelines, 2020
- Internal Evaluation Report, 2021

Primary Data Collection

Data of CERC-EAP of LDDP were collected using quantitative and qualitative approaches through HH/individual survey, KII and FGD and recorded and preserved accordingly.

Quantitative Survey

A total of 2037 sample households were surveyed for data collection on the impacts of the project and respondents' satisfaction on the activities performed and the utilization of the support received through the CERC-EAP activities. During the quantitative survey, dairy and poultry farm categories and women farm households considered. The Table 2.7 presented the actual surveyed category of dairy and poultry farm households.

Qualitative Survey

Key Informant Interview (KII): Data for process evaluation collected through Key Informant Interview. In this study, 147 KIIs were conducted with DLS officials, UNOs, PMU central offices and beneficiaries from the local level (i.e. Recipient of Milk Cream Separator and Rental vehicle service providers). The KIIs interview helped to understand overall aspects of the process, challenges of CERC-EAP implementation, Lessons learn according to their experience, and finally suggestions for future prospects.

Focus Group Discussion (FGD): In this evaluation study, a total of Eighty-two (82) Focus Group Discussion (FGD) were conducted to understand the damages and economic losses of the dairy and poultry farms due to COVID 19. Besides, how the CERC-EAP help to sustain their production and sale, impacts of the EAP activities in their farm management, and their satisfaction on the activities performed under the CERC-EAP, weaknesses of the project implementation and suggestions for future improvement understood based on the findings of the conducted FGDs.

Case Study: About 30 case studies were conducted in different locations of the study area focusing on the special cases. The respondents were interviewed in-depth to explore his/her real picture of success in the business due to the proposed project.

All data collected through FGD, KII and HH survey was analysed and the findings incorporated in the evaluation report.

Sl. No.	Methods of data collection	Persons interviewed	Purpose
		Ex-DG (DLS), PD (LDDP), Finance & Procurement Specialist, Gender, Environmental and Social Safeguard, Monitoring and Evaluation and ICT Specialists	Process evaluation to understand the success story, challenges and gaps in the procedure in relation to the guidelines of the project Implementation Manual.
1.	KII	Directors (Divisions), DLOs	Evaluation of implementation, implementation process; lessons learned and monitoring activities.
		UNOs, ULOs, LEOs/ LFA, Farmer Association Leader	Procedure of beneficiaries selection, implementation, monitoring and reporting related issues.
		Dairy Farmers	Measuring farmers' satisfaction level and present status of the farms.
2.	FGD	Poultry Farmers	Measuring farmers' satisfaction level and present status of the farms.
2.	100	Livestock Service Providers (LSPs)	Understanding the field level challenge of the CERC-EAP implementation, their concern about the EAP implementation, and suggestions for future prospects
3.	Household (HH) Survey	Dairy farmers of 3 categories, poultry farmers of 4 categories (including the sub category from each), other Beneficiaries and Consumers.	Assessment of impact of the activities performed under the CERC-EAP and to measure the level of satisfaction of the beneficiaries.
4.	Case Study	Individual beneficiary from all categories including processors and producers' organization.	Understanding reasons for success and failure in the business.

Table 2.10: Primary Data Collection Method

2.2.7 Data Collection Instrument Development

The data collection instruments (questionnaires, checklists) were developed in accordance with the specific objectives of the study based on the process, impact and satisfaction level of the activities performed. Following the parameters (**Table 2.11**) the questionnaires and checklists were formulated considering the different modalities of the data collection techniques, i.e. questionnaire for HH survey, checklists for FGDs and KIIs. The HH surveys provided the information regarding impact and the level of satisfaction of the direct beneficiary of the project. The FGD checklists also reflected the impact of the activities. On the other hand, policy, procurement, distribution, selection of beneficiaries, implementation, etc. issues were incorporated in checklists for KII with the responsible persons concerned. Data collection tools Instruments presented in the **Appendix I**.

Parameters	Collected Information
General Information (from all respondents)	Respondent's name, age, gender, marital status, religion, education, occupation, earning, etc. by family members
Awareness building messages through mass media	Respondent's knowledge on COVID-19, which media informed, misconception, the present idea, whether benefitted or not, how benefitted, etc.
Distribution of sanitation packages	Received or not, what items received, benefited or nor, how benefitted, who uses, etc.
Mobile Veterinary Clinic services	Availability of services, benefitted or not, what services received so far, who provided services, why it is necessary, etc.
Cash Transfer	Got it or not, how much, for how many cattle/ bird in present possession, how many have had before COVID-19, how many depleted during COVID-19 and reasons for depletion, previous (before COVID- 19) and present production, previous and present price of products, diversification of products, threats and strength, what support requires, marketing aspects; where, how much, to whom, etc.
Distribution of Milk Cream Separator Machine	Provided or not, what capacity, quantity of milk produced, own farm product or collected from others, how it benefitted, items produced before and after distribution of MCSM, identity of the primary or secondary consumers
Distribution of Deep Freezers	Got it or not, using it or not, purpose of use, volume of vaccine or medicine kept per month, usefulness of deep freezers, etc.
Vehicles rental for milk and egg sale	 Vehicle owner: what vehicle possesses, for how many days it was in rental use, what purpose, how much claimed per vehicle day, where used, who hired, etc. Beneficiaries: was it helpful, Consumers: was it helpful, how many times purchased from the vehicle, what items, what is his/her impression
Management aspects of CERC-EAP	Efficient or not, any problem encountered, lessons learned etc.

Table 2.11: Parameters for formulating Questionnaires and Checklists

2.2.8 Research Associate Recruitment, Training and Field Test

For collecting necessary data from field 42 Research Associates were recruited. A detailed process was followed in recruitment where the Research Associates were short listed according to their relevant experiences, they were interviewed and finally called for 3 days long training session. Training modules used in the training for better understanding. After the completion field test conducted for clearing their concept and validated the prepared all sets of questionnaires and checklist. After getting the feedback from the training some changes made and got approval from the

PMU. According to the performance of the trainee Research Associates, field team and location were designed/selected by the expert evaluation team.



Figure 2.4: Training Session on Data Collection



Figure 2.5: FGD Conducted during Field Test

2.2.9 Quality Checking and Control

Since the mobile based data collection 'KoBo Toolbox' was applied for data collection involving several techniques in the tool to monitor and track the activities of the Field Associates, monitoring team was formed headed by the officials of CEGIS to oversee the data collection activities. The team regularly checked the activities of the Research Associates and their Mentors/Supervisors. Any mistake in data collection process was corrected for validation. This team ensures the quality of data and time-barred performances.

2.2.10 Data Stocktaking, Cleaning and Compilation

The data collected through HH survey required cleaning. The data collected by PMU by using mobile based techniques of data collection known as 'KoBo Toolbox' were cross checked and corrected. After verification, the data were analysed and finally the outcomes of the analysis were interpreted in the evaluation report.

In addition, 4 mentors of CEGIS office were engaged (one is responsible for 2 Divisions) to mentor their respective teams of Research Associates and regularly check the outputs of HH survey. Information collected through KII and FGD were also exposed through interpretation and compiled in the final report. Checking, cleaning, and compilation of data were done by the responsible research associates under the supervision of the mentors.

2.3 COVID- 19 Protocol

Health Protocol during In-Person Interview

Field staffs were advised to maintain the following heath protocol for COVID- 19 during data collection through face to face interview:

Health Protocol for COVID- 19

- Data collection through HH survey was carried out without any physical contact.
- Both the Research Associate and the respondent used face mask.
- All of field staff carried hand sanitizer and disinfectant spray with them and used them when requires.

Maintaining the Health Protocol

All persons involved in data collection and supervision were instructed to maintain all the health protocol as per national guideline for community circulated from the Director General of Health Services (DGHS) to protect themselves and others from the transmission of COVID-19. However, in addition, the staff involved in field work were advised to avoid hand shaking, wearing of face mask properly, maintaining the norms of social distancing, avoiding mass gathering, avoiding interview of any suspected person for COVID-19 infection such as fever, sneezing, nasal discharge, coughing, etc. Each and every person involved in data collection were responsible for their safety protection from COVID-19 and maintained safety protocol accordingly.

2.4 Data Visualization

A list of data set has already been collected/generated under Livestock and Dairy Development Project (LDDP) of Department of Livestock Services (DLS) for Contingency Emergency Response Component Emergency Action Plan (CERC-EAP). The PMU provided those data set to the CEGIS study team for visualizing data. Based on the collected data (From PMU) and GPS coordinated , GIS map on different classifications like B1 (500-1000 birds) (Broiler), B2 (1001-2000 birds) (Broiler), B3 (2001+ birds) (Broiler), C1 (2-5 Dairy cow) (Dairy), C2 (6-9 Dairy cow) (Dairy), C3 (10-20 Dairy cow) (Dairy), D1 (100-300 birds) (Duck), D2 (301-500 birds) (Duck), D3 (501+ birds) (Duck), L1 (200-500 birds) (Layer), L2 (501-1000 birds) (Layer), L3 (1001+ birds) (Layer), S1 (100-500 birds) (Sonali), S2 (501-1000 birds) (Sonali), S3 (1000+ birds) (Sonali) were prepared by the CEGIS team. This classification will be addressed in different layer for better visualization. Additionally, other layers like administrative boundaries (i.e. District or Upazila), river system; road network etc. were superimposed in these maps. The legend and labels of the layers also shown in those prepared map.

2.5 Institutional Engagement

For conducting this study, a lot of support was received from the PMU, Divisional, District and Upazila level offices. The field team worked smoothly and was connected with the DLS offices. ULOs, LEOs, the PMU and consultants concerned coordinated overall management of the evaluation study. Moreover, required information and support from DLS officials at various levels was appreciable to complete the study.

3. Profile of the Farm Households

3.1 Introduction

Bangladesh has a total cattle and buffalo population of 25 million of which 95% is for dairy. Total milk production is approximately 9.9 million MT, of which 15% is for home consumption, 80% informally traded on local markets and to sweet-meat producers, and 5% is collected and processed by dairy companies. Dairy production comes from over 3.6 million smallholders characterized by 1-3 milking local/non-descript cows with low production of about 1-2 liters per day and less than 480 liters annually. Weather of Bangladesh is very much friendly for poultry farming. Poultry farming has become one of the major source of income and developed in entrepreneurship in rural area. In this study, 2037 dairy and poultry farm surveyed to understand the impact of the activities under the CERC-EAP. This section analyzed the socioeconomic profile of the farm households.

3.2 Ownership of Farm by Division

A total number of 2,037 households surveyed whereas 908 dairy farm households surveyed in eight divisions to conduct the CERC-EAP evaluation. Following table 3.1 shows the distribution of dairy farm households (male and female) by divisions. The survey findings depicted that about 76.7% dairy farms owned by males whereas only 23.3% farms owned by female farmers.

Divisions	Dai	iry	Pou	ltry
DIVISIONS	Male %	Female %	Male %	Female %
Barishal	77.53	22.47	75.47	24.53
Chattogram	67.86	32.14	81.37	18.63
Dhaka	79.84	20.16	80.63	19.38
Khulna	84.73	15.27	86.67	13.33
Mymensingh	74.44	25.56	81.65	18.35
Rajshahi	76.37	23.63	88.26	11.74
Rangpur	79.03	20.97	86.06	13.94
Sylhet	73.81	26.19	90.65	9.35
Average	76.7	23.3	83.85	16.15

Table 3.1: Ownership of Farm by Division

Source: Field Survey, CEGIS, 2022

On the other hand, table 3.1 also shows that the division wise distribution of the ownership of the poultry farmers. It is illustrated that from the surveyed poultry farm households about 83.85% poultry farmers were male and 16.15% female.

3.3 Age Structure of the Farm Owners

Following table 3.2 shows the average age structure of surveyed farm households in both dairy and poultry sectors. It was found that in dairy sector, average age structure for males were 44 and female were 41. On the other hand, in Poultry sector, the average age structure of male farmer found as 41 whereas female age was 39. Among the farm owners from both sectors, males are comparatively elder than females. Division wise average structure of HH owners presented in the following table 3.2

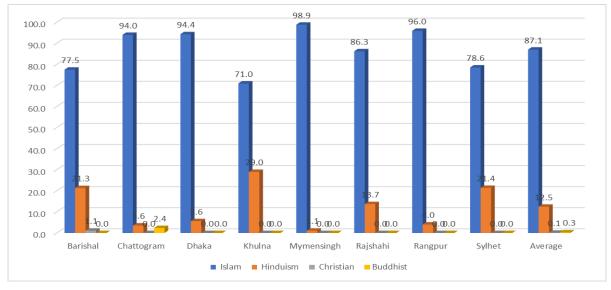
Division	Dai	ry	Pou	ltry
DIVISION	Male	Female	Male	Female
Barishal	45	45	41	41
Chattogram	43	39	40	39
Dhaka	44	38	42	40
Khulna	46	39	40	44
Mymensingh	44	41	41	35
Rajshahi	45	44	42	41
Rangpur	44	41	41	35
Sylhet	43	40	41	38
Average	44	41	41	39

Table 3.2: Age Structure of the Farm Owners

Source: Field Survey, CEGIS, 2022

3.4 Religious Status

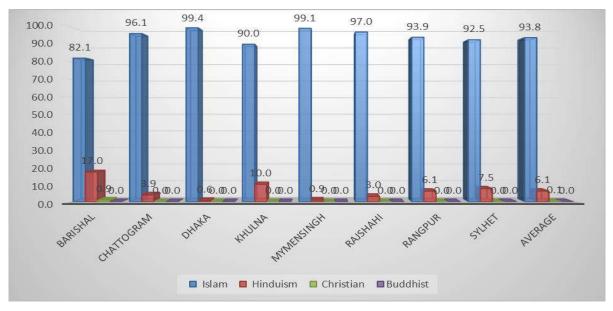
From a religious point of view, most of the farmers are Muslim. Following figure 3.1 shows the distribution of dairy farm households' religions by division. It is observed in all surveyed divisions majority of the farm owners are Muslim followed by Hinduism. The survey data depicted that on average 87.1% of dairy farm owners are Muslim. The second highest religious group is the Hindu community followed by Buddhists.



Source: Field Survey, CEGIS, 2022

Figure 3.1: Religion of the Dairy Farm Owners

The Following figure 3.2 also depicts the same picture as like the dairy sector. Most of the poultry farm owners are Muslim. On Average 93.8% of farm owners are Muslim whereas the second highest group is hind which is 6.1%.

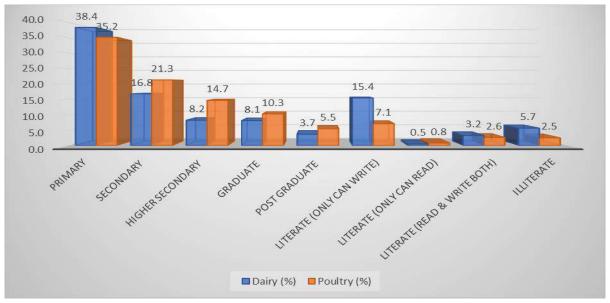


Source: Field Survey, CEGIS, 2022

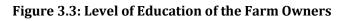


3.5 Educational Status

Almost every farm owner from both sectors is found literate. Only a few farmers about 5.7% and 2.5% from dairy and poultry respectively are found illiterate. The highest educational qualification is primary for both dairy (38.4%) and poultry (35.2%) farmers followed by secondary education. It is observed that a number of highly educated people with graduate and post-graduate degrees are also involved in the farming business.



Source: Field Survey, CEGIS, 2022



3.6 Occupational Pattern

The survey findings show that on average majority of the farm owners both dairy and poultry are involved in multiple occupations which are 51.8% and 39.9% respectively. It means that farming is not their only source of income. After farming most of them are involved in agriculture. They are also

involved in the business and services sector as a means of livelihood. On the other hand, about 48.2% of the dairy farmer are dependent on a single occupation whereas 32.4% are in poultry. It means that farming is their prime source of livelihood.

Table 3.3: Distribution of Dairy and Poultry Farmers by Division and access to otherOccupations (Multiple or Single)

Division	Dai	ry	Poult	try
DIVISION	Multiple	Single	Multiple	Single
Barishal	38.2	61.8	12.8	41.5
Chattogram	23.8	76.2	13.3	39.0
Dhaka	53.2	46.8	48.2	33.8
Khulna	67.2	32.8	41.5	35.4
Mymensingh	53.3	46.7	33.3	22.6
Rajshahi	58.8	41.2	79.5	37.9
Rangpur	57.6	42.4	52.8	31.8
Sylhet	61.9	38.1	37.4	17.4
Grand Avg	51.8	48.2	39.9	32.4

Source: Field Survey, CEGIS, 2022

4. Process Evaluation

4.1 Introduction

This process evaluation was carried out based on the activities implemented under the Contingency Emergency Response Component (CERC)-Emergency Action Plan (EAP). Before commencement of the CERC-EAP, a manual titled "Implementation Manual for the Contingency Emergency Response Component" was prepared as a guideline to implement activities of this project. This manual set the criteria and helped to implement the seven (7) activities under the CERC-EAP. In this EAP manual, the implementation schemes of the actions proposed in the EAP with special focus on:

- Who would initiate and coordinate the EAP activities
- How would the EAP activities be implemented
- When did the EAP activities undertake
- Reporting procedures throughout the project
- CERC Monitoring & Evaluation requirements

All the focused implementation schemes have been implemented through the Project Management Unit (PMU) of the Livestock and Dairy Development Project (LDDP) under the supervision of the Project Director (PD) and the Chief Technical Coordinator (CTC) of DLS.

4.2 Approach and Method

The process evaluation was undertaken by examining both primary and secondary data and information. Primary data have been collected through interviews of PMU, the Project Director and the Deputy Project Director. For each section, concerned persons/units have been interviewed (e.g. for procurement, personnel of the procurement unit were interviewed). On the other hand, the internal evaluation carried out by the PMU was heavily used for this evaluation.

4.3 Activation, approval and implementation of CERC-EAP

Following the chronology, the CERC-EAP has been started at the proper time when it was highly needed i.e. at the beginning of the pandemic declared in Bangladesh. Thus, immediately after the country-wide shut-down (on 24 March 2020), the government (precisely, the Department of Livestock (DLS)) notified its interest to the World Bank (WB) to activate CERC on 28 April 2020). The core activity was to provide short-term unconditional cash transfer (along with other supports) to farmers to support and compensate for the losses incurred from the COVID-19 Pandemic.

The activation and approval of the CERC-EAP were not easy because of: first, it was the first time of such a project in Bangladesh; and second, the country has no clear-cut guideline to deal with or support in such as pandemic situation. Thus, two conditions were needed to be met for activation in its inception: (i) the establishment of a causal relationship between the eligible emergency and the need to trigger the CERC; and (ii) furnish a request to the WB for financing through CERC, indicating Project's funding to be reallocated. To meet the former condition, a causal relationship was established by an official Government's declaration of emergency by article 141 A (1) of The Constitution of Bangladesh or Disaster Management Act 2012 of Bangladesh, which was acceptable to the WB, based on a preliminary assessment of damages and needs. The second condition was met following the WHO-declared health emergency or Public Health Emergency of International Concern (PHEIC) (under the International Health Regulations) IHR (2005).

For the approval of the CERC-EAP, high-level government bodies such as the Ministry of Finance (MoF) and the Ministry of Fisheries and Livestock (MoFL) were involved. The MoF dealt with the Economic Relation Division (ERD) of the planning commission. On the other hand, the Department of Livestock (DLS) under the MoFL was the main implementing body. DLS is already operating the Livestock and Dairy Development Project (LDDP), funded by the WB and maintained by a Project Monitoring Unit (PMU). The CERC-EAP was proposed and operated under the LDDP (see figure).

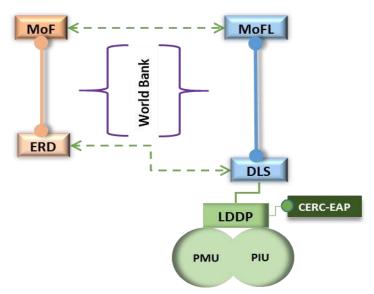


Figure 4.1: Activation, approval and implementation bodies of CERC-EAP

Drawing on the figure-4.2, the government sought support and advice from WB to select a list of activities for financing under CERC-EAP. In a similar line, the ERD requested the WB to activate CERC of the LDDP project, by reallocating USD 96.20 million with LDDP. Upon the official request by the government, the PMU sent an Emergency Operational Manual to the WB for consideration. As such, the PMU prepared an EAP for 96.2 million USD for a tenure of 15 months. A special CONTASA account was requested by the WB to deposit money for emergency disbursement. The PMU submitted a proposal to the Ministry of Finance through MoFL on June 6, 2020. This CONTASA account was approved by the Ministry of Finance for PMU of LDDP for disbursement of the money for CERC implementation and financial reporting on September 20, 2020. On the same day, the PMU opened CONTASA with Agrani bank Limited, Bangladesh.

The administrative procedure took a long time to open the CONTASA account (of around three and half months). The absence of emergency guidelines and the lack of experience in dealing with such an unprecedented event caused this delay. Furthermore, the LDDP project has already an individual bank account. Therefore, opening a new separate account under the same project was a matter of a legal-administrative issue to be resolved, which also caused the delay. On top of that, the nation-wide lockdown and personal fear to be affected interrupted the regular meetings between and among concerned government bodies to take decisions. Eventually, the approval of the CONTASA account was delayed.

However, the selected activities under the CERC-EAP project were not delayed. The mass-media communication for awareness building was started much earlier, even before the activation of the CERC-EAP. This communication program was highly needed at that time to eliminate misconceptions (e.g. Covid spreads through livestock) among people. Although the process of the rest of the six activities was stated before the approval of the CONTASA account, it did not make any problem since procurement was carried out after the activation of the account.

							Imple	ement	ation	Miles	tones						
Project Highlights	2019						20	20							20)21	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
First identified Covid case (in Wuhan)	🜞 D	ecemb	er 2019														
WHO declared as pandemic				# 1	1 Marc	h 2020											
First confirmed case in Bangladesh				# 8	Ma rch :	2020											
First all-out lock-down				۲	24 Ma	rch 202	0										
GoB notified interest to WB to activate CERC					*1	8 April	2020										
CONTASA account was requested by the WB						# 1	3 May2	020									
The PMU sent Emergency Operational Manual to WB						۲	19 Ma	2020									
The PMU submitted proposal of CONTASA to MoF through MOFL							🌞 6 J	une 20	20								
The WB activated CERC-EAP							🌞 9	June 2	020								
Ministry of Finance Approved CONTASA										🌞 2	0 Sept	ember	2020				
First CERC-EAP activity started (Mass Media communication)				*	25 Mar	h 2020											
Key activity (Cash transfer) commenced							٠	June	2020								
Procurement of Sanitization package											# 7 (Octobe	r 2020				
Procurement of Mobile Veterinary Clinics (MVCs)								# 1	5 July 2	020							
Procurement of Milk Cream Separator Machines (MCSM)										🛊 2 Se	ptemb	er 2020					
Procurement of Deep Freezers										🛊 2 Se	ptemb	er 2020					
Started rental vehcile support														2 S	eptem	ber 202	D

Figure 4.2: Implementation milestones of the CERC-EAP

4.4 Procurement and Distribution

Officially, the CERC-EAP activated on June 9, 2020. Since then, the prime focus was on the procurement of goods and services related activities. In its inception, a separate Annual Procurement Plan (APP) was prepared and got approval from the Head of Procuring Entity (HoPE), i.e. Director General of Department of Livestock Services (DG, DLS) (see, Photo in Annex III). After then, PMU processed each and every package through World Bank STEP as proposed in approved EAP. WB accepted "post review" for all procurement packages apart from MVCs.

The procurement was carried out in a transparent way, following the national procurement regulation. Thus, an Implementation Manual was prepared where the implementation schedule and clear specification of items as described. The APP clearly mentioned the procurement method, i.e. Request for Quotation (RFQ), Open Tendering Method (OTM), Single Source Selection (SSS) etc. Thus, the project director's office advertised in the Electronic Government Procurement (EGP) and also published on the LDDP website.

The procurement followed the manual and tried to keep the targeted deadline. However, for some items procurement took a longer time:

- Nation-wide lockdown/shutdown hampered all usual movement thus activity become slower
- The shut-down situation also delayed the global shipment, which slowed down the import and caused timely distribution
- Restriction on mobility due to the shutdown restricted evaluation committee members sit, discuss and decide on timely.
- Some PMU and Evaluation members were also infected by COVID 19, which made the process slow down.

Activity wise planned procurement and actual implementation are given below:

(i) Mass media communication

Procurement of mass media communication involves the following:

TVC Monologue (04)	 Immediate response to corona Consumption of Milk, Meat and Eggs to fight against Corona Child nutrition Consumption of Milk, Meat and Eggs Low-cost nutrition consumption of Milk, Meat and Eggs
Docu-drama (02)	 Importance of feeding silage to Farm Animal Importance of Farm Hygiene and Workers Health Safety during Covid-19 lockdown
TV Talk-show (02)	 Importance of milk and milk product and product diversification Livestock mobile marketing and Livestock Exhibition
TV scrolling (01)	• World milk day and milk week
Documentary (01)	Contribution of CERC-EAP for Business Continuation and Supply Chain Restoration
TVC Dialogue (01)	 Continuation of Farming Business to contribute country's Food Security during Corona period

According to the plan, the procurement i.e. involvement of mass media for broadcasting intends to start from the very inception of the project activation (6 June, 2020). However, the unprecedented Covid-19 pandemics motivated the LDDP project office to broadcast an immediate response to corona to build mass awareness. Eventually, the procurement was started earlier than the planned timeline. Although the competition time was estimated at 3.5 months, this was extended up to 15 months due to the continuous waves of pandemics. Meanwhile, four new items were included:

- 1) TVC on Low-cost nutrition consumption of Milk, Meat and Eggs
- 2) TV scrolling on World milk day and milk week
- 3) TV Talk-show importance of milk and milk product and product diversification, and
- 4) TV Talk-show livestock mobile marketing and Livestock Exhibition

					20	20										20	21					
Activity Status	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Planned: start to complete																						
Actual: start to complete																						

(Source: Implementation Manual, 2020 & Internal Evaluation, 2021)

Figure 4.3: Planned and Implemented Timeline of Mass Media Communication

<u>(ii) Health safety items</u>

The health safety items include procurement of a) surgical mask, b) surgical hand gloves, c) antiseptic disinfectant, d) bleaching powder. These items were intended to provide to DLS officers, Livestock Services Providers (LSPs), Government technicians and all workers involved in the handling and distribution of livestock products under the EAP such as collectors, van drivers, and sales staff.

However, procurement and distribution were delayed and shifted than the approved plan. The reasons behind this shifting include:

- Limited stock availability in the market against the higher demand through the world
- Delayed evaluation process interrupted by the nation-wide lockdown

- Lack of quality items according to the product needs
- Delayed response by bidders due to the higher demand and overlooking the advertisement on EGP

				2020)								20	21					
Activity Status	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Planned: start to complete																			
Actual: start to complete																			

(Source: Implementation Manual, 2020 & Internal Evaluation, 2021)

Figure 4.4: Planned and Implemented Timeline of Health Safety Items

<u>(iii) Mobile Veterinary Clinics (MVCs)</u>

Following APP, a total of 61 MVCs of double cabin pick-up vehicles with canopy (one for each district) were planned to procure. PMU intended to purchase a reputable brand. The procurement would follow Open Tendering Method (OTM) through National Competitive Bidding (NCB), in which the contract would be approved by the Ministry of Fisheries and Livestock (MoFL) other than the Project Director (PD) office. However, the procurement follows International Competitive Bidding (ICB) rather than NCB since improved clinics need to be imported from the international bidders. Eventually, the procurement process took a long time. Further, the international shipment was often interrupted due to corvid-driven global lockdown, which delayed the timely supply of MVCs. In addition, MoFL was the contract approving authority according to the APP. In this regard, the administrative due procedures also took time for the finalization and approval of the contract. On top of that, the covid-driven nationwide lockdown/shutdown affected the process, which caused the delayed procurement and distribution.

		2020											20	21							2022	2
Activity Status	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Planned: start to complete																						
Actual: start to complete																						

(Source: Implementation Manual, 2020 & Internal Evaluation, 2021)

Figure 4.5: Planned and implemented timeline of MVCs

<u>(iv) Milk Cream Separator Machines (MCSM)</u>

A total of 1500 nos. of MCSP were planned to procure according to APP. The procurement was planned to follow OTM method through NCB. Three categories of MCSM based on capacities were planned to procure: a) MCSP of 350 – 500 L/hour (electric), b) MCSP of 15-200 L/hour (electric), and c) MCSP of 50 – 100 L/hour (manual). The procurement followed the due procedure and method although the completion time was delayed. The reason for the delay is the Covid-driven nation-wide shutdown. Also, the large number of MCSP took time since bidders were unable to ensure timely delivery. Further, the rigorous quality check required additional time to distribute.

				2020)								20	21					
Activity Status	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Planned: start to complete																			
Actual: start to complete																			

(Source: Implementation Manual, 2020 & Internal Evaluation, 2021)

Figure 4.6: Planned and Implemented Timeline of MCSM

(v) Freezers for Medicines and Vaccines

A total of 530 deep freezers with the capacity of 300 – 400 L for storing medicines and vaccines were planned to procure according to the APP. The procurement followed the OTM method through NCB. However, the procurement was delayed due to the nationwide shut-down from the supplier's end.

				2020									20	21					
Activity Status	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Planned: start to complete																			
Actual: start to complete																			

(Source: Implementation Manual, 2020 & Internal Evaluation, 2021)

Figure 4.7: Planned and Implemented Timeline of Deep Freezers

4.5 Cash Transfer

4.5.1 Implementation Timeline

Unlike the other activities, the cash transfer activity followed the planned timeline. In fact, the process of selecting beneficiaries was started as soon as the activation of the CERC-EAP, before the planned timeline. As said before, this was the core activity of the CERC-EAP.

		2020								2021									
Activity Status	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Planned: start to complete																			
Actual: start to complete																			

(Source: Implementation Manual, 2020 & Internal Evaluation, 2021)

Figure 4.8: Planned and Implemented Timeline of Cash Transfer Activity

4.5.2 Implementation Process

LDDP planned EAP-activities with the direct supervision of PD, supplemented by Chief Technical Coordinator (CTC) and assisted by the assigned Deputy Project Director (DPD). To perform the activities properly at the field and central level, two implementation committees were formed.

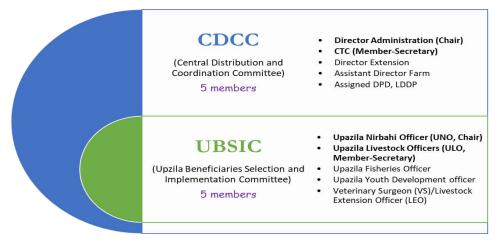


Figure 4.9: Beneficiary Selection and finalization Committees

At the central level, the Central Distribution and Coordination Committee (CDCC) consisted of five (5) members who were appointed by DG, DLS. This committee supervised, coordinated and monitored the activity. On the other hand, the local level committee called the Upazila Beneficiaries Selection and Implementation Committee (UBSIC) consisted of five (5) members. This committee was responsible

for the selection of beneficiaries and transparent implementation at the field level. Dairy and poultry sectors beneficiaries were selected by this committee and finally, the list was sent to CDCC for cash distribution.

4.5.3 Beneficiaries selection, verification and finalization

The Livestock Service Provider (LSP) under the local office of the Department of Livestock (DLS) prepared the initial list by visiting the locality. This initially prepared list was submitted to the UBSIC for scrutinizing and finalizing the preliminary beneficiaries list. The preparation of the initial list was very tough because of several reasons:

- (i) the DLS did not have comprehensive and updated farmers list,
- (ii) the COVID-19 spread in the locality discouraged people not to allow LSP to their home to collect required data,
- (iii) the lock-down situation restricted their mobility and as such to collect data from farmers,
- (iv) farmers did not have trust to receive any support from the government,
- (v) because of the sense of fear people were unwilling to share their personal information (such as, NID, mobile no. etc.).

Despite these limitations, UBSIC with the support of LSPs prepared the list and sent to PMU after checking and verification. In the next stage, the CDCC recommended the received list to PD or DG, DLS for final approval. UBSIC and CDCC are in charge of implementation at Upazila level. Both committees are composed of government staff only. Therefore, the inclusion of local level representatives from the livestock sector and civic society was mandated in the CERC-EAP manual. Although these mandated representatives were not included in the committees, they had been consulted during the selection process.

This selection criteria of different types of beneficiaries, as described in the CERC-EAP manual, is given below:

Sonali Farmers to be supported with business continuation cash transfers:

- Farm having 100 to 500 Sonali birds (layer/cockrel). (20,000 HH Farm having 100 to 500 Sonali-birds (layer/cockrel) will be given BDT 4,500.00 for each HH, 12,000 HH Farm having 501 to 1000 Sonalibirds (layer/cockrel) will be given BDT 6,750.00 for each HH and 8,000 HH Farm having 1001 and above Sonali-birds (layer/cockrel) will be given BDT 11,250.00 for each HH)
- At least 30% of total farm revenue from Sonali chicken rearing.
- 25% of the support will go to farms registered by women.
- Farm has been operating at least for last 24 months.
- Once farmer selected for cash incentive against balanced feed for Sonali will not be considered for other support under EAP.

Broiler Farmers to be supported with business continuation cash transfers:

- Farm having 500 to 2000 broiler birds (layer/cockrel). (40,000 HH Farm having 500 to 1000 broiler birds will be given BDT 11,250.00 for each HH, 26,000 HH Farm having 1001 to 2000 broiler birds will be given BDT 16,875.00 for each HH and 14,000 HH Farm having 2001 and above broiler birds will be given BDT 22,500.00 for each HH)
- At least 30% of total farm revenue from broiler chicken rearing.
- 25% of the support will go to farms registered by women.
- Farm has been operating at least for last 24 months.
- Farmers under contract farming will not be considered.

• Once farmer selected for cash incentive against balanced feed for broiler will not be considered for other support under EAP.

Layer Farmers to be supported with business continuation cash transfers:

- Farm having 200 to 1,000 layers birds. (36,000 HH Farm having 200 to 500 Layer-birds will be given BDT 11,250.00 for each HH, 24,000 HH Farm having 501 to 1000 Layer-birds will be given BDT 16,875.00 for each HH and 10,000 HH Farm having 1001 and above layer-birds will be given BDT 22,500.00 for each HH)
- At least 30% of total farm revenue from layer hen rearing.
- 25% of the support will go to farms registered by women.
- Farm has been operating at least for last 24 months.
- Farmers under contract farming will not be considered.
- Once farmer selected for cash incentive against balanced feed for layer will not be considered for other support under EAP.

Duck Farmers to be supported with business continuation cash transfers:

- Farm having 200 to 300 duck birds. (5,000 HH Farm having 100 to 300 duck birds will be given BDT 3,375.00 for each HH, 3,000 HH Farm having 301 to 500 duck-birds will be given BDT 6,750.00 for each HH and 2,000 HH Farm having 501 and above duck-birds will be given BDT 6,750.00 for each HH)
- At least 30% of total farm revenue from layer hen rearing.
- 25% of the support will go to farms registered by women.
- Farm has been operating at least for last 24 months.
- Farmers under contract farming will not be considered.
- Once farmer selected for cash incentive against balanced feed for duck will not be considered for other support under EAP.

Dairy Farmers to be supported with business continuation cash transfers:

- Farm having minimum 2 cows to maximum 20 adult dairy cows. (300000 farms HH having 2 to 5 cows of which at least 2 lactating cows will be given BDT 10000.00 for each Farm HH, 100000 farms HH having 6 to 9 cows of which at least 3 lactating cows will be given BDT. 15000.00 for each Farm HH, and 20000 farms HH having 10 to 20 cows of which at least 4 lactating cows will be given BDT 20000.00 for each Farm HH,)
- At least 30% of total farm revenue should be from sales of milk.
- Daily average milk production capacity per cow should be 5 litres or more.
- Farmers milking high yielding cross- or pure breeds producing minimum average 5 litre per cow/day will have priority.
- Farm having cross-bred cows will get preference.
- Farm having DLS registration will get preference.
- 25% of the support will go to farms registered by women.
- Farm has been operating at least for last 24 months.
- Once farmer selected for cash incentives for dairy will not be considered support under EAP other than compensation package.

The PMU decided to verify the list of selected cash beneficiaries through two ways: (i) physical crosschecking, and (ii) Authenticating via cash transfer agency.

Physical Cross Checking

The PMU decided verified the selected cash beneficiaries with a random sampling of 75100 beneficiaries. The sampling was distributed for each director 10 beneficiaries, District Livestock Officer (DLO) 10 beneficiaries, ULO 10 beneficiaries, LEO 50 beneficiaries, Livestock Field assistant

(LFA) 50 beneficiaries and were cross-checked across the country. This cross-checking exercise was administered by Kobo Toolbox and its Open Data Kit (ODK) apps.

All the Monitoring Officers (MOs) of PMU and Project Implementation Units (PIUs) staff were provided training on Kobo Toolbox and its verification form. PIUs under the supervision of PMU administered field data collection. Followed by an analysis, inconsistency concerning issues were found, such as: digit problem, duplication of both NID and account No, etc. The findings were presented to Honorable Secretary in a meeting with 61 Districts Livestock Officers. The meeting decided that findings of the cross-checking were alarming and advised to go for 100% cross-checking.

Following due consent of the Ministry, PMU issued a letter for 100% cross-checking of the beneficiaries within 15 days and required two conditions to be fulfilled:

- 1) NID and account number have to be the same person, and
- 2) Photos of the farmer in front of his/her farm.

Both two fields were to ensure the authentication of the farmer. After getting the instructions from both the Ministry and PMU, Officials from all levels (DLOs, ULOs, MOs, LEOs, LFAs, and LSPs) all came together to complete this task disregarding the COVID-19 risk on their lives. They, thus, visited door to door of all beneficiaries, checked for their farm's authentication, NID- all that was required.

Authentication by cash transfer agency

Tripartite agreements between PMU and Agroni Bank, bKash, Nagad were made where, authentication, disbursement reporting/reconciliation conditions were taking place; accordingly, final cash transfer activities progressed smoothly after finalization of the beneficiaries from the UBSIC, CDCC and cross-checked by the PIUs.

The MOs compared two data sets (UBSIC and Kobo) at the desk and reviewed accuracy and maximize beneficiaries. During the desk review, MOs were conducting random telephonic calls to the beneficiaries. A clean set of data was provided to the M&E section of the PMU for national checking. After M&E and Management Information System (MIS) checking, the clean data set was given to bKash, Nagad and AgraniBank for authentication. The bKash and Nagad had authenticated the data set with the national database of the election commission/PORICHOY to identify the authentic NID of the beneficiaries. They also checked whether the account number was activated with the specific beneficiary's NID number or not. If they found the account numbers were not activated with the beneficiary's own number, then bKash/Nagad marked them and sent them back to PMU for advice.

It was found that a large number of beneficiaries' bKash and Nagad accounts were not registered with their own NID. Most of these cases were registered with either spouse or son/daughter's NID. PMU advised the final cleaned list for cash disbursement to beneficiaries with the permission of the Ministry. Mismatched data was kept on hold for a further decision from MOFL. At the same time, the PMU decided to cross-check the mismatch data at Upazila level and found most of the mismatch beneficiaries used their account number either spouse or other family members. Finally, the ministry approved to disburse to mismatched beneficiaries.

4.5.4 Cash disbursement

Cash transfers relied on partnering with the two leading mobile money service providers in Bangladesh: agreements were signed with bKash and Nagad to transfer emergency funds automatically to the mobile accounts of individual beneficiaries. The first cash transfers began on February 17, 2021.

Cash transfer modalities	Complied (C)	Partially /not Complied (P/NC)	Remark
Regular bank transfer		РС	Cancelled since emergency cash transfer through bank did not work well.
e-banking/B-Kash	С		
Other mobile banking systems available	С		Nagad was selected
Payment by cheque is not allowed	С		
PMU will assess the transfer system including risk, cost and benefits	С		
Each selected system partner ensure a single fund transfer	С		

A total of BDT 6,989,585,125.00 was disbursed for 597,249 EAP beneficiaries (for 1st and 2nd tranches). Cash transfer beneficiaries were a total of 597,249, among which 417,209 (70%) dairy farmers and 180,040 (30%) poultry beneficiaries. The analysis also found that 18.36% beneficiaries (target was 25%) were female while 81.64% male.

Table 4.1: Disbursement of 1ST and 2nd tranche (February 17 2021 and June 27, 2021respectively)

Catagory of		DDT								
Category of beneficiaries	Total	Total Male Female Trans-gende						ler disbursed		
benenciaries	No	No	%	No	%	No %		uisbuiseu		
Dairy	417,209	338,180	81.06	79,007	18.94	9	0.01	4,684,270,000		
Poultry	180,040	149,394	82.98	30,642	17.02	-	-	2,305,315,125		
Total	597,249	487,574	81.64	109,649	18.36	9	0.00	6,989,585,125		

Source: Internal Evaluation 2021

Out of total beneficiaries, a total of 463,816 (77.66%) beneficiaries were transferred by bKash, while 131,651 (22.04%) were served by Nagad, and 1782 (0.30%) by Agrani Bank. Spelling mistakes of the account name, incorrect branch and routing number, etc. made bank-based operation challenging. It was understood for emergency cash transfers through bank did not work well.

According to the Internal Evaluation (2021), the achievement of cash beneficiaries is in the case of Sonali, Dairy and Duck were 93.86%, 99.34% and 100.04% respectively, while for the Broiler was 106.78%. On the other hand, the Layer shows low achievement (67.25%). The analysis also discovered 18.36% of beneficiaries (target was 25%) were female while 81.64% male. The target of female beneficiaries was not achieved. The selection criteria set under the EAP manual for males and females was the same, as result EAP did not reach the female target. For example, most of the women headed livestock farmers hold one cow but as per selection criteria, they could not be EAP beneficiaries. Minimum holding under EAP was two lactating cows. It was also observed that many women farmers do not have mobile money accounts. Thus PMU suggests during the setting of criteria males and females and females should be different.

The target for CERC-EAP Beneficiaries was 620,000, in which a total of 597,249 beneficiaries received cash successfully. The overall achievement was 96.33% against the CERC-RF target. The target was not achieved as a total of 43,954 beneficiaries who had been selected for the 3rd tranche was not disbursed following the instruction of MoFL due to the following reasons:

- The selection process was heavily influenced by political pressure, and
- Many beneficiary candidates were not matched with the expected criteria

On the other hand, the selection criteria of layer farmers did not work well since the selection criteria mentioned in the CERC-EAP manual did not fit for the farmers. Eventually, the process evaluation found low achievement particularly in L1-(Layer birds 200-500) and L2-(Layer birds 501-1000) groups. Contrarily, L3-(Layer birds 1000+) was found over-achieved. Most of the layer farmers are large they do farming commercially therefore targeting was misunderstood.

4.6 Financial Management

The account section comprising one senior finance manager and two junior financial management specialists dealt with the financial issues of the CERC-EAP project. Meanwhile, one audit was completed the last September and cleared. No project activity experienced a finance-related delay. Rather, the team worked quickly in spite of the nationwide shutdown due to COVID-19 pandemics and disbursed the requested budget.

The following table shows the percentage of budget allocation against each head and actual expenditure until 30 September 2021. The overall burnt rate of CERC-EAP budget is around 92.13%.

		Α	В	С
SI.	Major activities of CERC-EAP	% of budget against total	% of expended against total	Remaining by budget head (A-B)
1	Mass media communication: Nos	0.28	0.22	0.06
2	Health Safety Items (Surgical masks, surgical hand gloves, antiseptic disinfectant and bleaching powder)	0.03	0.03	0.01
3	Mobile Veterinary Clinics (MVCs)	4.12	3.86	0.26
4	Cash transfer for business continuation	91.26	86.09	5.17
5	Milk Cream Separator Machines (MCSM) with different capacities (1500 Nos)	2.05	0.84	1.21
6	Freezers 1 for each Upazila and/or District Livestock Offices or other relevant offices, as required (530 Nos)	0.28	0.24	0.03
7	Rental cost of vehicles provided to manage supply chain for 45 days	1.68	0.80	0.88
8	Operation, management, monitoring and evaluation	0.30	0.04	0.26
		100	92.13	7.87

Table 4.2: Summary Expenditure Report for CERC-EAP

Source: Internal Evaluation Report, 2021

At the end of CERC-EAP, the data analysis depicted 96.33% physical achievement against the actual plan of cash beneficiaries, while financial progress of the CERC-EAP cash found 94.34%. This deviation between financial and physical made because of over and underachievement for cash beneficiaries in different categories as well as the impact of the currency exchange rate (1 USD was 84.96 Taka as of June 9, 2020, while it is 85.52 taka as of October 10, 2021. If all other conditions hold, 8.16 billion Taka (USD 96M in June 2020) is USD 95.3M in October 2021).

On the other hand, a total of USD 8.408 million was budgeted for other than cash beneficiaries while USD 5.80 million expenditure incurred that means 2.61 million saved due to exchange rate and bidder proposed actually price a bit low.

4.7 Rental cost for Milk/Eggs Van to facilitate supply chain

The marketing chain of dairy and poultry has almost collapsed due to the continuous shutdown. For smooth marketing, the CERC-EAP project took initiative with the engagement of the Dairy and Poultry association under the supervision of the district livestock officer to sell milk, poultry and eggs, collect products from farmers and sell through mobile rental vehicles. In this case, the project supported only vehicle rent. The vehicles are mini truck, pick-up, cool van, auto van/easy bike etc. The operation of this activity was started on April 8, 2021, and ended on May 13, 2021.

The officers formed a three-member local committee to assess the local cost of transportation at the regional level. Farmers' associations also came forward to help, providing lists of livestock farmers and contributing to foot the van rental bill whenever it exceeded the ceiling set by the project.

However, the implantation period was delayed than that of planning. This activity was started in the second wave of COVID-19 pandemics (in 2021).

		2020							2021										
Activity Status	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Planned: start to complete																			
Actual: start to complete												-							

Source: Internal Evaluation Report, 2021

Figure 4.10: Planned and Implemented Timeline of the Rental Vehicle Service

4.8 Monitoring and Evaluation (M&E)

4.8.1 Verification of CERC-EAP Cash Beneficiaries

The PMU verified selected cash beneficiaries through the GEMS (Geo-Enabling Monitoring System), for which the WB provided training. As soon as receiving training, the PMU started monitoring.

Through this technology, exact locations of beneficiaries were identified and plotted on a map, including data on beneficiaries, pictures and type of farm. These data were populated on a dashboard in real-time. Using free tools enabling mobile data collection like Kobo Toolbox increased the speed and efficiency of data collection. This helped large volumes of data digitally transferred to central databases instantly with the help of a simple mobile device.

Training and survey team mobilization: The PMU and PIUs of LDDP staff were deployed to collect most of the data from the field across Bangladesh. The PMU M&E team conducted a two-day long training on data collection through ODK apps (Open Data Kit) for the PIUs

At least 5% of finally selected beneficiaries had been cross-checked randomly under the supervision of Senior M&E Specialist with the field supervision of Monitoring Officers and supported by 466 LEOs and 930 LFAs and 4,200 LSP. This exercise was carried out with a spotchecking form through Kobo Tool Box. All samples were proportionately distributed by categories/sub-categories as well as males and females. Monthly and quarterly reporting was ensured during the CERC-EAP implementation. The sane size of beneficiaries were considered for a satisfaction survey.



survey team both in the classroom and exercise in the field. As part of the training, each enumerator interviewed two households in order to develop his or her understanding and skills of questionnaire

administration. Around 7000 PMU, PIUS personnel were trained for data collection. Thus, a large number of personnel have developed their skills in digital data collection, which is a very good asset for the DLS.

Quality Control: The PMU engaged Monitoring Officers (MOs) supported by DLOs/ULOs for quality control, supervised and monitored data collection and provided technical backstopping to ensure high-quality data. The MOs monitored data collection, provided on/off-spot technical support to the field enumeration. The MOs monitored the interview event to provide specific feedback to the enumerators with regard to his/her interviews (e.g., questioning style, use of probing questions). As a follow up to cross-check of survey enumeration, team leaders re-interviewed sample households. The MOs also checked some submitted forms on a daily basis to identify the missing links, vague answers, and digital errors, to provide feedback to the enumeration team.

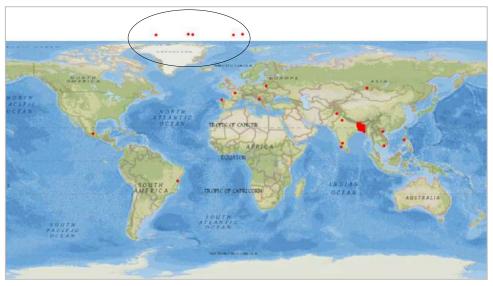
Limitation and overcome: Data collector/enumerator had been interrupted from sending information due to: (i) low bandwidth of Internet facility in some of the field; (ii) Interruption of the device due to technical problem; (iii) cultural barrier to taking photos of NID of female farmers; (iv) Security of the KoBo toolbox for the weakness of open data kit (ODK). To overcome these limitations, the following measures were taken:

- The PMU instructed to collect data at the field while he or she would be under hi bandwidth and internet facilities, and then submit.
- To deal with cultural issues, local religious leaders had been involved.
- For security reasons, field staff made had been trained rigorously.

4.8.2 Assessment

Despite such efforts, the evaluation study found some drawbacks, especially in data collected through KoBo. Below, some are given:

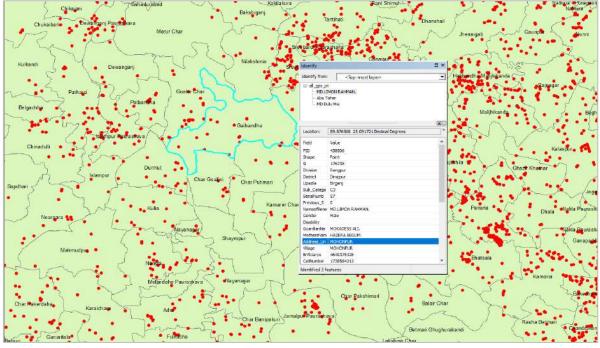
Having wrong or no GPS coordinate: CEGIS collected about 6 lac GPS coordinates from the DLS (KoBo data). Of the total dataset, around 1.5 lac points have no GPS coordinates. Inconsistencies have been observed for the rest of the data that have GPS coordinates. After plotting on the map, about 10% of the data were showing their location outside of Bangladesh (see Figure below).



Source: KoBo Data from DLS

Figure 4.11: Plotting coordinates in maps (red dots shows positions)

Shifting error of GPS coordinate: Typically, GPS-enabled smartphones provide accurate data within a 4.9 m (16 ft.) radius under open sky. However, the accuracy worsens near buildings, bridges, and trees. As the survey was conducted using KoBo, and by default the GPS coordinate was collected through the smartphone. Considering the objectives of the study, about 5 meter shifting error can be considered. A sample basis was carried out by overlying GPS coordinates with union boundary to see whether the union name have been matched or not. The result showed that 50% of the sample data is accurate (see Figure below).



Source: KoBo Data from PMU, DLS

Figure 4.12: Plotting coordinates by union boundaries

<u>Geocode of the administrative boundary</u>: In the dataset, no geocode was used for the administrative areas. Therefore, it was a challenging task to link the dataset with the existing administrative GIS data to produce maps. Some output maps of KoBo based coordinates are given in **Appendix VI**.

Satisfaction Survey on EAP Beneficiaries

A satisfaction survey of CERC-EAP beneficiaries had been conducted. This survey provided a good understanding of the project's consequences on beneficiaries.

4.9 Grievances redressing mechanism of CERC-EAP

Although the implementation manual does not mention, a Grievance Redress Mechanism (GRM) was in place. Thus, the GRM established under the main project (LDDP) was expanded and strengthened for CERC-EAP. Grievances of CERC-EAP was dealt with urgency, which emphasized timely resolution.

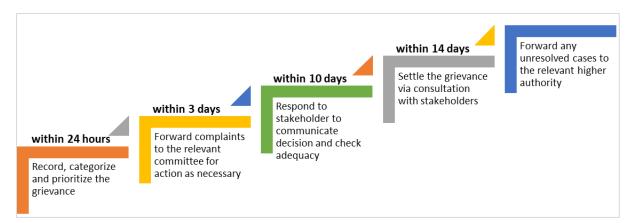


Figure 4.13: GRM Framework

The grievance-related complaints could be lodged directly to the local livestock office. However, the local office submitted received complaints to the PMU with due procedures. Furthermore, beneficiaries could access or visit the local office with their complaints. An appropriate communication mechanism was maintained to redress most of the lodged complaints. The PMU office maintained an electronic database of all beneficiaries through KOBO-toolbox under the LDDP website. Apart from the electronic database, the PMU had maintained a signed hardcopy from UBSIC. After receiving the grievances PIUs started an investigation of the complaint to determine the validity and accuracy.

Most of the complaints were related to cash transfers. Against such complaints, the livestock extension officer first asked the complainer for the bank statement (bKash/Nagad) of at least four-month previous transaction history of his specific account for verification. If it was not resolved at the Upazila level, the PMU undertook additional monitoring to identify the valid reason against the complaints. Assigned monitoring officers checked back the electronic database (soft copy), approved hardcopy from Upazila, ODK excel sheet downloaded from KOBO-toolbox. Firstly, they find out whether the account number provided from Upazila is correctly inputted in ODK or not. In most cases, the numbers were found as wrong input. In some cases, the NID number of hardcopy and ODK data did not match and it was also found that the same NID was registered with two different account numbers which counted as duplicate beneficiaries. For the rest of the cases, the beneficiaries didn't get the payment as they received the money in 1st tranche of EAP. All the cases were handled neutrally and transparently. To ensure impartiality and transparency, the PMU recorded the details of the complaints and their resolutions with the process and the closing procedures. The following documentation was maintained: Complaints application form and registration book, Hard copy filling, Resolution book, and Closing book.

4.10 Social and Environmental Safeguards

The CERC-EAP activities implementation governance and safeguarding the safeguard mechanisms detailed in the Project Implementation Manual. The PMU followed the safeguard arrangement and instruments prepared under the LDDP. Following the ESMF for contingent emergency response, the EAP considered the project activities during the Covid-19 situation. All safety protocols were followed during the implementation of the EAP. The grievance was redressed regarding the environmental and social safeguard issues under the PMU. The Social and environmental Safeguard Officer was responsible for additional Environmental and Social (E&S) due diligence and monitoring.

4.11 Communication

The CERC-EAP project shows excellent communication from DLS to local level farmers. The communication was organized and successful that helped to build trust among famers on the DLS. The locally recruited LSP visited door to door for data collection, beneficiary selection and cross-checking of beneficiaries. Such frequent visiting, cash support and vehicle support in the emergency situation built a good communication channel. Further, the integrated work of UBSIC and CDCC also proves a good outcome in an emergency situation. In the overall implementation, both PMU and PIU proves their coordination and mutual support for accomplishing the project. The GRM developed through LDDP project was actively helped to resolve project related grievance. As the evaluation study found, the GRM worked well that also helped to build trust among farmers to DLS.

4.12 Overall Assessment of Process Evaluation

The overall assessment of process evaluation was estimated considering three indicators: (i) time management in procurement and distribution of goods and services, (ii) nos. of beneficiaries and items added or subtracted, and (ii) management of budget i.e. efficiently handling of the allocated fund. The assessment was between a value of 1 to 3, in which 1 refers to good, 2 to satisfactory and 3 to excellent.

Fowling the assessment, the activity 1 (mass media communication) and 4 (cash transfer) performed excellently. Of the three indicators, financial management was excellent, whereas time management performed the lowest. However, the overall performance was scored 2.29 referring to a satisfactory result. (See table 4.3- & figure 4.13).

Activities	Timing (Procurement & Distribution)	Nos. of beneficiaries/ items	Financial management	Weighted mean	Interpretation
Act-1: COVID-19 related messages broadcasting	3	3	3	3.0	Excellent
Act-2: Sanitization package	1	1	3	1.7	Satisfactory
Act-3:Mobile Veterinary Clinics (MVCs)	1	2	3	2.0	Satisfactory
Act-4: Cash transfer	3	3	3	3.0	Excellent
Act-5: Milk Cream Separator Machines (MCSM)	1	2	3	2.0	Satisfactory
Act-6: Deep freezers	1	3	3	2.3	Satisfactory
Act-7: Rental cost of the milk van	1	2	3	2.0	Satisfactory
Overall result	1.14	2.00	3.00	2.29	Satisfactory

Table 4.3: Overall result of Process Evaluation

* 1=Good, 2= Satisfactory, 3= Excellent

** Evaluation result for fractional value for >0.5 is considered in the next level, & <0.5 is considered in the same level

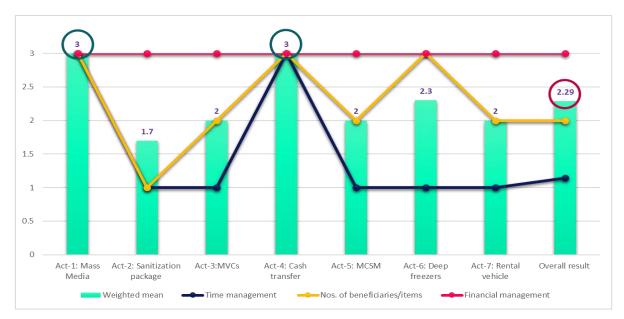


Figure 4.14: Results of process evaluation

5. Impact Evaluation

5.1 Introduction

Bangladesh has a total cattle and buffalo population of 25 million of which 95% is dairy and beef cattle and 5% is buffalo. Bangladesh confirmed first three cases of coronavirus disease (COVID-19) on 8 March, 2020. In order to protect people, the Govt. declared the lockdown from 23rd March 2020. With the increase rate of infections, the lockdown had been extended that disrupted business and value chain. The small farm holders faced difficulty in selling fresh milk, eggs and poultry meat due to the reduced demand in the market. However, people started reducing the consumption of milk, and poultry products thinking that Coronavirus could spread through animal contact. In this aspect, the price of milk and poultry products decreased and the livestock farmers faced challenge to sustain farms and production. In addition, feed prices have increased as transport routes are closed or transport is restricted. Considering the unbearable situation of the farmers, The Department of Livestock through the CERC-EAP provided cash incentives through bank accounts transfer, bKash and Nagad. This cash incentive made a history as it provided the support directly to the beneficiaries, first time in Bangladesh. Getting the amount, farmers reduced challenges in operating farm, sustaining stock and continuing the production. Small farmers benefitted more in tackling the disrupted situation of farm management during the Covid pandemic. Regarding this aspect, the cash incentives made positive impacts on their livelihoods increasing sale and product diversification. On the other hand, the CERC-EAP provided awareness program for building awareness among people to avoid misconception rumoured during the Covid pandemic situation. Besides, rental vehicle services ensured market access, which triggered benefits to sale dairy and poultry product to the market avoiding public gathering and human contact. Milk cream separators had an impact on the diversification of the milk products in which different windows of earning and entrepreneurship developed under the CERC-EAP. This chapter analysed the impacts of those activities on the dairy and poultry farm households according to the findings of the study.

5.2 Cash Transfer

In total, 620,000 livestock farmers whereas 420,000 dairy (for lactating cow) and 200,000 poultry farmers were targeted to provide cash incentives (i.e. Sonali, layers, broiler, and duck farmers) in order to continue their farms and business. Under the CERC-EAP, a total of 597,249 farmers received the cash incentives successfully. This section briefly stated about the impacts of the cash transfers among the beneficiaries.

5.2.1 Sustaining the Stock Size

The Covid-19 is causing immense suffering to people all around the world. The epidemic has farreaching consequences, including financial, economic, and social repercussions. It has had significant negative impressions, particularly in the farming sector. Due to decreasing prices and lockup concerns, dairy and poultry farmers are in dire straits in rural areas. Farmers are accustomed to responding to changing conditions, whether droughts, floods, or pest infestations. Overcoming unforeseeable obstacles is part of the work, but the epidemic poses new challenges for those who produce the food that people rely on. Bangladesh's dairy and poultry farmers were also in great danger when the mighty Covid-19 struck. Each of them was on the verge of a mental breakdown at that very moment the Cash Transfer activity took place. This came in like a ray of hope for the farmers. The farmers received the cash incentive via bank account, bKash, and Nagad. Among the 2037 selected beneficiaries for this evaluation, 2022 people received the cash incentive. Among the dairy farmers, 0.10% received through bank account, 38.43 through bKash, and 6.13% received through Nagad account. On the other hand, among the poultry farmers, 0.25% received through bank account, 46.19% received through bKash, and 8.90% received through Nagad account. In average, about 84.62% beneficiaries received cash via Bkash. The Cash incentive was a tremendous financial and mental support for the farmers. It was unexpected for most farmers, and they were so happy to receive the incentive. This study found that 82.72% of the farmers were able to sustain their stock. The dairy farmers were sub-categorized into three sectors based on their farm animal size, which are C1, C2, and C3.

Dairy: The C1 category could sustain four cows on average with the cash incentive. The C2 category managed to sustain seven cows on average, and the C3 category managed 18 cows on average.

Dairy Category	Average Nos. of Cows
C1	4
C2	7
С3	18

Source: Field Survey, CEGIS, 2022

The poultry farmers were categorized into four (4) different categories. They were Broiler, Duck, Sonali, and Layer. Each category was sub-categorized based on their sizes, such as B1, B2, B3, D1, D2, D3, S1, S2, S3, L1, L2, and L3. The average number of sustained stock by these categories are given separately below.

Broiler: The B1 category farmers could sustain 969 stock on average, while B2 could sustain 1,574 and B3 sustained 3,102 on average.

Category (Poultry)	Average Nos.
B1	969
B2	1,574
B3	3,102

Table 5.2: Size of Sustained Stock- Broiler

Source: Field Survey, CEGIS, 2022

Duck: The duck farmers were also part of this cash incentive program, and they were able to sustain their ducks on a good scale. The D1 category managed to sustain 277 ducks on average. The D2 managed 576 ducks on average, and D3 managed 1,068 ducks on average. Status of sustained category of Duck is given below in Table 5.3.

Table 5.3: Size of Sustained Stock -Duck

Category (Poultry, Duck)	Average Nos.
D1	277
D2	576
D3	1,068

Source: Field Survey, CEGIS, 2022

Sonali: Among the Sonali categorized beneficiaries, S1 category sustained 749 Sonalis on average. S2 manages to sustain 1,309 in average and S3 sustained 2,585 Sonalis in average. The status of sustained stock size of Sonali category given below in Table 5.4.

Category (Poultry, Sonali)	Average Nos
S1	749
S2	1309
\$3	2,585

Table 5.4: Size of Sustained Stock- Sonali

Source: Field Survey, CEGIS, 2022

Layer: Layer farmers managed to sustain a decent amount of their stock after receiving the cash incentives. The L1 farmers managed to sustain 782 in average, the L2 managed 1,269 and the L3 managed 3,164 in average. The average sustained stock size of Layer category is given below in Table 5.5.

Category (Poultry, Layer)	Average Nos
L1	782
L2	1,269
L3	3,164

Table 5.5: Size of Sustained Stock -layer

Source: Field Survey, CEGIS, 2022

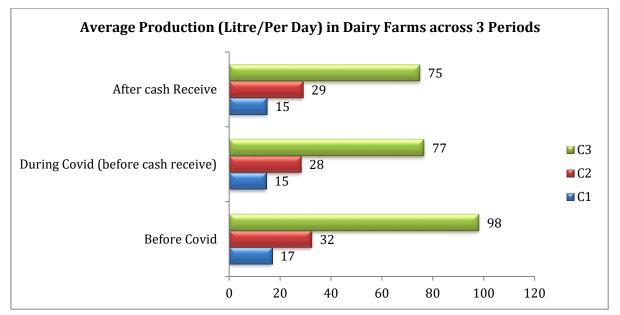
Dairy and poultry farmers benefited greatly from the cash incentive. Most of the farmers mentioned that they were not expecting such assistance, which boosted their confidence after receiving the incentive through their mobile financial services (bKash and Nagad) and back account. The farmers used the cash incentive to buy animal feed, fixed their animal sheds, and bought vaccinations for the animals, repaid loans, and family expenses. In this way, they got the confidence to continue their farms. Mostly the small and medium scale farmers were more satisfied with the received amount than the large scale farmers. The large-scale farmers mentioned that the amount was insufficient compared to their business extent. They used the incentive to buy animal feed which sustained 1-3 days in an average. However, the large-scale farmers expressed their gratitude towards the government for providing such support during the tough time. This cash incentive was massive support for the farmers both mentally and economically. The farmers mentioned that this incentive gave them tremendous mental stamina during that days when everything was uncertain due to the pandemic situation.

5.2.2 Farm Production and Sale Management

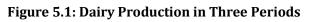
The CERC-EAP was aimed to support and compensate the livestock sector of Bangladesh when the Covid-19 was rampaging the global economy with its full-fledged wrath. As being a developing nation, Bangladesh also had to endure the thrust of the pandemic where its rural farmers got stuck in stark despair. Certainly, the appliance of the cash transfers under the schema of CERC-EAP brought a kind of enthusiasm among the dairy farmers along with its poultry counterparts. As being the largest activation of CERC-EAP, the component demands a representative impact analysis on the business sustenance and continuation of the dairy and poultry farmers. Following section described how dairy and poultry farmer's production and sale managed due to the cash incentives.

Dairy: The cash disbursement in the dairy sector was provided in three categories of milking cows where C1, C2, and C3 stand for 2-5, 6-9, and 10-20 milking cows respectively. Subsequently, the households that met the condition received 5000 BDT for each milking cow. Keeping this initial scenario in mind, the following section is going to trace the trajectory of production and sales dynamics across three periods (before the pandemic, during the pandemic, and after the cash

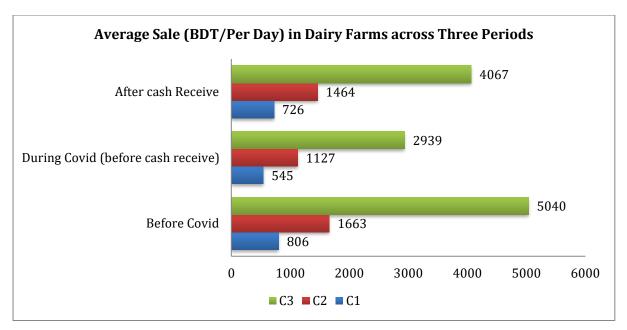
received). The following figure 5.1 reveals that there is no significant decrease in the C1 category. On average production of milk goes down from 17 to 15 liters per day. The C2 category follows almost the same trend accompanied by a 3/4 liters decrease in daily production. But it seems that the pandemic inflicted the most damage to the large farmers (C3 category) fetching an average decline of 21/23 liters per day. Yet the story turns out to be very riveting if the comparison is made before the cash reception and after the cash reception during the pandemic. There is hardly any decline in the 3 categories. It indicates that farmers were able to sustain their production due to cash support during the pandemic.



Source: Field Survey, CEGIS, 2022



Leaping into the sales data, the observation (see figure 5.2) informs that the sales declined across the 3 categories during the pandemic (before cash was received). Again the story appears highly impactful if the comparison is drawn between the later periods (before and after cash provided). After the cash support, the farmers of C1 and C2 categories were able to increase their sales on average 33% (from 545 to 726 BDT) and 30% (from 1,127 to 1,464 BDT) whereas the large farmers (C3) managed to increase the sale on account of 28% (from 2939 to 4067 BDT) approximately. Certainly, the impact of cash support has been realized considerably. Nonetheless, precaution should be taken into account while interpreting the results. It is due to the fact that there might be other factors that played a vital role in reorienting the production and sales growth. Two factors can be quoted to defend the significant increase in sales. Firstly, it is the behavioural change among the farmers due to the developed awareness. This improvement allowed the farmers to get back into normal track of life, which in turn, propelled their business operation more than ever keeping aside the unnecessary fear which halted the livelihood previously. Secondly, it was the increase in the price of milk per liter after the pandemic condition improved. On average, the price of milk varied from 48 to 55 BDT per liter across the regions whereas the price was standstill at 37/38 BDT per liter during the pandemic.



Source: Field Survey, CEGIS, 2022

Figure 5.2: Dairy Sales in Three Periods

Poultry: Bangladesh has a huge market for commercial poultry production. The major source of animal protein for Bangladeshis is poultry products including meat and eggs. There are thousands of poultry farmers in Bangladesh and the Covid-19 made every farmer's life difficult.

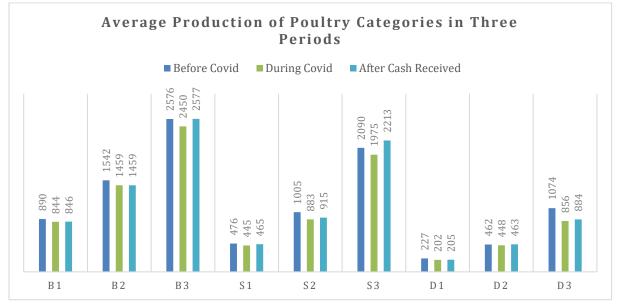
During the Covid-19, the Cash incentive was given to the dairy and the poultry farmers. Broiler, Sonali, Duck, and Layer farms among the poultry farmers received the cash incentive. These categories were sub-categorized based on the size of their farm, and they received cash incentives accordingly. It needs to be kept in mind that the main reason this cash incentive was given is so that the farmers can sustain their stock. Furthermore, from CEGIS's analysis, it can be seen that the average number shows that almost all the farmers managed to sustain their stock.

In some cases, the sustained average number increased, and in some cases, it decreased, but they managed to sustain their animals and production because of incentives. For instance, the B1 subcategory, before Covid, they had 890 broilers on average. When Covid hit the whole country, they had 844 broilers, and after they received the incentive, they managed to sustain 846 broilers on average.

On the other hand, the B2 sub-category slightly decreased during the Covid period, but they could maintain the same amount even after receiving the cash. Before Covid, they had 1,542 on average, and during and after cash was given, they managed to sustain 1,459 broilers on average.

The S1 category farmers had 476 chickens on average before the epidemic, decreasing little during Covid. Later, they squeezed the number a little higher from 445 to 465 chickens. The S2 category had ups and downs during this timeline. They had 1005 before Covid, 883 during Covid, and 915 after receiving the cash. However, the S3 category made good progress after receiving the cash. They went from 1,975 during Covid to 2213 chickens on average after receiving the cash. Before Covid, they had 2,090 chickens. The D1 sub-category was also able to sustain its stock.

The ducks went from 227 before Covid to 202 during Covid and later managed to sustain 205 ducks on average. The D2 farmers also had a similar experience. Before Covid, they had 462 ducks that reduced to 448 during Covid, and later it rose a little higher to 463 ducks. The D3 category had a vast downfall during the Covid situation. They went from 1,074 ducks before Covid on average to 856



ducks during covid. Fortunately, they were able to sustain 884 ducks on average after receiving the cash. The production rates of Broiler, Sonali and Duck are given below Figure 5.3

Source: Field Survey, CEGIS, 2022

Figure 5.3: Poultry Production in Three Periods

Following case study stated how the cash transfer helped farmers to sustain their farms and continue production and impacted on the livelihoods, even inspired people to be entrepreneurs.

Yusuf Ali is a resident of Fultola Bazar, which is located at Dinajpur Sadar Upazila. Yusuf Ali is not only a successful entrepreneur but also an influencer, a trainer, a motivator. But the path towards success was not that easy for him. He had to overcome a huge barrier to reach where he stands today. Yusuf is in the poultry business for the last 4 years. Suddenly, the mighty COVID-19 struck really hard and tore down everything. The lockdown imposed by the Government made it difficult for everyone to move from their houses. The prices fell badly. The regular prices of Sonali chicken were around BDT 150-180 each (average) but during the COVID-19 the prices were down to BDT 100-120 each (average). At that moment a rumour came out of nowhere. People were heard that animals also spread COVID -19 (corona virus disease) and consuming animals, especially poultry birds can cause COVID-19. Very soon this misconception was spread like wildfire among the people and people were avoiding poultry products. This also created a huge impact on Yusuf's

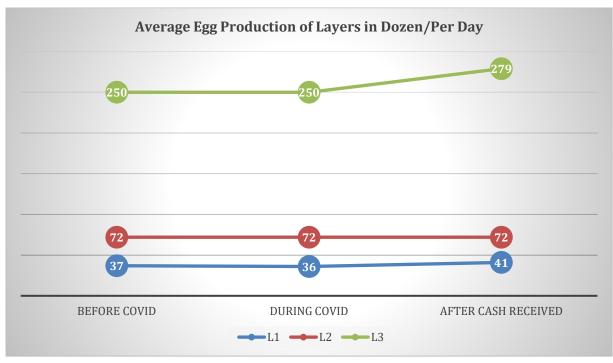
business. MD. Yusuf Ali was finding it hard to sell his products, difficult to buy food for the Sonalis, and to maintain his family expenses. All these were very much problematic for him to run the farm and sadly, he had to shut down his poultry farm. When the LSP took his name as a S3 for the incentive, he had 4,500 Sonali chicken at his farm but by the time he received the incentive, his business was already shut down. He received



BDT 11,250 as an incentive. After receiving the incentive money, he gained a lot of mental support, and this give him fuel to start the business again. MD Yusuf started his business again with the incentive amount in addition to a loan taken by him. According to him, "another positive work was the awareness building. There

was a lot of broadcast in the electronic media that animals do not transmit corona virus disease. Rather, increasing protein intake can help people to have better resistance against COVID-19. This helped to remove the rumors and boosted the sale again. At present, he has 15,000 Sonali chickens in his farm. This time he decided to help the people of his village so that they could also do something in their own. He started to gather people who are interested in the poultry business, motivated them, trained them, and helped them to construct poultry farms in their own. With his effort, he was able to train 10 (ten) new entrepreneurs from his village. All these people (10) have their poultry farms and they are now successful poultry farmers.

The L1 farmers managed to sustain their stock and increased their production. Their layer chickens produced 37 dozen eggs daily on average before Covid. The average number stood at 36 dozen daily during Covid, and the number rose to 41 dozens after receiving the cash. The L2 category managed to maintain consistency throughout all three periods. The average production of egg of L2 farmers stood at 72 dozen during all three phases. The L3 category managed to sustain and increase their stock like the L1 category. Before and during Covid, they had 250 dozen of eggs daily, and after receiving the cash, the number stood at 279. The productions of eggs (dozens) throughout all three phases are given below.



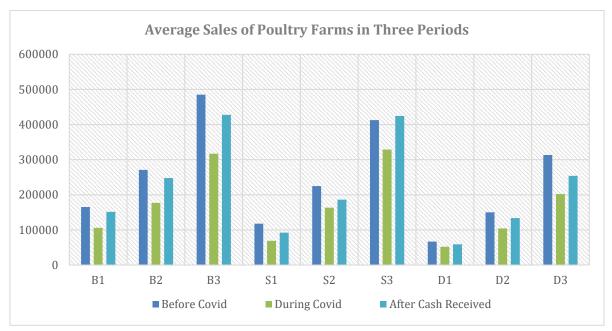
Source: Field Survey, CEGIS, 2022

Figure 5.4: Egg Production of Layer Categories in Three Periods

Farmers mentioned that this cash transfer helped them in an unthinkable way. With the incentive, they bought food for their farm animals, they fixed the farm sheds, and they bought vaccines for the animals and used it in their family expenses. Many farmers mentioned that they were able to re-pay the loan they took and many stated that they did not had to take loans because of this incentive. Another very important part was described by the farmers which is the mental support. The cash incentive acted as a massive mental support for them which helped them to restore their confidence. They were on the verge of giving up and some even gave up but the incentive acted like a painkiller. They were able to restore their confidence, which helped them to continue the farm which they did.

In the poultry sector, 200,000 farming households received cash support. The sector has been segregated into four large categories such as Sonali, Broiler, Layer, and Duck. Again, each category has been further classified into 3 categories to make the support more inclusive and welcome the variation

more among the farmers. The purpose of cash support was aimed to make a quick recovery from the pandemic shock that has been impeding the farmers' livelihood badly. Hence, it is imperative to diagnose the trail of cash support in three phases namely before the covid, during the covid, and after the cash provided. The following section will make a mild attempt to figure out the pathway of the impact on the sales management of the poultry farmers.

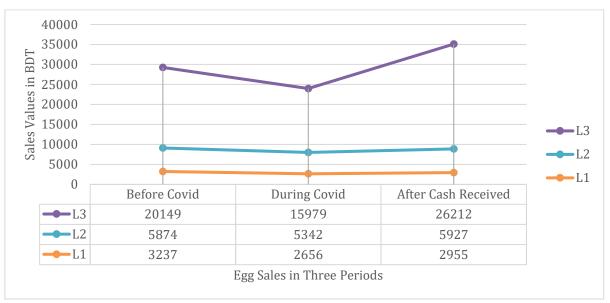




Quick scanning of sales data notifies that the broiler farmers had been affected severely by the pandemic shock with following the sales decline from 165,000 to 105,830 BDT (36%) for B1, from 270,749 to 177,138 BDT for B2, and from 485,000 to 316,806 BDT for B3 if the comparison is made between before and during covid. But the Sonali farmers incurred more losses during the pandemic accompanying a similar sort of decline in sales. It seems that medium and large farmers got affected mostly compared to small ones (S1). The duck farmers also embraced the same fate of loading the similar brunt of the damage before the cash support. Among them, it portrays also an identical pattern where medium (D2) and large farmers (D3) had the most damaging effect. The sales of ducks fell from 150,000 to 104,081 BDT for D2 and from 313,045 to 201,843 BDT.

To sense the degree of cash support among the farmers, the comparison is drawn before and after the cash support. It appears that the broiler farmers were able to increase their sales from 105,830 to 151,500 BDT for B1, from 177,138 to 247,474 BDT for B2 and from 316,806 to 427,666 BDT, in turn, which indicates their sustenance and business continuation in the post-pandemic condition. However, they were lagged only by a 6% (B1), 8.5% (B2) or 12% (B3) amount compared to the pre-pandemic condition. In the case of Sonali farmers, it is further noticed that the recovery from the loss was more realized among the large farmers (S3) than those of small (S1) and medium (S2) ones. A similar conclusion can be drawn among the duck farmers where the cash incentive enabled them to sustain the business but could not afford them to get back to the pre-pandemic condition. It looks that large duck farmers (D3) endured the brunt of the pandemic shock mostly and left far behind the pre-Covid condition. As the figure 5.5 suggests, the sales value improved from 201,843 to 254,229 BDT hiking a 26% increase, yet it could not reach the pre-pandemic number.

To understand the sales dynamics of the layer, careful reading is needed. As to the convention, layers are usually farmed for egg production. Hence, the sales of eggs are taken into the consideration and



the numbers of eggs were counted in dozens. But it does not necessarily mean that layers remain unsold. Rather the sales follow when the laying capacity of the layers expires.

Figure 5.6: Egg Sales of Layers in Three Periods

The inspection of the aforementioned graph (5.6) will tell the whole story from a representative perspective. During the pandemic, the sales of the eggs went down from 3,237 to 2,656 BDT for L1, from 5,874 to 5,342 BDT for L2, and from 20,149 to 15,979 BDT for L3. But more distributional analysis hints that the effect of the shock is more realized among the large farmers (L3) bringing a 21% (4170) decrease of sales. To track the sales variation after the cash support, it can be presumed that the large and medium farmers made remarkable success to increase the sales and even surpass it to the pre-pandemic condition whereas small ones lagged behind. It seems that all the layer farmers were able to sustain their business. Hence, it can be inferred that the impact of the cash incentive is more robust in the layers category than that of other poultry sectors.

There are several points to ponder over. Firstly, all values have been represented in average (mean) values. Usually, such mean values fall victim to the bias of extreme values in the observations. Due to this statistical limitation, extra vigilance should be taken into account while interpreting all the data. Secondly, the price increase might play a vital role to inflate values after the improvement of the pandemic condition.

5.2.3 Gender Segregated Analysis on Production and Sale Management

As an emerging sector, dairy farming shows promising potential in Bangladesh. In the last decade (2010-20), milk production has increased more than three times (300%) which also indicates the high density of cattle production in the country. Yet recent data shows that there is a 30% gap between the demand and supply of milk (MOFL, 2020). To meet this huge demand, policymaking should be designed in a way so that the dairy sector will be efficient and inclusive for both male and female farmers.

Admitting the gender sensitivity in the rural areas, it is highly decisive that both male and female farmers are engaging in the sector more evenly. Hence, it was planned to incorporate 25% female farmers in the study design. But due to the lack of availability, 18 % (382) of female farmers were included.

The field inspection informs that farm management (either in the poultry or dairy sector) is often maintained by the housewives though these are owned by their husbands. The following sections analysed the comparative trend of cash incentives among male and female farmers across the three periods.

Trend of Dairy Production

To assess the primary impact on dairy production, the following figure will favour us understanding the comparative impact of cash support in three subcategories namely C1, C2, and C3. A quick review of the figure reveals that large farmers (C3: male) had been inflicted by the pandemic shock bringing a 42% (from 135 to 79) decrease in milk production. Further, it has been noticed that a huge production gap remains between male and female farmers across the subcategories whereas the difference appears significant in C3 cattle production. Hence, it can be deemed that number of female farmers fall drastically as the stock size increases.

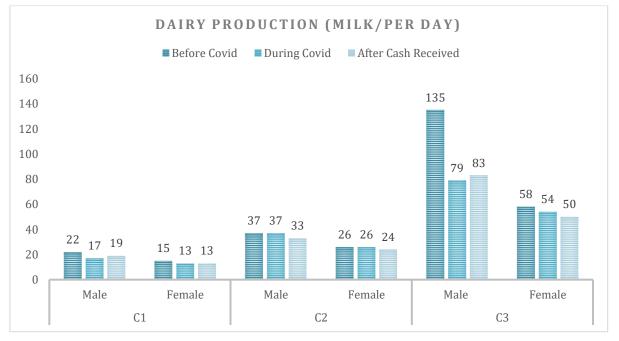


Figure 5.7: Dairy Production for Male and Female Farmers

Additional inspection (figure 5.7) shows that after the cash support, male farmers were able to sustain their production in C1 and C3. It indicates that they managed to avoid further loss due to cash support. But the same conclusion cannot be drawn for medium (C2) scale farmers. In the case of female farmers (see figure 5.7), it seems that small (C1) and medium (C2) ones were able to sustain their production though they could not reach the pre-pandemic production level whereas a gradual decline of 7.5% (from 54 to 50) has been realized for large female farmers (C3) even after the cash support. It might be due to the fact that women are often unable to have the necessary access to loans and other institutional facilities.

Trend of Dairy Sales

To track down the impact of cash support, sales data of milk/ per day will be quite useful. From the following graph (5.8), it is observed that on average both male and female farmers were able to sustain their businesses. As noticed earlier, it seems that the pandemic shock largely impacted large farmers for both male and female groups with bringing 52% (from 6,320 to 3,025) and 44% (from 2,878 to 1,612 BDT) respective decreases.

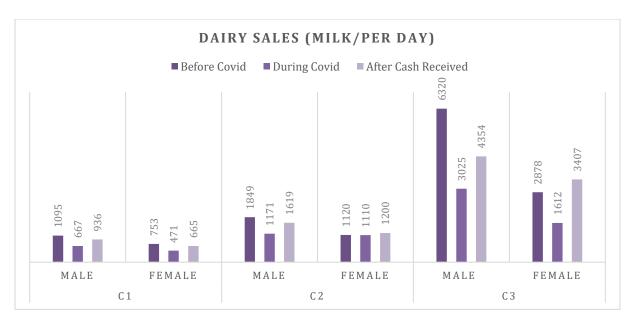


Figure 5.8: Dairy Sales for Male and Female Farmers

From the surprising note, it appears that female large farmers were able to surpass even the prepandemic condition whereas small and medium farmers could not attain that (see figure 5.8). Such a case only can arise when a price hike follows a steeper pathway (excessive increase of milk price).

Trend of Poultry Production

Over the last decade, the poultry industry has shown impressive development in meat and egg production through attaining self-sufficiency. But the recent pandemic brought destructive havoc to it. Hence, to get back to previous production and sales level, farmers were in dire need of cash support for their farm management and sales operation. The cash support under the scheme of CERC-EAP brought immense relief to the farmers to escape the plight of the pandemic. The subsequent section will provide some rudimentary hints to it.

From the features of the following graphs, it appears that the most damaging effect was realized in large farms across the subcategories (B3, S3, and D3). It is further noticed that on average all farmers managed to sustain their production except large Sonali farmers, especially female ones. In this regard, the production number reduced from 2,312 to 2,150 BDT for S3 female farmers.

In case of female farmers, production has been decreased across the subcategories unlike small Sonali farmers (S1). Besides, all farmers got able to sustain their production after the cash support except large broiler farmers (B3) and small duck farmers (D1 and D2). Though average production stays low for female farmers as compared to their male counterparts, yet female broiler farmers' business extent looks much higher in case of B3 (see figure 5.9).

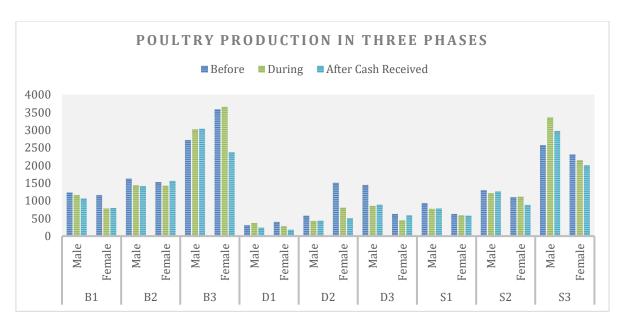


Figure 5.9: Average Production in Poultry for Male and Female Farmers across the Subcategories

Trend of Poultry Sales

Examining the sales distribution (figure 5.10), it displays that the sale coverage of female farmers remains lower than that of male ones. As to the usual inspection, the pandemic shock melted the business operation significantly for both gender. Yet the extent of shock does not appear even. For instance, average sales decreased considerably among the medium and large farmers (B2, B3, D3, and S3) accompanying a 22% (from 641,541 to 502,014 BDT and from 393,750 to 299,000 BDT) 24% downturn respectively in B3 and S3 for male famers.

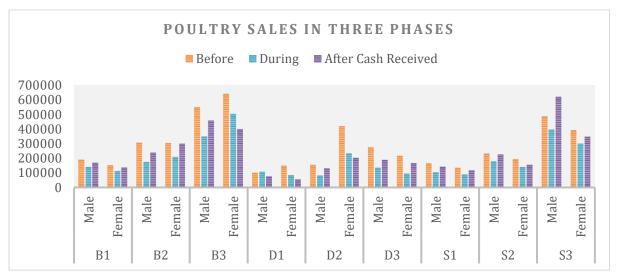


Figure 5.10: Average Sales in Poultry for Male and Female Farmers across the Subcategories

To assess the cash incentive, it can be presumed that it was in great assistance to all farmers. The data portrays that all the farmers were able to sustain their businesses (except D1 and B3 of female ones) after the cash support. To be more specific, it has been observed that large female farmers of Sonali were able to increase their sales by 16% (from 299,000 to 347,500) after the cash support whereas male farmers managed to reach the pre-pandemic level.

Trend in Layer (Egg-Dozen) Production

Since layer chickens are mainly produced for the purpose of selling eggs, the production and the sales of the eggs (in Dozen) per day were taken into consideration. To make sense of the production and sales, the data were segregated from other poultry items.

Inspecting the following the graph (figure 5.11), it appears that male farmers' business extent remains higher compared to the female farmers. Apart from that, the pandemic shock inflicted all kinds of farmers though not in the same extent. On average a 10 to 12 % of decrease was realized across the subcategories of eggs production except medium scale (L2) female farmers whose production reduced by 30% (from 175 to 123) dozen.

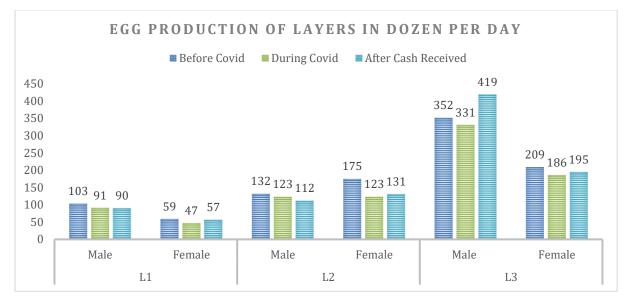


Figure 5.11: Average Production of Eggs in Dozens for Both Gender

If the comparison is drawn between the pandemic and after the cash support, it looks that all of the farmers (except medium male farmers) were able to increase their production which is an indication of sustaining the business after the cash incentive. More surprisingly, male farmers managed to surpass the pre-pandemic condition making the improvement from 352 to 419 dozen for L3.

Trend of Layer (Egg-Dozen) Sales

To examine the impact of cash support, it is imperative to delve more into the sales data. Thus, screening the following figure 5.12 shows that female farmers' sales are lower than male farmers across the subcategories where medium farmers (L2) stand exceptional. As observed earlier, the sales data also follow the same trend of decline due to the pandemic. Small, medium and large farmers grossly reduced their sales from 5,936 to 3,564 BDT and from 9,974 to 6,134 BDT per day with a 39% decrease in L1 and L2 for male farmers while fetching a 24% (from 13,645 to 10,291 BDT) decrease for large farmers. In case of female farmers, the decline equals 30% (from 10,857 to 7,608 BDT) for large farms (L3).

If the comparison is drawn between the pandemic and after the cash support, it is noticed that all male and female farmers were able to increase their sales after the cash support except medium female farmers. For instance, large male farmers were able to generate the sales up to 130% whereas female ones made a 30% of increase.

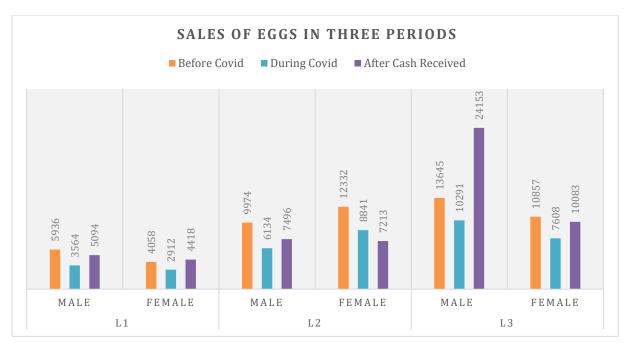


Figure 5.12: Average Sales of Eggs in Dozens for Both Gender

The overall comparative analysis conveys this message that gender disparity was sensed in terms of production and sales capacity though the pandemic shock brought much damage to the large farmers either they belong to male or female groups. But the performance of cash support stands high to sustain the business during the pandemic by bringing new hope to the farmers.

5.3 Mass Media Communication Program

Capturing social opinions is a crucial issue during the Covid-19 pandemic. With the outbreak of the COVID-19 pandemic, the discussions of related topics have increased exponentially in social media, with a large number of rumours on the Internet, which highly impede people. In Bangladesh, regarding the rumours, people in large scale stopped to consume meat and dairy products. People thought that Covid-19 could be spread through animal contact in which they stopped consuming. As a result, the market price of dairy and poultry products disrupted the value chain of those products interrupted. Considering this aspect, the CERC-EAP started campaigning through electronic, print and social media for increasing awareness among the people. Under the EAP, different TVC, talk show, bulletin etc. helped people to be convinced about the issue and the misconception on that particular issues stared solving. This section analysed the impacts of the awareness program among the beneficiaries.

5.3.1 Status of Beneficiaries who listen to bulletin on COVID-19

When livestock food supply chains came under threat during the COVID-19 lockdown in Bangladesh, even farmers had thrown milk on the street because they were unable to sell it. The immediate actions of CERC activity by the LDDP restored livestock food supply chains and benefitted livestock farmers and consumers across the country. Field survey data shows that 83.7% of beneficiaries received messages on COVID- 19. Awareness related messages conveyed through different print and electronic media (i.e. TV, Radio).

5.3.2 Media Coverage of Awareness Program

It was really a great challenge for the farm holders to continue farming at that time. The CERC project has taken initiatives to make aware people of the importance of taking protein for health to increase body immunities. The project broadcasted different awareness building programs as TVC Monologue,

Dialogue, Documentary, Talk show, scrolling, drama and documentary on "immediate response to Corona", "Consumption of Milk, Meat and Eggs to fight against Corona", "Continuation of Farming Business to contribute country's Food Security during Corona period", "importance of consumption of Animal Protein during corona situation", "Drama on importance of feeding silage to Farm Animal", "Drama on importance of Farm Hygiene and Workers Health Safety during Covid-19 lockdown", "Documentary on Development of EAP by LDDP for Livestock Sector", "Documentary on Contribution of CERC-EAP for Business Continuation and Supply Chain Restoration", "Monologue on Child nutrition Consumption of Milk, Meat and Eggs", "Monologue on low cost nutrition consumption of Milk, Meat and Eggs", "TV scrolling on world milk day and milk week", "TV Talk show on importance of milk and milk product and product diversification", and "TV Talk show on livestock mobile marketing and Livestock Exhibition".

During the COVID-19 pandemic period all the people became panicked, they were not sure what to do and what not to do. They were sometimes misguided by unscientific rumours through unverified social media, which resulted in creating the situation more complex for the people of all ages in the country. People in different areas discontinued consuming meat, milk, eggs due to the effect of rumours and unscientific news circulated by social networks. Moreover, the lack of transportation facilities and the absence of value chain actors have hampered the proper distribution. The pandemic response depends on efficient communication of behaviour change advice. To reach many people, the use of mass media and technology is an important key. During the COVID-19 pandemic period, mass media has played a very important role to aware people both in city and rural areas. During the field survey, 86.3 % of beneficiaries responded positively about the benefits of the awareness program on COVID-19 issues. The respondents said that different awareness-building programs have changed their behavioural intentions in rearing domestic animals (cow, duck, poultry etc.)

The field survey data revealed that the highest respondents (54%) became aware of COVID 19 through television media whereas they watched different awareness related TVC and Talk shows. The lowest percentage of respondents is through radio (2.5) as the number of radio as because nowadays in Bangladesh radio is not a popular media. On the other hand, about 23.3% of the respondents found to became aware of the COVID 19 issues by using social media.

5.3.3 Benefits of Awareness Program to understand animals and birds do not transmit the Covid-19

In Bangladesh, on the various social networks, several unverified news has been circulated regarding domestic animals, especially chickens, that are able to transmit COVID-19 virus to humans and this has led to a further drop in demand. There is no scientific evidence of viral transmission from animals to humans, neither via direct contact nor via meat consumption. COVID-19 is a human pandemic that potentially represents a risk for domestic animals. All such types of rumours and uncertainty have discouraged farmers from continuing the production of livestock which severely affected the livelihood of livestock farmers and the economy of the country as well. Livestock food supply chains then came under threat during the COVID-19 lockdown in Bangladesh; even farmers had thrown milk on the street because they were unable to sell it. Awareness programs through mass media against those rumours have improved the situation. Immediate actions of CERC-EAP activities by the LDDP restored livestock food supply chains and benefitted livestock farmers and consumers across the country. According to this study, about 93.1% of respondents said that they were benefitted from the awareness program to understand animals and birds do not transmit the COVID-19 virus.

5.3.4 Benefits of Awareness Program to inform Covid-19 virus spread human to human contact

The COVID-19 virus has transmitted directly from humans to humans only; there has not been any report on the virus to have gone through animals or birds and infected humans, Data reveals that about 98.9% of respondents were benefitted from the awareness program to inform COVID-19 virus spread from human to human contact only. Through this program using different media, the mass people came to know that, the virus spreads mainly between people who are in close contact with each other. The virus can spread from an infected person's mouth or nose, People may also become infected when touching their eyes, nose, or mouth after touching surfaces or objects that have been contaminated by the virus. It only spread human-to-human contact only, not from domestic animals. After the proclamation of this news people became aware of how the Corona virus spreads out. Undoubtedly, this type of publicity has impacted positively on the dairy and poultry business.

5.3.5 Impact to know that protein intake from animal source food (meat, milk, eggs) increase resilience by people perception

Good food can boost resilience, whereas improper and unhealthy food intake can lead to malnutrition and hence make the body vulnerable to viral infections thus protein should be focused to fight against the COVID-19 virus. Protein deficiency is linked to impaired immune system function. Less intake of protein will make the body more prone to attacks from corona virus. Protein is mainly found in animal products like chicken, beef or fish and dairy products and from various plant products. During the lockdown period deficiency of food has been created due to lack of proper transportation and lack of proper knowledge of in taking food enriched with protein. People were in a dilemma about having food in this situation. In this situation, mass media played a significant role to make people aware of what to do and what not to do. With CERC project people came to know that protein (meat, milk, and egg) is very essential to fight against COVID-19. It will boost the immunity of the body. Survey data says that about 93% of participants showed their positive view about the proclamation of having animal source food to increase resilience through mass media. It helped them to start their livestock business again. And the demand of meat, milk and eggs has increased also in the market. Impact to know that protein intake from animal source food (meat, milk, eggs) increase resilience by people perception.

5.3.6 Overall Benefits of Awareness Programs

The project shared these messages to the mass people through media make conscious that, domestic birds or animals do not transmit the COVID-19 virus, livestock products and animal source food, in general, are not the vehicle for COVID-19. People in different areas were behaving recklessly (too much social contract and misconception about food habits) in Bangladesh. But the programs taken by the government has developed awareness, changed in misconception, and changed in food habit of the mass people. And the only way to outreach to the people is through mass media. Data shows that, about 50% of the respondents developed their awareness through mass media (print and electronic). They had a misconception about rearing animals and poultry during the COVID-19 pandemic. About 25% and 22.9% of the respondents changed their misconceptions and changed their food habits through mass media respectively.

Division	Awareness developed	Change in misconception	Change in food habit	Others
DIVISION	(%)	(%)	(%)	(%)
Barishal	42.9	29.5	24.5	3.1
Chattogram	49.5	27.4	18.2	5.0
Dhaka	52.8	9.8	34.6	2.8
Khulna	53.6	22.2	24.3	0.0
Mymensingh	54.4	40.8	3.9	1.0
Rajshahi	54.0	25.6	20.2	0.2
Rangpur	43.3	27.9	28.5	0.4
Sylhet	49.8	21.2	29.0	0.0
Average	50.0	25.6	22.9	1.5

Table 5.6: Overall Benefits of Awareness Programs to the Beneficiary Level

Source: Field Survey, CEGIS, 2022

5.4 Milk Cream Separator Machines

5.4.1 Product Diversification

The provision of Milk Cream Separator Machines (MCSMs) by the CERC-EAP was one of the innovative ideas to pave the way for diversification in the dairy sector. To facilitate this support, the CERC-EAP distributed 1500 MCSMs of different capacities (spanning from 50 to 500 lph) among the dairy farmers, producer groups, or associations in 3 categories. The following distributional matrix might help to capture the main objective of Activity-5 where diversification of dairy products was aimed to sustain and increase the business expansion during the pandemic.

Table 5.7: Distributional Matrix of MCSMs

Capacity/ Others	Machine Type	Quantity Distributed	Beneficiary Type	Coverage Region
350-500 lph	Electrical	400	Milk Collection Centers	North West and South West
150-200 lph	Electrical	500	Large Farms	Major Milk Producing Areas
50-100 lph	Manual/Electrical	600	Medium Farms	Primary and Secondary Milk Producing Areas
Total		1500		Whole Country

Source: Internal Evaluation Report, 2021

During the pandemic, most of the individual dairy farmers or associations struggled to sell their daily produced milk. Besides, many farmers did not have the facility of the storage system. Such conditions got aggravated further and forced farmers either to sell milk below the regular price or keep these unsold which resulted in waste.

The provision of MCSM brought a composite solution to the aforementioned problems of medium and large dairy farmers. Consequently, they were able to transform milk into other dairy products such as cream, curd, Ghee, and butter. In most cases, it seems that farmers either produced cream or Ghee. Moreover, farmers are required to take approval or license from BSTI in the case of the production of Ghee. Certainly, it resolved the problem of unsold and wasted milk.

The observation reveals that the farmers (receivers of MCSMs) were more interested in producing cream compared to Ghee due to its high demand in their accessible selling locations. Further, it is noticed that the distributed MCSMs are mostly manual rather than electrical. However, the facility of

MCSMs opened the gateway of business expansion considerably and lifted the fear of uncertainty in milk selling during any kind of emergency. Hence, farmers expressed their utmost gratitude and contentment towards the Department of Livestock Service and the Government bringing such handy and up-to-date equipment to the doors of their farming house. Due to such surprise support from the DLS, the business confidence had grown among the farmers more than ever.

As the pandemic hit all sectors of Bangladesh indiscriminately, the dairy sector was no different in terms of casualty. Due to administrative lockdown and other restrictions, the sale of milk went down grossly. Certainly, such a condition lessened the business morale and enthusiasm severely among the dairy farmers.

But the scenario improved remarkably when the provision of MCSMs reached the doors of farmhouses. The transformation facility of MCSMs created new hope to diversify their unsold milk. If farmers do not get their expected price of milk in the market, they just transform milk into cream, curd, Ghee, or other prospective products. The field inspection showed that farmers are able to produce approximately 50 g Ghee and 120 g cream from 1 kg milk. But it appears that the transformation capacity might vary according to the quality of MCSM. In this regard, electrical machines show more proficiency and profitability than manual ones.

Dairy Farmer diversified Milk Product using Milk Cream Separator Machine

Mr. Tuhin, a dairy farmer from Dinajpur, deserves attention for his tremendous success in dairy farming. In spite of being a graduate of Finance, he stepped in the farming only with two cows in 2004. Now his farm has more than 80 cows that produce 400 liters milk per day. During the pandemic, he was struggling to sell all his produced milk. Because the unforeseen worry and market problem he decreased farm stock. Even, he thought to change his profession.

Figure: Dairy Products

As a large farmer and entrepreneur, he started thinking about new opportunities. He several time talked with DLS officials about his problem and grief. With the starting of CERC-EAP, he heard about the Milk Cream Separator and thinking about the turn in which he could make business on Milk product. Finally, with the matched eligibility, he received the Milk cream separator machine.

But the provision of milk cream separator machine became a blessing to his farm. He has been diversifying the dairy products since receiving the machine. Now, Mr. Tuhin is planning to set up a new showroom where the diversified dairy products will be sold. He expressed his special gratitude to DLS for receiving.



Figure: Mr. Tuhin at His Farm



Figure: Milk Cream Separator Machine at Operation

Figure 5. 13: Case Study on MCSM Receiver

In general, farmers sold cream 300/350 BDT per kg whereas Ghee was sold at a rate of 800/1000 BDT per kg. Additionally, it was observed that their primary and secondary consumers were the local sweet shops, restaurants, and village people. In rare cases, some amount of Ghee was sold in neighboring urban, suburban cities, or Dhaka. Finally, the upshot of the story is that the provision of MCSMs aided the farmers to increase their sales and profits along with avoiding huge losses during the pandemic.

Since MCSMs were kind of new instruments, they threw some challenges before the farmers. Firstly, some of the farmers did not receive proper training though most of the processors were offered. Secondly, some machines (manual ones) showed technical defects which resulted in lower transformation capacity and profitability. Hence, the farmers are expecting constant monitoring from the local livestock office.

5.5 Deep Freezer

The majority of the farmers faced difficulties to continue their farming operations because of pandemic situation. As a result, the Government of Bangladesh, the CERC-EAP provide different support to help farmers for the sustainability of farms. However, deep freezer distributed among Upazila Livestock Office to stock the animal vaccines. At the beginning of Covid-19, the whole country was under lockdown, and at that moment it was very hard to distribute vaccines on a regular basis. According to study findings, the average level of satisfaction with this service was 4.3 out of 5. The ULOs mentioned positive response while mentioning about the timeliness of delivery of the freezer. They were also very positive about the quality of the freezer. With this potential activities, vaccines stored and provided to the farmers.

5.6 Rental Vehicle Services

The CERC-EAP provided rental service to make an equilibrium position of supply chain of milk and eggs. The initiative took place across all 61 districts and around 465 upazillas across the country. Guidelines were set up and followed across all districts to ensure systematic flow of services, and the monitoring units assured quality of the products. District and Upazila DLS offices hired vehicles to collect animal-sourced products directly from the doorsteps of the livestock farmers and distributed them to designated distribution centres. Farmers were readily paid at the farm gate and at distribution centres, customers came in queues to collect the products at a discounted farm-gate price. The officers formed a three-member local committee to assess the local cost of transportation at the regional level. Farmers' associations also came forward to help, providing lists of livestock farmers and contributing to foot the van rental bill whenever it exceeded the ceiling set by the project. During the Covid-19 pandemic and lockdown stopped most of the opportunities to sell products physically. Before lockdown, farmers were dependent mostly on the physical market. Regarding this aspect, the rental vehicle service helped people to continue their sell avoiding human contact.

As the hard lockdown is strictly maintained to the city corporation, Paurashava and urban areas of the Sadar upazilas therefore DLS rented vehicle services were provided to focusing of these area. During household survey of evaluation phase, 68 beneficiaries (3.5% of total surveyed farmers) including 64 male and 4 female farmers were found in the surveyed household who received rental vehicle service and also received the cash compensation from the DLS.





Figure 5.14: People Selling Milk and Eggs through Rental Services

5.6.1 Milk Selling through Rented Vehicle

Farmers of each division more or less received this service for selling their milk during Covid pandemic situation. Average 504 liter (per day) milk by the farmers in which the lowest selling quantity was 10 liter (per day) and the highest selling quantity was 3000 liter (per day).

5.6.2 Meat Selling through Rented Vehicle

Both male and female farmers are found to be received rental vehicle support for meat selling purposes during the Covid 19 pandemic situation. As per the surveyed beneficiaries, average 1631 kg meat (Per day) were sold through the rented vehicle support. On the other hand, surveyed female farmers sold average 1330 kg meat through this rental vehicle service. Overall, the highest and lowest quantity of selling were 13,500 kg and 10 kg (per day) respectively.

5.6.3 Egg Selling through Rented Vehicle

The survey findings depicted that average the male farmers sold 303 dozens of eggs whereas the female farmer sold average 24 dozens (per day) of eggs. During this period of lockdown, it helped farmers to continue the business and managed their selling.

5.6.4 Overall Benefits of Rented Vehicle Service

Reason of using rental vehicle support were asked to the beneficiary farmers. According to their response, highest 24% farmers used this rental service for the continuation of their business during Covid lockdown situation (Figure 5.9). About 23% farmers used this service for reducing the loss followed by 17% for managing income and 14% for getting access to the market.

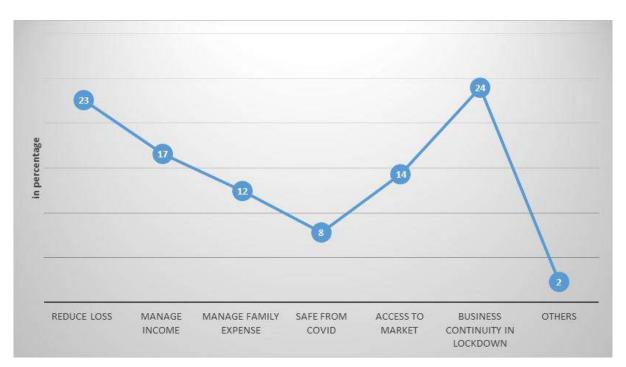


Figure 5.15: Benefits of Rental Vehicle Service

5.7 Impact of Sanitization Packages

COVID-19 has wreaked havoc all over the world. In terms of economics, the world economy declined by 4.3 percent in 2020. Covid-19 created issues in each and every sector. Farming is a huge sector for Bangladesh where millions depend on it. The Covid-19 created huge impact on the farming sector and this made the life unimaginable for all the farmers. As a result, CERC-EAP project was undertaken to assist the dairy and poultry farmers of Bangladesh. There were different kind of activities among this project and cash incentive was one of the main focus. The LSPs were in charge of visiting farmers from house to house and collect their data. While collecting the data, the Upazila Livestock Office provided the LSPs all the necessary help. Since, it was during the Covid period, proper safety measurements needed to be taken for the LSPs because they were working on the field. Under the CERC-EAP they received sanitization packages for ensuring protection. The sanitization package included masks, PPE, and hand sanitizers. The Livestock officials mentioned that they faced challenges to receive the sanitization packages. But at the same time, it helped them to motivate officials to work at the field level. Some of the officials stated that it would be better for them if they received the sanitization package adequately. The officials tried their best to provide the field level officers as much as possible after receiving the package.

5.8 Impact of Mobile Veterinary Clinic

COVID-19 has significantly influenced the farming industry, causing disruptions in farming value chains and widespread food shortages. The dairy and poultry sector can be found in almost every house in rural Bangladesh, and these were in a devastating situation during the epidemic. Due to a lack of quick treatment, many animals died. The Upazila Livestock Hospital has medical facilities, but most farmers are unable to use them due to distance. A considerable part of the economy of this country depends on them, and to help them sustain their farms, the Government took initiatives. Under the seven activities of the CERC-EAP, the Mobile Veterinary Clinic (MVC) was one of them. However, it was targeted to deliver 61 MVC in 61 districts to deliver sophisticated and emergency livestock veterinary services to the doorsteps livestock farmers but due to technical and procurement-

related issues (because of pandemic situation), it was delayed to deliver the services. It was delivered to the people started getting benefits.

The MVC provided veterinary service to tackle the emergency situation of the animals. The supports it provided undoubtedly appreciating to the livestock farmers. In rural areas, the demand of the MVC is gradually being increased. However, it was not possible to serve every corner of the country but farmers who received the service acknowledged its benefits.

Following example showed how farmers are benefiting because of that service.

Moinuddin is a Dairy farmer who lives in Fatikchari, Chattogram. Like the majority of farmers, Moinuddin suffered greatly due to the pandemic. During the first phase of Covid-19, the situation began to spiral out of control. Milk prices plummeted dramatically regularly. The lockdown also compelled residents to remain at home, making it more difficult for Moinuddin to sell milk produced on his farm. It was not easy to maintain a usual way of life. He had to use his savings to pay for his family's expenditures and feed his cows. Moinuddin was given a ten thousand BDT cash reward, which was a big help to him. He spent some of the money on food for his cows and some on family needs.

However, the situation got out of hand for Moinuddin again. Two of his cows got sick, and suddenly, they started to lose weight. At that moment, Moinuddin came to know about the MVC, and he contacted them. The MVC was quick to act and provided necessary treatment to Moinuddin's cows. The MVC reached his house, and after observing the cows closely, they provided medicine and instructions. Soon the cows were gaining weight again, and they were back to being healthy like they were before.

The MVC was a crucial activity undertaken by the Government, creating a huge positive impact on the rural farming sector. The Department of Livestock has hundreds of veterinary doctors and a vast team that provides regular services at the district, Upazila, and field levels. Vaccinations, treatment, and medicines for numerous animal ailments are also provided free of charge by the Government. With the increase demand of the MVC, it is also required to extend the coverage and manpower for ensuring veterinary service at the door steps.

5.9 Contextualizing the Impacts on the Vulnerabilities of Livestock Farmers

Vulnerability is defined as a situation of caused by the disasters. However, in the context of livestock farming, vulnerabilities defined as a status in which farmers have lack of capacities to tackle an emergency situation. In this consideration, the farmers who have lack of capacities in terms of credit, knowledge and social capital considered as vulnerable farmers. Small farmers have less income opportunity. They exposed mostly because of their vulnerable context. However, the Covid pandemic made a crisis whereas small faced huge pressure because of less market access and decrease of production and sale. Under the CERC-EAP small farms (based on the animal number) got the benefits and sustained their production and sale. As a result, the vulnerabilities that they had somehow reduced which is also considered as one of the major achievements of the EAP. Following section contextualized how vulnerabilities of livestock farmers reduced because of the initiatives of the CERC-EAP.

5.9.1 Impact on Small Farmers

Small Farms have less credit and investment in farm management. They are dependent on the regular production sales. However, investment of small farms is not big amount but this investment is very much challenging to continue farming. With the global impact on economic crisis because of the COVID-19, the small livestock farmers from both dairy and poultry sector affected largely. Reports and rumors circulated quickly and widely in the early months of the pandemic. Rumors spread via social and some mainstream media gained public attention was that consumption of milk and poultry caused

COVID-19. As a result, people stopped to consume those products and prices fluctuated with the decreased demand. Small farmers started selling their stock and incurred losses, even shut down their business. Considering this crisis, the CERC-EAP activated started and taken initiatives for compensating the farmers. Awareness program through Television and social media drew an attention to people. As a result, misconception about the dairy and poultry products started eliminating gradually.

On the other hand, Cash incentives through CERC-EAP concentrated small farmers start again their business. After getting the cash incentives, they used to expense on their farm management especially buying fodder. Besides, they managed to repay their loan or debt.

Study findings depicted that it was very much pleasant surprise for them when they received cash in their Bkash or Nagad account. Based on this activities, farmers started thinking positively for their farms. As a result, farm production sustained and the losses that they faced during the lockdown period started reviving. It was found that small dairy farmer's sale increased about 21% after the cash incentives under that program. Moreover, rental vehicle services under the CERC-EAP, made an impact for sale management when farmers confined in their rooms. During that period, this vehicle services made opportunity accessing the market and sale the produced milk and eggs.

Thus, the CERC-EAP has a tremendous positive impacts on sustaining the stock, farm production, sale management, market access. This activities helped livestock farmers reviving and get back to their business. At the same time, it made trust among the beneficiaries and livestock offices. Though it was not possible to help all small farmers but it has brought a change among the beneficiaries those who received the services under the CERC-EAP.

5.9.2 Impact on Female Livestock Farmers

Management activities of poultry and livestock rearing are mostly performed by women. Women's involvement improves socioeconomic conditions by increasing household food security, family nutrition, and employment opportunities, all of which contribute to a more stable lifestyle. Women small holder farmers rely entirely on the informal local markets, with their products rarely reaching markets of the capital city as compared to commercial poultry enterprises. Involvement of women and other vulnerable group in dairy and poultry farming is playing a significant role to create income opportunities.

During the Covid-19 pandemic, a number of destitute women and other vulnerable groups forced to sell and stop livestock farming because of the low demand and price of milk and poultry products. It made a considerable problem to sustain their farms during that period. The CERC-EAP provided support through direct cash incentives to the livestock farmers. This cash incentive created opportunity for them to start and think again about their farm business. About 18.36% (DLS, 2021) beneficiaries (targeted was 25%) were female women farmers who received cash incentive benefits in order to sustain the farm stock and continue business.

In this CERC-EAP evaluation study, about 20% respondents (dairy & poultry) were women who told their story on farm business, challenges during the pandemic situation and how this cash incentive help them to sustain the stock to continue their business. According to them, it was totally unbelievable as they received cash direct to their mobile phone.

The joy they found during that time was really amazing. Everybody confessed that it made a milestone getting money in this way for their farming. Getting money, most of the women bought fodder for cows and poultry in which they could manage their farming. On the other hand, women used this amount in developing new sheds, vaccination and farm management related activities. With the cash incentives, especially poor and vulnerable group tackled the situation occurred by covid -19 very

successfully. Women had the less market access during the Covid-19 pandemic situation. The rental vehicle services from the households' farms made impact to sell their milk and eggs. Following case studies depicted the positive impacts of activities under the CERC-EAP.

However, the beneficiaries showed their happiness and program much appreciated. On the other hand, dairy farmers who had only one cow was not selected as beneficiary. Because of that in rural area, some of the rural and destitute women wouldn't get the benefits. The success story would be more if the selection criteria for male and female farmers considered separately. Apart from that, the female beneficiaries highlighted the CERC-EAP as milestone work in the history of Bangladesh.

West Nanupur, is a small village in Nanupur Union, about 12 km south-east of Fatikchhari Upazila Parishad. Ruma Akter (age 30), being inspired by her husband started her farm in 2013 with only one cow. Her husband advised her, "If you do any other business than cattle farming, you cannot

sell the product even if you want to. But if you have a cow, either it is for meat or for milk it can be sold at a fairly good price at any time".

Her husband was originally an employee of a bank. Later her husband left the bank and both of them started to work in the farm together. By the time of the COVID-19 pandemic, their number of cows stood at a total of seven.

Due to the declining demand and price of milk during the pandemic period, it became difficult to manage her family and farm. At that time, through the local



LSP (Nanupur Union) she got to know about the incentive program by the Government and provided all kinds of supporting information to local LSP, and she was enlisted in C2 category. Within two months of giving the information she got an incentive of around BDT 15,000. Ruma said in this regard, "Suddenly, an amount of BDT 15,000 was provided to me during lockdown, which I do not have to pay back. It is impossible to express in words how a middle-class woman like me has been benefited during the pandemic period! For one and a half month the incentive money worked as a complementary assistance in my family expenses".

The beneficiaries received cash and most of the farmers used for buying fodder. Besides, they repaid loan after getting the cash. This helped them to continue farms and sustained production. Following case of Monwara begum stated how she repaid the loan and continues her business. It is a splendid example of positive result of the cash incentives.

Monowara Parvin Sustained her farm repaying the loan

Monawara Parvin of Kaliganj, Shatkhira is a successful poultry farmer. She has been running her farm for last 12 years. She mentioned that she runs her farm by herself. She does not have any helping hand. She buys baby chickens and raises them for 35-37 days and sells them. Sometimes the batch contains 800 chickens, sometimes 1000 and sometimes 1500 chickens.

Before the Covid-19, she was successfully conducting her business at a full pace but the pandemic changed the whole scenario. The lockdown caused to stay home and because everything was shut down, she was facing huge loss in her business. During that time, she had 2 batches of broiler one

containing 1500 chicken and another one 800 chicken. She used to sell the whole batch but due to Covid, it was impossible to sell the whole batch. She had to sell separately like 20,50, 100 chickens at lower price. The prices were down to 40-60 taka each from 100-110 taka. At that time, another misconception was spreading like wildfire. People were saying that animals also spread Covid virus especially poultry animals. This led to a serious problem in her poultry business. She was slowly getting drowned in debt.



Figure: Monowara Begum

One day she received 16,875 taka B2 category through her bKash account and this was a huge mental and financial support for her. She mentioned that *"This incentive amount might not have been enough compared to the size of my poultry farm but this poultry farm helped to not to take loan from other"*. She was already in debt and the incentive money helped her to repay some of the loans and she used the rest on her chickens. She mentioned that she did not used the money on her family expenses rather used it on repayment of loan and poultry. The government created awareness program and this also helped the people to know that animals do not spread covid-19 virus.



Figure: Broiler Farm of Monwara Begum

Both the cash incentive and the awareness program was truly very beneficial for her and thousands of others farmers like her throughout the whole country.

5.9.3 Impact on Transgender

Small farms were in big trouble, whereas vulnerable group faced challenge to buy fodder, vaccines and farm management because of due to the pandemic situation. Under the CERC-EAP, there were about 17 transgender people (1st tranche) received the cash incentives. Getting the cash, they felt proud and appreciated this program. Following case of a transgender acknowledged how the cash incentives helped people to recover the dairy farm business.

A Third Gender Continues Farming with the Cash Incentives

"The main challenges for me are other people of third gender who do not want to work rather than begging money. I want to be the role model for the people like me so that they can also start doing something in their own". - Sonu Mia

Sonu Mia lives in a rented house in Shyamoli Road in Madan Upazila of Netrokona District. He lives with two more people of third gender. The story of his life is not like other people of third gender.

Sonu Mia had a farm of his own and he was progressing positively until the COVID 19 struck. He had to face loss when COVID 19 pandemic started.

He was enlisted as C1 category and received 10,000 for dairy farming. He stated that "there was no problem in getting the incentive and the incentive was transferred into his account very smoothly". This incentive helped to continue the farming and overcome the challenges during that time. Although the amount of money was not huge but it was huge during the critical time and it gave



him a lot of mental strength. With the incentive and his own he managed to buy a calf and it promotes to continuing farming for a long time. According to hm" Our capital were small but dreams were big," The calf is growing and it is quite a big now. Because of the incentive money Sonu Mia was able continue the farming with passion and positivity.

6. Evaluation of Satisfaction

6.1 Introduction

Satisfaction analysis has been carried out by Likert scale analysis using Taguchi Signal to Noise ratio. The main objective of the module is to assess the satisfaction on different parameters of each activity of CERC-EAP. Here beneficiary perception is generally quantified by Likert rating scale and assessed on the basis of the satisfaction against the activities under the CERC-EAP evaluation study.

6.2 Process of Beneficiary Satisfaction

The PMU of DLS developed a survey form and made module at Kobo toolkit where data was collected and generated the output accordingly. However, the entire data set was used in the Taguchi signal to noise ratio model in identifying the satisfaction of the beneficiary. Apart from that the present evaluation study also collected the overall satisfaction data and information against each activity of the CERC-EAP by using the Likert's five point scale and analyze them to the same Taguchi Signal to noise ratio.

From PMU of DLS, for analyzing satisfaction of the beneficiary, survey of EAP beneficiaries was administered over the telephone from a sample of beneficiaries: i.e. for cash beneficiaries a total of 400*15 categories of farmers (under 5 value chain= dairy, layer, broiler, sonali, and duck) = 6000 sample beneficiary farmers. A computerized systematic random sampling was undertaken across 465 Upazilas; for other items, since the number of beneficiaries is low, it was decided to interview 100% of them. Besides CEGIS's 2037 number of household survey irrespective of different categories taken into consideration for satisfaction. CEGIS's household survey illustrates only overall satisfaction of each category.

The questionnaire survey data were used to summarize *yi* value according to Table 6.1, namely, beneficiary of satisfaction level at *i* had *yi* times of response as shown from the 3rd column to the 8th column as shown in Table 6.1. With *Overall satisfaction from PMU (a)* as an example, y1 = 5, y2 = 7, y3 = 114, y4 = 1369, y5 = 4380. Level 4 and 5 were customer satisfaction level, calculate the satisfaction times of various service quality attribute s *yi* + *yi*5, where *i* = 1, 2, 3, ..., With *Overall satisfaction from PMU (a)* as an example, the satisfaction number of times were y4 + y5 = 1369 + 4380 = 5749. Calculate satisfaction coefficient *psi* by Equation(1 *Overall satisfaction from PMU (a)* satisfaction coefficient *psi* = (y4 + y5)/yt = 5749/6005 = 0.96. similarity, calculate the dissatisfaction times of various service quality attributes *yi* + *yi* = 5 + 7 = 12. According to Equation (1), calculate dissatisfaction coefficient *pdi*, *Overall satisfaction from PMU (a)* dissatisfaction coefficient as pd1 = (y1 + y2)/yt = 12/6005 = 0.020. Use Equations (2) and (3) to calculate S/N ratio, with *Overall satisfaction from PMU (a)* as example, input *pd*1 into Equation (2) to calculate S/N ratio (η d1),

Equation-2 $S/N_{dt} = \eta_{dt} = -10Log\left(\frac{p_{di}}{1 - p_{di}}\right)$	26.98
Equation-3 $S/N_{si} = \eta_{si} = -10Log\left(\frac{1-p_{si}}{p_{si}}\right)$	13.51
Equation - 4 $\eta_{ii} = \eta_{si} + \eta_{di}$	40.5

According to Equation (4), calculate total performance of satisfaction and dissatisfaction of service quality attributes $\eta ti = \eta si + \eta di$, with *Overall satisfaction from PMU (a)* as an example, $\eta t1 = \eta s1 + \eta d1$ = 26.98 + 13.51 = 4.50, as shown in the 9th column of **6.1**.

Higher S/N ratio represented better service quality, sort out quality attributes by S/N ratio ηti as shown in the 13th column of Table **6.1**. R (η) with overall satisfaction from PMU ranking the 5th. Considering the average and standard deviation of quality attributes as well as integrating satisfaction and dissatisfaction information, jointly assessed quality performance.

6.3 Results of beneficiary satisfaction

6.3.1 Overall Results

Here overall satisfaction including each activity under the project presented accordingly. Here most of the data found under excellent and good category. Around 73.9% reported the overall activities as excellent and 23.5% reported as the good category as well. In deep freezer section around 8% are found in moderate category and 2.6% are found in bad and very bad section. This is mostly found due to misconception among the respondents. Among all the category in rental vehicle section 82% respondents reported that it is highest level of number in satisfaction analysis. The following table represents the overall satisfaction disaggregated by each activity, subsequently activity wise satisfaction analysis is presented as well.

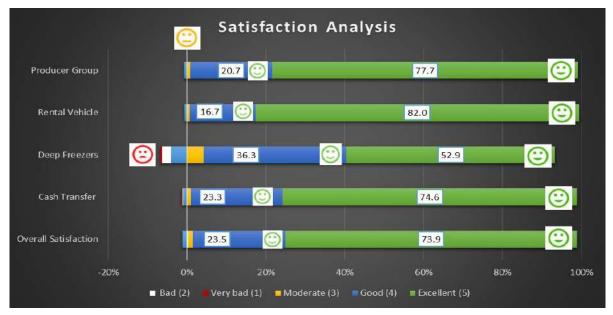
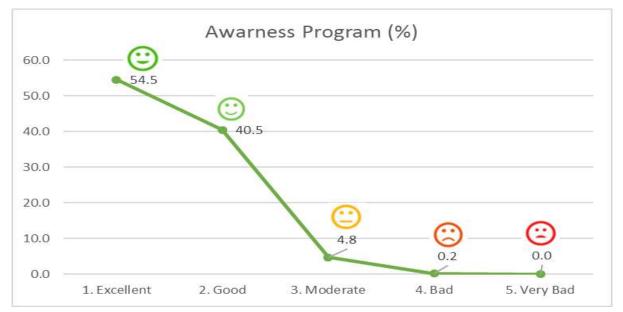


Figure 6.1: Overall Satisfaction for CERC-EAP Evaluation Study

6.4 Activity-wise Results

6.4.1 Awareness Program

The overall satisfaction regarding the awareness program during COVID-19 pandemic period is assessed on the basis of household survey data collected through Kobo tool kit. At the very beginning of pandemic period, people had misconception that COVID-19 virus might transmit through meat (both cattle and poultry) that hit the overall value chain system. In this regard, TVCs through electronic media plays a crucial role to eradicate the misconception which leads to change in food habit. Around 54.5% respondents reported that the awareness program was excellent and



subsequently 40.5% respondents reported this awareness as Good. Both consists 95% of the total, rest 4.8% responded the service is moderate. Responses on *Bad* and *Very Bad* are very negligible.

Figure 6.2: Satisfaction on Awareness Program

6.4.2 Cash Transfer

About 6005 cash beneficiaries were surveyed under different parameters by PMU. In this study, based on the surveyed data the average satisfaction and standard deviation are calculated which is shown in 10th (average Satisfaction) and 11th (SD= Standard Deviation) columns of Table 6.1. The average satisfaction rank of money received on time during crisis was 4.6, and the standard deviation was 0.9. Higher average satisfaction represented better service quality. When standard deviation was used as the benchmark of comparison in case of same averages, the smaller standard deviation represented better quality performance. In the calculation module the non-respond answers were recorded as "Not Applicable" though they are poor in number but these are counted to the total N (6005). The last column of Table 6.1 indicates the ranking of the different parameters by result from average satisfaction (column 10). Here receiving money from cash transfer agent/bank was regarded as the top ranked, on the contrary the parameter (C): *The amount received was adequate* falls in the last rank 9. It is obvious that the grant which was disbursed to the farmers were poor in quantity but still it was beneficial for them at that crucial moment. The milestone decision to disburse the amount though Mobile Banking Financial Institutions (MBFI) like BKASH and NAGAD ranked the 1st as it is hassle-free and user-friendly and beneficiary en-cashed the amount easily; its R (η) value is 1 which indicates this is the most quality output of cash transfer activity. Another sub-indicator (d) Money received helped to continue business ranked 2nd among the sub-indicators though the amount was poor for someone else, however most of them bought fodder and vaccine for their cattle. Satisfaction analysis among 2037 beneficiaries illustrates average satisfaction rate of 4.43 for cash transfer where the standard deviation is 0.85. Table 6.1 subsequently presents the overall satisfaction rates based on the surveyed data of the CERC evaluation study and internal assessment from PMU of DLS.

	Parameters under Cash Transfer	Very bad (1)	Bad (2)	Moderate (3)	Good (4)	Excellent (5)	Not Applicable (6)	ηti	Average Satisfaction	SD	R (S)	R (η)
		y1	y2	y3	y4	y5	у6		Satislaction			
				0	verall Sa	tisfaction						
1	CEGIS' assessment (N=2037)	4	6	115	737	1142	33	33.82	4.43	0.85		
2	Internal assessment by PMU (N=6005)	5	7	114	1369	4380	130	40.5	4.62	0.85		
					Sub-ind	icators						
a)	Money was received timely during crisis	2	1	199	1902	3770	131	45.3	4.51	0.87	3	4
b)	The amount received was adequate	3	30	691	2436	2710	135	30.4	4.23	0.95	9	7
c)	The amount received matched what was expected under the project	1	18	421	2372	3057	135	34.7	4.34	0.92	7	5
d)	Money received helped to continue business	0	13	673	2402	2783	134	34.6	4.26	0.94	8	6
e)	Selection process	1	3	113	1916	3847	125	45.5	4.54	0.84	2	3
f)	How would you rate on receiving money from your cash transfer agent/Bank	1	0	80	1733	4059	132	52.1	4.57	0.85	1	1
g)	Respect for distance	0	0	255	2164	3483	103	N/A	4.47	0.82	4	N/A
h)	Respect for Wearing of mask	0	2	358	2125	3419	101	45.6	4.44	0.84	6	2
i)	Clarity of information on COVID19 requirements for beneficiaries under the project	0	0	207	2251	3441	106	N/A	4.47	0.82	5	N/A

Table 6.1: Taguchi S/N Ratio for Cash Transfer Activity under CERC-EAP

Here N/A accounts for functional error negative logarithm calculation

6.4.3 Rental Vehicle

Higher level of satisfaction is found among the rental vehicles providers. Satisfaction rate for this service was found "excellent" to all female vehicles providers (100%) while it is 82% to the male rental vehicles providers. In this case, the Taguchi Signal to Noise Ratio model is also used for satisfaction assessment. Here, the total performance of satisfaction and dissatisfaction of service quality attributes $\eta ti = \eta si + \eta di results$ N/A which indicates functional error for negative logarithm calculation. However, overall satisfaction with rental vehicle accounts for rank 1 where the standard deviation is 0.42. The household survey 2022 illustrates that this service was provided in the month of Ramadan during COVID-19 pandemic period 2020. Although the period was very short but some producers were able to sell their product during the pandemic period 2020. The household survey 2022 illustrates that 64 households availed the rental vehicle facilities; 82.15% of those households reported that they were happy (excellent) having the rental vehicle support of DLS and their satisfaction rate according to Taguchi Signal to Noise Ratio is 4.78.

	Parameters under Rental Vehicle	Very bad (1)	Bad (2)	Moderate (3)	Good (4)	Excellent (5)	Not Applicable (6)	ηti	Average Satisfaction	SD	R (S)
		y1	y2	y3	y4	y5	уб		Satisfaction		
				Overall S	Satisfact	ion					
1	Household survey 2022 assessment (N=64)	0	0	2	10	52	0	N/A	4.78	0.49	
2	Internal assessment by PMU (N=406)	0	0	5	68	333	0	N/A	4.81	0.42	
				Sub-in	dicator	S					
а	Accessibility to DLS	0	0	4	122	280	0	N/A	4.68	0.49	1
b	Timeliness of getting rent	0	0	13	114	279	0	N/A	4.66	0.54	2
С	Amount of rent	0	0	22	152	232	0	N/A	4.52	0.60	5
d	Period for rent	0	0	21	175	210	0	N/A	4.47	0.59	6
е	Respect for distance	0	0	21	123	262	0	N/A	4.59	0.59	3
f	Respect for wearing of mask	0	0	23	125	258	0	N/A	4.58	0.60	4
g	Clarity of information on COVID-19 requirements for beneficiaries under the project	0	0	0	13	135	257	N/A	1.79	0.60	7

Table 6.2: Taguchi S/N ratio for rental vehicle activity under CERC-EAP

Here N/A accounts for functional error negative logarithm calculation

6.4.4 Producer Group

A total 1500 Milk Cream Separator Machines (MCSM) with a capacity ranging from 50-500 liter per hour (lph) were distributed in order to separate the cream from the fresh milk, and to facilitate processing the milk cream (30% fat) into ghee (99.9% fat) or butter (85% fat) based on the capacity and activity of the producer groups.

Sl No	Capacity	No. of Milk Cream Separator	Beneficiary Type
1	Capacity 350-500 lph	400	Milk Collection Centers
2	Capacity 150-200 lph	500	Large Farms
3	Capacity 50-100 lph	600	Medium Farms

 Table 6.3: Distribution of Milk Cream Separators

Producer group includes a number of people who are engaged in producing dairy products. The milk cream separator machines with different ranges of capacity were delivered to each group of people based on their daily production capacity. The overall satisfaction against this activity is 4.8. Here, signal to noise ratio (S/N) found error for many parameters due to functional error of negative logarithm; these are indicated as N/A. Thus, on average similar satisfaction rate is found against "*respect for distance"* and "*wearing of mask";* lower standard deviation indicates the better service quality of the attributes.

Parameters under	Very bad (1)	Bad (2)	Moderate (3)	Good (4)	Excellent (5)	Not Applicable (6)	ηti	Average	SD	R (S)
Producer Group	y1	y2	y3	y4	y5	у6	ηι	Satisfaction	30	к (з)
Overall satisfaction (N=948)	0	0	15	196	735	2	N/A	4.8	0.5	
Wait time to have access to service	0	0	43	348	557	0	N/A	4.5	0.6	6
Timeliness of delivery	0	0	28	320	600	0	N/A	4.6	0.5	4
Quality of transport	0	0	37	357	554	0	N/A	4.5	0.6	5
Volume allowed to transport	0	1	50	350	546	1	42.37	4.5	0.6	7
Respect for distance	0	1	29	289	629	0	45.06	4.6	0.5	1
Wearing of mask	0	0	38	296	614	0	N/A	4.6	0.6	3
Clarity of information on COVID-19 requirements for beneficiaries under the project	0	0	21	312	615	0	N/A	4.6	0.5	2

 Table 6.4: Taguchi S/N ratio for Producer Group Activity under CERC-EAP

6.5 Deep Freezers

Around 530 deep freezers were distributed to the upazila and district level DLS offices and other relevant offices for vaccine preservation. In this respect, 515 ULOs and DLOs were interviewed from PMU's end. DLOs and ULOs informed that deep freezers were not as per their expectation for this project. Actually, they expected vaccine refrigerator including deep freezer where temperature can be controlled for vaccines. However, overall satisfaction rate against this service stands at 4.3 on average where the standard deviation is 0.9. Here, signal to noise ratio (S/N) is found error for many parameters due to functional error of negative logarithm; these are indicated as N/A. Furthermore, a ranking was made based on the different parameters of deep freezers services. Quality of the freezers stands for 3rd position whose average satisfaction rate is 4.40. Facility of usage of freezer stands for the last position among all the parameters as it was anticipated that whether they were confused whether they can use this or not. The following Table 6.5 represents the total signal to noise ratio for deep freezer services.

Parameters under Deep	Very bad (1)	Bad (2)	Moderate (3)	Good (4)	Excellent (5)	Not Applicable (6)	ηti	Average	SD	R (S)	R (ŋ)
Freezers (N=515)	y1	y2	y3	y4	y5	уб	ηα	Satisfaction	30	K (3)	K (IJ)
Overall satisfaction	2	11	42	184	268	8	24.4	4.32	0.93		
Timeliness of delivery of the freezer	0	0	29	229	252	5	N/A	4.39	0.74	4	N/A
Quality of the freezer (freezing power)	0	0	12	242	252	9	N/A	4.40	0.80	3	N/A
Storage capacity of freezer	0	0	24	262	219	10	N/A	4.30	0.83	6	N/A
Volume allowed to store	0	1	26	292	183	13	37.9	4.20	0.88	7	1
Facility of usage of freezer	2	11	68	265	157	12	22.4	4.03	0.97	10	6
The freezer capacity matched with the expectation	0	8	37	270	190	10	27.2	4.19	0.88	8	5
Instruction on the usage of the equipment	0	3	39	298	167	8	32.0	4.17	0.80	9	4
Respect for distance	0	3	26	161	321	4	34.0	4.53	0.74	1	3
Respect for wearing of mask	0	1	41	169	300	4	37.2	4.47	0.76	2	2
Clarity of information on COVID- 19 requirements for beneficiaries under the project	0	0	31	269	211	4		4.32	0.70	5	N/A

Table 6.5: Taguchi S/N ratio for Deep Freezers activity under CERC-EAP

Here N/A accounts for functional error negative logarithm calculation

6.6 Satisfaction from FGD Findings

CEGIS team has conducted 82 numbers of FGDs with different groups who are involved in dairy farming, poultry farming, female headed households and LSPs. These FGDs were conducted in different upazilas of project area. However apart from all the components of study area, CEGIS team has collected satisfaction status of FGD respondents on different components/activity of the study. Here some of the activity were not found till the field operation thus satisfaction status of this activity was not assessed on that stage, for example rental vehicle and milk cream separator services were not available to the entire project area, but cash transfer and awareness program were common through the entire project area, thus the activity status of satisfaction were collected accordingly and analyzed through the above mentioned Taguchi Signal to Noise Ratio (S/N ratio model). Therefore, overall satisfaction was found 4.66 in a likert scale of 5 while the standard deviation was found 0.51. Standard deviation is used for comparison of same satisfaction result but here overall satisfaction result is triggered without comparison value, thus smaller standard deviation represented better quality performance. It is to be mentioned that cash transfer was treated was the main supportive tool to beneficiaries while other services were treated as the additional support services during the pandemic. Furthermore, it is certainly assumed that satisfaction of the project activity seems fruitful achieving the target of the project.

7. Evaluation of the Achievements

7.1 Introduction

Evaluation is the systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results. The goal of the evaluation is to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability. The evaluation provides information that is credible and useful, enabling the incorporation of lessons learned into the decision making process of both recipients and implementing agencies. The Contingency Emergency Response component (CERC) Emergency Action Plan (EAP) had seven (7) activities. The overall goal of those activities were to compensate dairy and poultry farmers sustaining their business during the period of Covid-19 pandemic. Regarding the target objectives, this section analyzed the overall performance of the CERC-EAP following the OECD guidelines.

7.2 Defining the Evaluation Criteria

The definitions and questions under each criteria mentioned in the following table 7.1

Criteria	Questions/Indicators
<u>RELEVANCE</u> The extent to which the project activity is suited to the priorities with the target group	 In evaluating the relevance of the CERC-EAP following questions: a) Are the activities and outputs of the activities consistent with the overall goal and the attainment of its objectives? b) Are the activities and outputs of the CERC-EAP consistent with the intended impacts and effects?
EFFECTIVENESS A measure of the extent to which an aid activity attains its objectives.	 In evaluating the effectiveness of the activities following questions considered: a) To what extent were the objectives achieved/are likely to be achieved? b) What were the major factors influencing the achievement or non-achievement of the objectives?
EFFICIENCY Efficiency measured the outputs (qualitative and quantitative) in relation to the inputs	Evaluating the efficiency of the CERC_EAP, following questions considered for evaluating the efficiency of the project interventions:a) Were activities cost-efficient?b) Were objectives achieved on time?c) Was the project implemented in the most efficient way compared to alternatives?
IMPACT The positive and negative changes produced by the project activities directly or indirectly, intended or unintended.	Following questions were set for evaluating the impactsa) What has happened as a result of the project and why?b) What real difference has the activities made to the beneficiaries?
SUSTAINABILITY Sustainability is concerned with measuring whether the benefits of an activity are likely	Evaluating the sustainability following questions considered:a) To what extent did the benefits of the project continue after funding ceased?

Criteria		Questions/Indicators
to continue after the withdrawn of funding;	b)	What were the major factors influenced the
Projects need to be environmentally as well		achievement or non-achievement of sustainability of the
as financially sustainable.		project?

7.3 Performance of the CERC-EAP

Following table 7.2 shows the performance of the CERC-EAP according to the findings of the evaluation study. The performance shown according to the 1-5 scores whereas 1 is defined as **'Insignificant'**, 2 as **'Low'**, 3 as **'Moderate'**, 4 as **'High'** and 5 as **'Very High'**. It is found that awareness program achieved the score 5 which is denoted as the 'Very High' performed activity. On the other hand, the cash transfer and rental vehicle services scored 4.6 that indicated 'High' performance according to the evaluation result. Besides, MCSM scored as 4.6 (High) followed by the performance of the sanitization package 4.2 (High). Moreover, most of the activities performed well rather than the distribution of deep freezer and Mobile Veterinary Clinic (MVC). Because of the low satisfaction of DLS officials on deep freezer and delayed distribution of MVCs, the performance of these activities became low. However, the score for the Deep freezer and MVC were 2.6 which denoted 'Insignificant' according to the result based on the evaluation criteria. Finally, the overall rating (average) of the CERC-EAP is measured as 4. It indicates that the performance CERC-EAP is 'High' in terms of relevance, effectiveness, efficiency, impacts and sustainability of all activities.

Activities/ components	Relevance	Effectiveness	Efficiency	Impacts	Sustainability	Overall performance
Act-1: COVID-19 related messages broadcasting	5	5	5	5	5	5.0
Act-2: Sanitization package	5	4	3	5	4	4.2
Act-3: Mobile Veterinary Clinics (MVCs)	5	2	2	2	2	2.6
Act-4: Cash transfer	5	5	4	5	4	4.6
Act-5: MCSM	5	5	4	4	4	4.4
Act-6: freezers	5	3	2	2	1	2.6
Act-7: Rental vehicle services	5	5	4	5	4	4.6
Overall Rating (average)	5.0	4.1	3.4	4.0	3.4	4.0

Table 7.2: Overall Results of Performance Evaluation

Note: Score 1 is defined as 'Insignificant', 2 as 'Low', 3 as 'Moderate', 4 as 'High' and 5 as 'Very High'.

8. Lessons Learned and Recommendations

8.1 Lessons Learned from the CERC-EAP

The CERC-EAP implemented to compensate and sustain the dairy and poultry farmers combating a Covid-19 pandemic situation. Seven activities done under the CERC-EAP. Regarding all aspects of these activities, DLS faced various challenges to implement the activities considering the situation occurred at that time. However, in conducting all other activities, DLS learned different things and solved many problems to tackle the emergency situation. The experience what they have till now, it should be showcase, definitely can be utilized other projects. In this study, different methods followed to pick-up information related to their experience. Based on the findings, the lessons learned throughout the CERC-EAP are described in this section. In addition, recommendations provided as way forward according to the gaps explored in this study.

The lessons learned on basis of the study findings are mentioned briefly below:

- a) At the beginning of COVID-19, people were panicked due to uncertainty of situation. Rumours relating to the milk, meat and eggs consumption reduced market demand of livestock products. Messages through print, electronic and social media helped people to come out of the dark and improved demand situation. The messages were on time and acceptable to consumers. The lessons learned from this activity are that vested interest groups become active with rumours during crisis and timely measures are important to reduce the crisis.
- b) In beneficiary selection process, it was very difficult to select thousands of farms within a very short period during covid-19 outbreak in particular. Though KoBo tool box used and information collection by the LSP was tough. Therefore, there were some deviations and gaps in the collected data. However, lessons learned from this phenomenon were that there were some institutional weaknesses in livestock development initiative. Nationwide livestock information service and central updated database was required which would have helped to avoid this problem. The selection criterion (based on nos. of cows) was not realistic to compensate the vulnerable women farmers. However, in rural area, women with single cattle were found but they did not get the cash incentives because of the discrepancy in fulfilling the eligibility criteria designated for dairy farm. It was a lesson to reduce the number of cattle to find the poor and vulnerable women as beneficiaries.
- c) Scope of malpractice by the staff and undue pressure from local elites to include underqualified farms in 2nd slot of cash transfer was found during evaluation. Therefore, lesson is that the cash transfer/disbursement should be completed in a single slot to tackle an emergency situation.
- d) Loss incurred by the livestock farmers derived from reduced facilities of marketing of the farm produces. Vehicle rental support by the government and the collective efforts or participatory approach of farmers during this crisis minimized the losses. The lesson is that a well-defined organization of common interest group has no alternative but to approach the crisis collectively where, government role is to suggest and/or initiate only.
- e) Communication and interactions within the farmers, stakeholders and DLS officials were found weak during the HH survey. This indicated very poor extension activities at grass root level. The livestock development initiative is lacking of livestock extension services. Adequate man-power, transport and other extension inputs are required for the effective extension services so that they can visit farmers and other stakeholders routinely with

extension materials. Lesson from the findings is that existing extension services are not enough for future sustainable development initiative for livestock production and marketing of produces.

- f) During the outbreak of Covid-19, farmers were unable to sell their products (eggs, meat, milk etc.) due to lock down situation. On the other hand, a rumours spread across the country that the virus transmits through domestic animals and animal protein like eggs, milk and meat. Repeated telecast of TVC monologues; talk show largely impacted across the country and restored the livestock and livestock product market. The lesson learned from this activity is that promotional activities required for DLS to make strong relationship among beneficiaries and other stakeholders.
- g) During cash transfer, many women farmers were found not having mobile money account but produced the number of their husband or son. This may confuse to identify the actual recipient of the support. Therefore, lesson learned is that careful cross checking of NID, mobile account number is important to avoid personification problems in case of cash transfer.
- h) For tackling an outbreak situation people need money. At the very beginning of the CERC-EAP, there was a confusion whether the compensation package would be in cash or kinds. As compensation, cash transfer was the good decision and also a good lesson for emergency type activities that cash transfer through mobile banking would be the best idea for getting instant result and avoiding different social issues.
- i) In the case of distribution of Milk Cream Separator Machine, it was found that most of the dairy farmers were interested in value addition or product diversification activities but had lack of technical know-how. This activity is helpful to initiate product diversification activity but training and demonstration on time, quality certification, levelling, marketing, etc. are inevitable part to make the activity successful. Organizing training and other necessities are a long run process. Therefore, inclusion of this activity in CERC-EAP is questionable. Therefore, lesson learned from this activity is that an organized body like Livestock Farmers' Field School (LFFS) and regular visit of DLS field officials with experts for training and demonstration would help to make the activity effective.
- j) The deep freezers with a capacity of 300-500 liter under EAP are in use. But, during the satisfaction survey ULOs and DLOs opined that the deep freezers did not match with the emergency support of the EAP. They preferred vaccine refrigerators instead of deep freezers. However, idea for distribution of deep freezer derived from the necessity of preserving unsold milk of the farms during crisis period to protect the farmers from throwing milk onto the roads (as happened in many places during lock-down situation). This mismatching of ideas should be resolved through proper instructions. Therefore, an immediate initiative is necessary to provide the DLS offices with the amenities they required to provide smooth services to the farmers.
- k) Distribution of MVCs taken a long time encountering both WB and Government procurement regulations including complain from suppliers' end. Therefore, lesson is that this item should not be considered as an emergency activity.
- High level satisfaction of women beneficiaries on rental vehicle support indicates that social communication and marketing of farm produces were a serious problem to the women entrepreneurs. Therefore, lesson learned is that there are social and cultural barrier in social communication and marketing of farm products of women

entrepreneurs. In this regard, special initiatives from DLS would create more women entrepreneurs in this field.

8.2 Recommendations

Implementation of CERC-EAP has made a history to compensate dairy and poultry farmers for tackling the emergency situation during the period of Covid 19. It was very challenging to implement all activities because of lack of experience (as CERC-EAP is first time in Bangladesh) and pandemic situation whereas various activities were restricted. However, the Department of Livestock Services completed the CERC-EAP successfully overcoming the difficulties. During the planning to implementation, various experience and lessons learned, even also some gaps. However, it was tough job for DLS, the experience and lessons learned through this project provide some recommendations. During the phase of this study, a number of recommendations came from the beneficiaries as well as DLS officials. In additions, the study team provided some recommendations based on the results of CERC-EAP evaluations. Following section described a set of recommendations, objectives, implementation plan which would be very useful for the LDDP and future prospects of the Department of Livestock Services (DLS) and other stakeholders.

SL. 1	Development of Communication plan
Objectives	To have a correct and updated information of farms and to create a bonding among farmers and DLS officials.
Description	Lack of communication among the DLS offices, Farmers and LSPs has been observed during evaluation of the activities of CERC-EAP. The gaps in information have been reflected in beneficiaries' selection process. However, a well-developed communication system could have helped to avoid these lacking. Development of communication is also necessary for awareness building, motivational programme on livestock production, value chain development, nutritional issues, market promotional activities etc. A well communication system through mass media (electronic, print & social media) can enhance the production, products diversification, product marketing, etc. It can also play an important role in technology diffusion process.
Implementation plan	 Deciding media: In selecting media, the more acceptable and effective media to be decided. The evaluation finding indicated that all the media are effective but electronic media is popular to all categories of people. Deciding the messages: The messages necessary and relating to the technology for enhancement of production, vale addition, marketing, etc. to be decided by the extension officials. Contacting media: It is necessary to select the electronic and printed media to delegate the messages to and from the farmers. The well accepted TV channels, and well circulated newspapers may be contacted to circulate the messages on regular basis. Motivational programme for new technology: It is difficult to have technology diffusion effectively. So, popular media can be helpful for this purpose. Market promotional programme: All media can be utilized for market promotional activities. Social media is one of the best performers in these regard. Information to all stakeholders: Right to information should be practices through a nationwide information service system which will provide updated information to the DLS to take appropriate measures needs to be providers. Message through Monologue, dialogue, talk-show, etc. are popular programme through TV channels. So, can be arranged on important issues of livestock and poultry from time to time.
	• Through Banner, Festoon, Bill-board, poster, etc.: These will encourage producers and consumers. So important for market promotional purposes.

SL. 1	Development of Communication plan
	• Through the Newspaper, Magazines, bulletins, etc.: Private sector entrepreneurs should be encouraged to utilize these media to represent their products with their
	nutritional values, quality assurance, etc.

SL. 2	MVCs for all upazila across the country through LDDP
Objectives	To facilitate emergency veterinary services at union/village level.
Description	Evaluation process of activities of CERC-EAP reflected that, The veterinary services like all other services were limited during covid-19 and under lockdown situation. Upazila veterinary hospital was the only source of these services to the farmers. Mobile Veterinary Clinics (MVCs) will enable to reach these services at village level and encouraging to the livestock rearer. All upazila should be provided with the MVCs because, union level veterinary clinic services are not yet facilitated. In fact, these veterinary clinics services (MVCs) will reach at the door steps of the farmers at village level. Besides, it is very difficult for a farmer to carry diseased or injured animals to the Veterinary hospital at Upazila. There are also risks of diseases transmission during movement of diseased animals. Therefore, it is a long cherished desire of farmers to have a second option of this service at their reach.
Implementation plan	 Priority should be decided on the basis of cattle population and remoteness of the upazila. Establishment of Nationwide Information Service and database may help in prioritizing the support. Visit as per routine schedule will need to be ensured. However, a provision of emergency call for this service may also be arranged. Punctuality should be maintained. MVCs should be well equipped with necessary instruments. One orthodox veterinarians need to provide the services.

SL. 3	Establishment of Nationwide Livestock Information Service (NLIS) with a well- managed updated database.
Objectives	To get correct information of the farms and to detect actual beneficiaries as well as for nationwide coverage of Animal Health Information System and other services.
Description	This information services and database will provide correct information and real situation of the farms. It will help to take decision for emergency support to Livestock farmers. During evaluation process of the activities of CERC-EAP, it was found that there are many livestock dependent vulnerable families across the country who were severely affected due to collapse of livestock sector in the wake of covid-19. The database could maintain their information to enable providing support in a separate deal. The NLIS will play an important role to combat challenges of livestock sector as a whole providing updated information required for re-structuring service system, the markets of livestock and poultry products, and many other beneficial initiatives. It is also necessary to have online based real-time reporting system for epidemiological purposes so that necessary measures can be taken to identify the causes of the disease and to control at the outset of the incidences. This will help nationwide coverage of Bangladesh Animal Health Information System (BAHIS). NLIS is also necessary for other services to enhance production and establishment of organized milk collection and marketing system.
Implementation:	 LDDP can support to establish BAHIS as well as NIS for enhancement of livestock production, Value chain development, and product marketing issues. A set of manpower should be trained (in country and abroad) on database management

SL. 3	Establishment of Nationwide Livestock Information Service (NLIS) with a well- managed updated database.	
	 A stable and organized milk collection and marketing system across the country as an intervention of LDDP should be initiated. Data base should include livestock dependent vulnerable women and vulnerable 	
	 but base should mende investoric dependent vumerable women and vumerable families to provide necessary support. With the establishment of the central and updated database, it is also required to develop a mechanism for ensuring insurance coverage of dairy animals. 	

SL. 4	Establishment of a well-organized 'Livestock Farmers' Field School' (LFFS)
Objectives	To organize livestock farmers for training and technology diffusion and to interact among themselves to overcome crisis.
Description	Farmer Field Schools (FFS) provide farmers with an opportunity to innovate new technologies which help them to make decisions that eventually lead to increased production and income. The evaluation of CERC-EAP reveals that in the field level farmers are not organized to provide collective efforts to overcome the Covid-19 crisis. Livestock Farmers Field school is an organized group of farmers at community level. Therefore, formation of LFFS is important to interact themselves and also to facilitate receiving technology from the experts. This is necessary for non- formal education to give the farmer hands-on training on better methods of farming and enable the farmers to move forward side by side with changing situation and to overcome the challenges collectively. LFFS will act as the focal point of Livestock extension service which has been found lacking during evaluation process of CERC-EAP activities. Technology diffusion is utmost necessary to have a climate smart livestock management system. The LFFS can help in this regards.
Implementation	• A database should be prepared for livestock farms across the country.
plan	Each LFFS to be formed covering 1 or 2 villages
	 All categories of livestock farmers to be enrolled first. The farmers hands- on training should be arranged category wise.
	• Frequency of sitting of the farmers will be decided by them.

SL. 5	Strengthening of Livestock Extension Services.
Objectives	 i. To know the problems of farmers at field level and to provide solution by the experts. ii. To increase coordination between DLS and Bangladesh Livestock Research Institute (BLRI)
Description	The evaluation process of CERC-EAP has reflected the weakness in extension services and communication gap between the farmers and extension services of DLS. Laps and gaps in the selection process of beneficiaries have been derived from the lack of communication between farmers and the DLS officials. A strong Extension service is necessary to collect information from the farmer's level about their problems. The operational training on Milk Cream separator would help the farmers to minimize the losses derived from the Covid-19 crisis through product diversification initiative. A strong extension service could facilitate the training of farmers to diversify the perishable milk in to other long preserving dairy products through Milk cream separator and through other means. At present there are very little coordination among the extension services of DLS and the BLRI. This is because of the weak extension service structure of DLS and poor inputs and mechanism of extension services of DLS.

SL. 5	Strengthening of Livestock Extension Services.
Implementation	• Re structuring the Extension services of DLS is required.
plan	Deciding the extension mechanism of livestock services.
Providing and facilitating extension inputs.	
	• Deciding the innovative technologies require to adopt for dealing with climate
	change realities.
	• Identification of innovative ideas in production, value addition, quality assurance
	and marketing.
	• Deciding mechanism and sectors of cooperation between DLS and BLRI.

SL. 6	Capacity Building Training Programs
Objectives	 To have the skilled manpower on Database management and maintaining the Nationwide Livestock Information Services. To develop skilled extension officials for climate smart livestock production system.
Description	The existing work forces of DLS at upazila level had to face a lot of difficulties in implementation of the CERC-EAP activities due to risk of covid-19 transmission and lack of experience to manage the unwanted situation derived from the measures to control the disease. Such emergency situation may occur from the man-made or natural calamities due to climate change realities. Therefore, capacity building of work forces of DLS is important. A well trained work force can handle the crisis effectively and efficiently. Besides, adopting climate smart livestock production system is worldwide concern. Therefore, new technology and innovative ideas in livestock and poultry production system are of dire necessity. Innovation of new technology is important to cope with the Climate change consequences. Therefore, Capacity building training of manpower on emergency situation is helpful to combat the crisis.
Implementation plan	 Officials as well as the farmers are required to be selected for capacity building Training. A well thought training manual is to be formulated for each category of participants. Selection of appropriate trainer or resource person is required. Budgetary provision for conducting training is important Hand-on training is to be conducted Climate smart production system to be reflected in technology selection. Practical demonstration will be required to make the programme effective.

SL. 7	Technology diffusion to the farmers on production, product diversification, marketing, etc.	
Objectives	To enrich the farmers with new technology and knowledge	
Description	The farmers are lacking knowledge on product diversification which is found during evaluation of activities of CERC-EAP. It was found that most dairy farmers were interested in value addition or product diversification activities but lacking of technical know-how. The knowledge on technology of product diversification could minimize their losses during lock-down situation of Covid-19 measures. Training and demonstration, quality certification, leveling, marketing, etc. are inevitable part of marketing livestock products. Technology diffusion training could facilitate the farmers to diversify the perishable milk in to other long preserving dairy products. Therefore,	

SL. 7	Technology diffusion to the farmers on production, product diversification, marketing, etc.
	technology diffusion for increasing production and value addition process of livestock products is necessary.
Implementation plan	 Need assessment: it is necessary to identity the necessity of the farmers as well as the consumers of livestock products. Selection of technology: Technology necessary to incorporate to the farmers for increasing production to be settled as per need of the farmers. A strategy to be settled for technology diffusion. Expertise hiring: Required experts to be hired from the domestic or expatriate sources for ToT purposes. Establishment of LFFS will be required for farmer hands-on training. Extension work force will arrange the training. Required inputs and budgetary provision is necessary.
	• Technology on climate smart Production system, Value addition and quality assurance is important aspects of technology diffusion training.

SL. 8	Knowledge on Environmental Management
Objectives	 To protect the environment from degradation due to livestock production, processing, and transportation activities. To ensure climate smart livestock production system.
Description	The evaluation process of CERE-EAP has identified the lacking of extension services at farmers level and lack of communication between farmers and DLS officials. Livestock production and processing are the potential source of pollutant that may cause environmental hazard. Farmers are lacking knowledge on climate smart production system. This lacking is due to poor extension work at farmers' level. The government of Bangladesh has emphasized the necessity of environmental protection for any developmental activities. Therefore, environmental management is utmost necessary for getting a climate smart production system.
Implementation plan	 Training of DLS officers and staff on climate smart production system is required A training manual to be formulated on climate smart production system on livestock production system. Initiative to enforce provisions of the in National Livestock Development Policy 2007, Animal Slaughter act 2011, National Environment policy 2013 and Food safety Regulation 2017 at root level is necessary. Before enforcement, the farmers should be informed the provision through arranging training on climate smart production system. Budgetary provision of training is required. Processing of meat and milk should strictly follow the provision of national legislation.

SL. 9	Need assessment of the field level offices is required for Strengthening the Capabilities
Objectives	To facilitate smooth livestock service delivery to the farmers.
Description	Assessment of input need at upazila level offices is required for rendering smooth and proper services to the farmers. During the process of evaluation of CERC-EAP activity, ULOs and DLOs have consented that they would have preferred vaccine refrigerators instead of deep freezers. However, idea for distribution of deep freezer derived from the necessity of preserving unsold milk of the farms during crisis period to protect the

SL. 9	Need assessment of the field level offices is required for Strengthening the Capabilities	
	farmers from throwing milk onto the roads (as happened in many places during lock- down situation and even have experienced during political unrest in the past). Therefore need assessment is necessary for better performances. Poor extension services at upazila level offices is due to lack of extension and training materials which indicate the poor condition of extension services of DLS.	
Implementation plan	 A well planned extension manual is to be formulated. A well complied training manual is to be formulated. Transport facilities with training and extension material for extension services are required at least at district level offices. Adequate budgetary provision for upazila level offices for conducting training is required. Farmers' field school system training arrangement is necessary. Updated database of farms to be facilitated at upazila level. Resource persons to be well trained on extension activities. 	

SL. 10	Developing a Stable and organized Milk Collection and Marketing System across the Country.
Objectives	 To encourage milk production in the country and to reduce the import of milk powder. To make the country self-sufficient in milk and to ensure easy marketing at a reasonable price of milk.
	To encourage women in keeping dairy cattle.
Description	Milk marketing was seriously affected by Covid-19 measures in the country. Milk is a perishable product and starts deteriorating soon after milking. Therefore, farmers cannot delay to sell it. Milk price is unstable so the farmers do not get ideal price of milk. The invasions of different companies in milk marketing system sometime manipulate the market and purchase milk at a low price. Farmers are compelled to sell milk to them because of its perishable nature. Therefore it is necessary to ensure marketing of milk at a reasonably fixed price so that the farmers are benefited. It is also necessary to create a competitive market so that a perfect competition exists in milk marketing system for producers' benefit.
Implementation	• Training of man power: selection / recruiting of milk collector and arranging
plan	their training
	• Facilitating the producer's organizations (POs) with customized transport
	• Establishing the milk collection centers with necessary equipment and utensils.
	Establishing the Milk Chilling Centers.
	• Establishing milk processing plant for pasteurization and supporting the POs with product diversification technologies.

Appendices

Appendix I: Data Collection Tools and Instruments

Questionnaires for Household Survey

Household Survey Questionnaire for Beneficiaries on CERC-EAP Evaluation

A. General Information (সাধারণ তথ্য: (সকলের জন্য))

Phone Number মোৰাইল নম্বর			•
Division			*
বিভাগ () Barishal	Chattogram	O Dhaka	
Khulna	O Mymensingh	Rajshahi	
O Rangpur District	O Sylhet		
জেলা			
Upazila উপজেলা			
Union ইউনিয়ন			

Select GPS (<15m) বিপিৎস নির্বাচন করুন (<15 মি) 23.774598 90.421954 0 2361.)	353059152118		
latitude (x.y °)	the second s	ATING 11 ST 11	
23.774598	2 June	Assam	Nagala
longitude (x.y °)	Bihar	Meghalaya-	- te
90.421954	the second of the		lanipur /
altitude (m)	- And a start of the start of t	The state of the s	4/
accuracy (m)	West Benga		A Ki
2361.353059152118	-	Ration And And And And And And And And And An	
Age बग्रम			*
Gender নিৰ্			*
1. Male	2. Female	3. Transgender	20
Marital Status			6
দ্বৈৰাহিক অবহা 1. Married	O 2. Unmarried	3. Widow	
4. Divorced	2653		

Religion धर्स		3
1. Islam		
2. Hinduism		
3. Christian		
4. Buddhist		
5. Other (Please specify)		
0		
Please specify other religion		
উল্লেখ করুন		
Education শিক্ষা		
1. Primary		
2. Secondary		
3. Higher Secondary		
4. Graduate		
5. Post Graduate		
6. Higher Studies		
 7. Literate (only can write) 		
8. Literate (only can read)		
9. Literate (read & Write both)		
10. Illiterate		
O 10. miterate		
Profession		
পেশা	2. Dairy Farming	3. Poultry
4. Business	5. Agriculture	6. Other (Please specify)
Please Specify other Profession উল্লেখ করুন		

Monthly Savings: NaN Taka ধানার মাসিক সঞ্চয়	
Monthly HH Expenditure (Taka) ধানার মাসিক খরচ (টাকা)	
Monthly Total Income in Taka: 0 Tal ধানার মাসিক মোট আয় টোকায় <i>)</i>	xa
Monthly Income of Member 6 0	
Monthly Income of Member 5 0	
Monthly Income of Member 4 0	
Monthly Income of Member 3 0	
Monthly Income of Member 2 0	
Monthly Income of Member 1 0	
Earning Members (Nos) উপাৰ্জনক্ষম থানা সদস্য সংখ্যা	
1. Dairy 2. Poultry	
Type of Farming/ Business ধামার/ব্যবসার ধরণ	

CC	ড-১৯ সম্পৰ্কিত হৃধ, ডিম ও মাংস বিষয়ক সংবাদ প্ৰচাৱণা তনেছেন কি?) Yes) No
	f Yes, through which media? দে কোন মাখনে 1. TV 2. Radio 3. Newspapers 4. Social Media 5. Others (please specify)
	ase specify the other media ध कक्रन
C C	আপনাৰ ব্যবসার উপকার হয়েছে কি?) Yes) No Did this awareness help you to know that animals and birds do not transmit the Covid 19? নিশিত পশু-পাথী কভিড-১৯ রোগটির বাহক নয় এটা জানার জন্য সচেতনতা মূলক বার্তা প্রচারে আপনার উপকার হয়েছে কি?) Yes) No
	Did this awareness inform you that Covid-19 virus spread human to human contact? ড-১৯ রোপের ছাইরাস মানুষ থেকে মানুবে ছড়ার এ বিষরটি সচেতনতা মূলক বার্তা প্রচারের মাধ্যমে জানতে পেরেছেন কি?) Yes) No
mil	id the awareness program help you to know that protein intake from animal source food (meat, k, eggs) increase resilience in humans against the Covid 19? জ আমিৰ (ডিম্ন, ছধ মাংস)গ্ৰহণের ফলে কভিড-১৯ রেপের বিরন্ধে প্রতিরোধ ক্ষমতা বেড়ে যায় এটা জানার জন্ত্র সচেতনতা মূলক বার্তা প্রচার আপনার চারে লেগেছে কি?) Yes) No

g) lf yes, how the awaren উত্তর হ্যাঁ হলে, এ কর্মকান্ডে আপনি f	চ্ভাবে উপকৃত হয়েছেন?	
1. Awareness develope	d	
2. Change in misconce	otion	
3. Change in food habi		
4. Others		
Please specify, how the a টল্লেখ করু ন	wareness program benefited?	
n) What is your commen সবার মান নিয়ে আপনার মন্তব্য কী	on the quality of services?	anna anna anna cana chuar airte airteann (crui annan an suara anna ainte ann ann ann ann ann ann anna a lanna
1. Excellent		
2. Good		
3. Moderate		
0		
4. Bad		
 4. Bad 5. Very Bad 		
5. Very Bad		
5. Very Bad 6. N/A		
 5. Very Bad 6. N/A 6. Module-2: (Mob 	le Veterinary Clinic) (মডিউল-২: মোৰাইল	৷ ভেটেরীনারি ক্লিনিক)
5. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar	y services through this activity?	। ভেটেরীনারি ক্লিনিক)
 5. Very Bad 6. N/A 6. Module-2: (Mob 	y services through this activity?	। ভেটেরীনারি ক্লিনিক)
S. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar বয় নাগ্যনে দেয়া টিকিৎসা সেবা পেবে	y services through this activity?	। ভেটেরীনারি ক্লিনিক)
S. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar বয় মাধ্যমে দেয়া টিকিৎসা সেবা পেয়ে Yes No	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
S. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar বয় মাধ্যমে দেয়া টিকিৎসা সেবা পেয়ে Yes No	y services through this activity?	। ভেটেরীনারি ক্লিনিক)
S. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar বয় নাধ্যনে দেয়া টিকিৎসা সেবা পেনে Yes No	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
5. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar বন্ন নাধ্যমে দেয়া চিকিৎসা দেবা পেনে Yes No b) If yes, for what types c কা বাণিৰ জন্ত পেৰা নিয়েছেন?	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
S. Very Bad S. Very Bad G. N/A S. Module-2: (Mob Did you avail veterinar An antura দেয়া চিকিৎসা সেবা পেবে Yes No No If yes, for what types c কান ধাণির জন্ম সেবা নিয়েছেন? 1. Cows	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
5. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar an ative (मग्ना हिकिश्मा लावा लावा Yes No b) If yes, for what types of a tiffa बाढा लावा तिखाइन? 1. Cows 2. Sonall	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
 S. Very Bad S. Very Bad 6. N/A C. Module-2: (Mobattal equation of the second structure of the se	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
5. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar an ative (मग्ना हिकिश्मा लावा लावा () Yes No b) If yes, for what types of a diffa बाढा लावा तिखाखत? 1. Cows 2. Sonali 3. Layers 4. Broilers	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)
5. Very Bad 6. N/A C. Module-2: (Mob a) Did you avail veterinar an ative (मग्ना हिकिश्मा लावा लावा () Yes No b) If yes, for what types of a diffa बाढा लावा तिखाखत? 1. Cows 2. Sonali 3. Layers 4. Broilers	y services through this activity? एहन कि?	। ভেটেরীনারি ক্লিনিক)

c) Was this service এ ব্যবস্থাটি আপনার জন্য সু		
্র ব্যবহাটে আগনার জন্ম গু Mes	איז ועס איז	
No No		
	nment on the quality of services	
সেবার মান সম্পর্কে আপনার	মন্তব্য কি?	
1. Excellent		
O 2. Good		
3. Moderate		
() 4. Bad		
5. Very Bad		
0 6. N/A		
	recently a second s	
D. Module-3: (Cash Transfer) (মডিউল-৩: নগদ অর্থ স্থানান্তর)	
a) Did vou receive	ash incentive to compensate during the Covid period?	
	কাটিয়ে উঠার জন্য নগদ অর্থ পেয়েছেন কি?	
O Yes		
O Yes O No		
0 No		
b) If yes, did you re		
) If yes, did you re মদি হাঁ হয়, আপনি কি জন্ম		
No b) If yes, did you re যদি ঘাঁ হয়, আপনি কি জন্ম 1. Cows		
No b) If yes, did you re থদি যাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonall		
No b) If yes, did you re যদি হাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonall 3. Layers		
No b) If yes, did you re থদি ঘাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonall 3. Layers 4. Brollers		
No b) If yes, did you re যদি হাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonall 3. Layers		
No b) If yes, did you re ধদি হাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonali 3. Layers 4. Brollers 5. Duck		
No b) If yes, did you re থিদি যাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonall 3. Layers 4. Brollers 5. Duck		
No b) If yes, did you re থদি ঘাঁ হয়, আপনি কি জন্ম 1. Cows 2. Sonall 3. Layers 4. Brollers 5. Duck		
No b) If yes, did you re tife til tst, within to be 1. Cows 2. Sonall 3. Layers 4. Brollers 5. Duck 1) Cow Category C1 = 2-5 Cows C2 = 6-9 Cows	নগদ পেয়েছেন:	
No b) If yes, did you re alf	নগদ পেয়েছেন:	
No b) If yes, did you re tife til tst, within to be 1. Cows 2. Sonall 3. Layers 4. Brollers 5. Duck 1) Cow Category C1 = 2-5 Cows C2 = 6-9 Cows	নগদ পেয়েছেন:	
No b) If yes, did you re tife til tst, untife b und 1. Cows 2. Sonall 3. Layers 4. Brollers 5. Duck 1) Cow Category C1 = 2-5 Cows C2 = 6-9 Cows	নগদ পেয়েছেন:	
No b) If yes, did you re tife til tst, within to be 1. Cows 2. Sonall 3. Layers 4. Brollers 5. Duck 1) Cow Category C1 = 2-5 Cows C2 = 6-9 Cows	নগদ পেয়েছেন:	

2) Sonali Category		
S1 = 100-500 Birds		
S2 = 501-1000 Bird	S	
S3 = 1001+ Birds		
3) Layers Category		
C L1 = 200-500 Birds		
C L2 = 501-1000 Bird	s	
C L3 = 1001+ Birds		
4) Broilers Category		
B1= 500-1000 Bird	5	
B2 = 1001-2000 B	rds	
B3= 2001+ Birds		
5) Duck Category		
D1 = 100-300 Bird		
D2 = 301-500 Bird		
O D3 = 501 Birds		
	't receive the Cash incentive?	
যদি না হয়, তাহলে কেন আপনি 1. Fraudulent	নগদ প্রণোদনা পান নি?	
2. Political Influence	a.	
3. Loss of Account		
4. Others (Specify)		
Please specify উল্লেখ করুন		
d) How many Cows/ ক্যাশ টাকা পান্তির সময়ে আপ	oultry did you have during the Cash receive? াৰ কয়টি গান্ডী/পোন্ট্ৰিছিল?	
e) When you receive আপনি কখন ক্যাশ টাকা পেয়ে		
yyyy-mm		
3333-0000		

	পেয়েছেন?
	r did you receive the money? পরেছেন?
	Bank Account
0 2	bKash
<u> </u>	Nagad
	the beneficiaries manage to sustain their Stock?
_	নার খানারের প্রাণিগুলোকে টিকিয়ে রাখতে পেরেছিলেন কি? es
0	
	much (Nos) the farmers sustain the size of their stock? ণি টিকিয়ে রাখতে পেরেছেন?
4010 QI	n initiates an accidences
	r decreased Livestock/ Poultry was managed? গ্ যাঁস নুরগি কীভাবে কমেছে ?
1	Culling
2	Death due to lack of feed
3	Sold below/lower regular price
4	. Own Consumption
5	Exchange in Community for Goods
6	Others
Please	specify, livestock decrease managed
উল্লেখ ক	

প্রাক্ত টা	v did you manage your stock size by the cash transfer? চা দিয়ে আপনি আপনার গ্রাণিডলোকে কিন্ডাবে টিকিয়ে রাখতে পেরেছেন?
	1. Buying Fodder
	2. Payment of Debt
	3. Increase the Number of Stock
	4. Buying Vaccine
	5. Availing Health Care (Dairy/Poultry)
	5. Family Expenses
	7. Others (Specify)
Pleas উলেশ	e specify, how you manage কন্দ্র
	as this helpful to keep life and livelihood normal during risk period of Covid-19?
কাৰ্ভড	১৯ এর বিপদসংকুল সময়ে জীৰন-জিৰিকা স্বাভাৰিক রাখতে গ্রদন্ত টাকা উপকারে এসেছিল কি? Yes
0	
1	
0	No
n) Di প্রদন্ত ট	গত l you manage to continue production using the received cash? কা দিয়ে খামারের উৎপাদন চালিয়ে যেতে পেরেছিলেন কি? Yes No
n) Di প্রদন্ত ট () () () If	l you manage to continue production using the received cash? কা দিয়ে খামারের উৎপাদন চালিয়ে যেতে পেরেছিলেন কি? /es
n) Di প্রদন্ত ট ০.i) lf বদি হাঁ	l you manage to continue production using the received cash? কা দিয়ে খামারের উৎপাদন চালিয়ে যেতে পেরেছিলেন কি? Yes No yes, how much production you have before the Covid situation?
n) Di প্রদন্ত ট ০০.i) If বিদি হাঁ	l you manage to continue production using the received cash? কা দিয়ে খামারের উৎপাদন চালিয়ে যেতে পেরেছিলেন কি? Yes No yes, how much production you have before the Covid situation? কোভিড পরিছিটির আগে আপনার কন্টা উৎপাদন ছিল?
n) Di Di da	l you manage to continue production using the received cash? কা দিয়ে খামারের উৎপাদন চালিয়ে যেতে পেরেছিলেন কি? Yes No yes, how much production you have before the Covid situation? কোভিড পরিছিতির আগে আপনার কন্তটা উৎপাদন ছিল?
n) Di 49765 0 0.i) If 1.1) I 1.2) I 1.2) I 2.1) (l you manage to continue production using the received cash? কা দিয়ে খামারের উৎপাদন চালিয়ে যেতে পেরেছিলেন কি? Yes No yes, how much production you have before the Covid situation? কোন্ডিড পরিস্থিতির আগে আপনার কতটা উৎপাদন ছিল? Milk-Litre/Day

3.1) 9	Sonali-Nos
3.2) \$	ionali-Taka
4.1) (ayers-Nos
4. 2) l	ayers-Taka
4.3) l	ayers (Egg-Dozen)/Day
4.4) l	ayers (Egg-Taka)/Day
5.1) [Broilers-Nos
5.2) [Broilers-Taka
6.1) [Duck-Nos
6.2) [Duck-Taka
o.ii) i যদি হাঁ	f yes, how much production you managed during the covid period (before cash incentive)? . কোডিড সময়কালে (নগদ প্ৰশোদনাৰ আলে) আপনি কতটা উৎপাদন পৰিচালনা করেন?
1.1) [/lilk-Litre/Day
1.2) 1	Allk-Taka/Day
14100400101100	

2.1) Cow-N	Nos
2.2) Cow-T	īaka
3.1) Sonal	i-Nos
3.2) Sonal	i-Taka
4.1) Layer	s-Nos
4.2) Layer	s-Taka
4.3) Layer	s (Egg-Dozen)/Day
4.4) Layer	s (Egg-Taka)/Day
5.1) Broile	rs-Nos
5.2) Broile	rs-Taka
6.1) Duck-	Nos
6.2) Duck-	Taka
o.iii) lf yes, যদি হ্যাঁ, নগদ হ	, how much production you managed after receiving the cash incentives? ৰূণোদনা পাওয়াৰ পৰ আপনি কতটা উৎপাদন পৰিচালনা করেছেন?

1.1) Milk-Litre/l	Day
1.2) Milk-Taka/I	Day
2.1) Cow-Nos	
2.2) Cow-Taka	
3.1) Sonali-Nos	
3.2) Sonali-Taka	
4.1) Layers-No:	
4.2) Layers-Tak	9
4.3) Layers (Eg	r-Dozen)/Day
4.4) Layers (Eg	-Taka)/Day
5.1) Broilers-No	ze
5.2) Broilers-Ta	ka
6.1) Duck-Nos	
6.2) Duck-Taka	

	nanage to sale your production? গণ্যাদি বিক্রয় করতে পেরেছিলেন ফি?
Yes	יויטויז ואשיא אאנט גינטועטיז ואי
0	
O No	
q.i) lf yes, H	ow much sale you had before Covid situation?
যদি হ্যাঁ হয়, কোণি	টড পরিস্থিতির আগে আপনার কত বি ক্রি ছিল?
1.1) Milk-Lit	re/Day
1.2) Milk-Tal	:a/Day
1000 (101 (101 (100 (100 (100 (100 (100	
2.1) Cow-No	IS
2.2) Cow-Ta	
2.2) COW-14	
3.1) Sonali-I	los
3.2) Sonali-1	aka
4.1) Layers-	Nos
4.2) Layers-	laka lainta la
1 3) Lavers	'Egg-Dozen)/Day
1.57 Layers	PPP parenti nal
4.4) Layers	Egg-Taka)/Day
5.1) Broilers	-Nos
	0.000 B)

5.2) Broilers-Ta	ка
6.1) Duck-Nos	
6.2) Duck-Taka	
q.ii) If yes, How	much sale you had during covid situation (before cash incentive)?
1.1) Milk-Litre/I	Day
1.2) Milk-Taka/l	Day
2.1) Cow-Nos	
2.2) Cow-Taka	
3.1) Sonali-Nos	
3.2) Sonali-Taka	3
4.1) Layers-No:	5
4.2) Layers-Tak	a
4.3) Layers (Egg	z-Dozen)/Day
4.4) Layers (Eg	z-Taka)/Day

5.1) Broi	lers-Nos
5.2) Broi	lers-Taka
6.1) Ducl	k-Nos
6.2) Ducl	k-Taka
q.iii) f ye	s, How much sale you had during after having the cash incentive?
1.1) Milk	-Litre/Day
1.2) Milk	.Taka/Day
2.1) Cow	-Nos
2.2) Cow	-Taka
3.1) Sona	ali-Nos
3.2) Sona	ali-Taka
4.1) Laye	rs-Nos
4.2) Laye	rs-Taka
4.3) Laye	rs (Egg-Dozen)/Day

4.4) La	iyers (Egg-Taka)/Day	
5.1) B	oilers-Nos	-
5.2) B	oilers-Taka	-
6.1) D	uck-Nos	
6.2) D	uck-Taka	-
	the received cash impacted your livelihoods?	-
	ণ আপনার জীবিকায় কিডাবে প্রভাব ফেলেছে? . Continuing the farming	
_	. Sustain the production	
_	. Recover the loss	
	. Increased income	
	. Stopped to take loan/debt	
	. Managed family expense	
_	. Managed the expense of Covid patient	
_	. Others	
Please উল্লেখ ক	e specify other ৰূপ	
s) is th উৎপাদন	ere any impact on your total income (daily) for change in production? পরিবর্তনের কারণে আগনার মোট আয়ের উগর এর কোন প্রভাব ছিল কি?	-
-	es	
0	lo	
receiv		
থাঁ হলে,	টাকা প্রাপ্তির কারণে অপনার মোট আয়ের কত শতাংশ হ্র্যুস-বৃদ্ধি হয়েছে বলে মনে করেন?	

i ফলে কোন পদ্যে বৈটিৰ থমেছেন? 1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others lease specify product diversified আথ করুন) Did you encounter any problem receiving the cash? যাশ প্রান্তিতে কোন অসূবিধা হয়েছিল কি? Yes No	No) If yes, would you please mention which product diversified? If war cere effectives 1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others Please specify product diversified tare effectives y) Did you encounter any problem receiving the cash? yre at factor effective effectives y Yes No) If yes, would please mention the reason? yre apeqRetite effectives 1. Lack of Letronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability		the cash transfer diversify the production? উন্ন কারণে উৎপাদিত পণ্যে বৈচিত্র আনতে পেরেছেন কি?
If yes, would you please mention which product diversified? I car लग नरण देगिव यत्याइन? 1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others lease specify product diversified car4 करन (Did you encounter any problem receiving the cash? (Piss) No (If yes, would please mention the reason? (Tack, wap[बेधा कांश कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability) If yes, would you please mention which product diversified?) Two rein notit 'diba unteen? 1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others "Please specify product diversified taxt approximation of the cash? 1. Didy you encounter any problem receiving the cash? 1. Didy angletin a	O Y	es
Text रका गएए देकि बतारहत? 1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others lease specify product diversified art agent art agent 1) Did you encounter any problem receiving the cash? 1) 4 alloco can agiltati agi	i) खल रकान नरएग्र दिगिव यरतरहन? 1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others Please specify product diversified रारा भे ककन Please specify product diversified रारा भे किन 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	0	10
1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others lease specify product diversified (प्राय कक्रन 10 Did you encounter any problem receiving the cash? 114 alf&co cein चन्न्रिया प्रदाष्टिल कि? Yes No 1 fyes, would please mention the reason? 1 tack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	1. Dairy Products 2. Meat (Cow) 3. Meat (Poultry) 4. Others Please specify product diversified ixet कक्रन V) Did you encounter any problem receiving the cash? iver, प्यपूरिश एस्ट्रिश कि? Yes No () If yes, would please mention the reason? iver, प्यपूरिश कांश कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability		
2. Meat (Cow) 3. Meat (Poultry) 4. Others lease specify product diversified tart कक्रन Did you encounter any problem receiving the cash? Int atlikets ceine range of the cash? Int atlikets ceine range of the cash? Yes No No Dif yes, would please mention the reason? Teter, angletia main fe? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	2. Meat (Cow) 3. Meat (Poultry) 4. Others Please specify product diversified CRM * ** Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please specify product diversified Please spec		
3. Meat (Poultry) 4. Others lease specify product diversified car4 करून o) Did you encounter any problem receiving the cash? car4 approx Yes No If yes, would please mention the reason? tacr, wayfetria mart flor? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	3. Meat (Poultry) 4. Others Please specify product diversified bit with the second s	_	
4. Others lease specify product diversified (대학 추종규) Did you encounter any problem receiving the cash? 기가 힘[&co ব্লান অञ्चरिधा रदाছिल कि?) Yes No) If yes, would please mention the reason? 한 रटल, অञ्चरिधात्र कांड्रम कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	4. Others	_	
lease specify product diversified মেখ করুন) Did you encounter any problem receiving the cash? যাশ শ্বান্তিতে কোন অসুবিধা হয়েছিল কি? Yes No) If yes, would please mention the reason? f হতে, অসুবিধায় কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	Please specify product diversified icati করুন v) Did you encounter any problem receiving the cash? pirt ধ্রান্ডিচে কোন অসুবিধা যুৱেছিল কি? Yes No No i) If yes, would please mention the reason? jī ফলে, অসুবিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	3	. Meat (Poultry)
য়েখ করুন) Did you encounter any problem receiving the cash? যাশ ধান্তিতে কোন অসুবিধা হয়েছিল কি? Yes No) If yes, would please mention the reason? î হতে, অসুবিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	ice ' क इन्त v) Did you encounter any problem receiving the cash? गाम शांडिएठ (कान प्रभूविश रदाहिल कि? Yes No) If yes, would please mention the reason? ग्री रहल, प्रभूविश व कांक्ष कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	4	. Others
য়েখ করুন) Did you encounter any problem receiving the cash? যাশ ধান্তিতে কোন অসুবিধা হয়েছিল কি? Yes No) If yes, would please mention the reason? î হতে, অসুবিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	ice ' क इन्त v) Did you encounter any problem receiving the cash? गाम शांडिएठ (कान प्रभूविश रदाहिल कि? Yes No) If yes, would please mention the reason? ग्री रहल, प्रभूविश व कांक्ष कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	Please	specify product diversified
yes No No If yes, would please mention the reason? रे छल, অসুবিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	y Yes No No) If yes, would please mention the reason? jī एल, 따횟역박져 해져야 하고 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	উল্লেখ ক	क् न
yes No No If yes, would please mention the reason? रे छल, অসুবিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	y Yes No No) If yes, would please mention the reason? jī एल, 따횟역박져 해져야 하고 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability		
Yes No If yes, would please mention the reason? two, अभूविधांत्र कांत्रणं कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	Yes No I) If yes, would please mention the reason? jī vcr, অসুৰিধাৰ কাৰণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability		
No If yes, would please mention the reason? Tecer, অসুৰিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	No No If yes, would please mention the reason? তাঁ হলে, অসুবিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	-	
) If yes, would please mention the reason? तें एल, अभूदिश्वत्र कांत्रग कि? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability) If yes, would please mention the reason? চাঁ হলে, অসুৰিধায় কাৰণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	() Y	es
গাঁ হলে, অসুৰিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	য়াঁ হলে, অসুবিধায় কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability		lo
গাঁ হলে, অসুৰিধার কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	য়াঁ হলে, অসুবিধায় কারণ কি? 1. Lack of literacy of electronic cash receives 2. Lack of Co-ordination 3. Selection process 4. Lack of accountability	v) If ve	as would please mention the reason?
 Lack of literacy of electronic cash receives Lack of Co-ordination Selection process Lack of accountability 	 Lack of literacy of electronic cash receives Lack of Co-ordination Selection process Lack of accountability 		
3. Selection process 4. Lack of accountability	3. Selection process 4. Lack of accountability		
4. Lack of accountability	4. Lack of accountability	2	. Lack of Co-ordination
4. Lack of accountability	4. Lack of accountability	3	. Selection process
		_	
		_	
		-	

Please spec উন্নেখ করুন	fy the reason
	ur comment on the quality of services
	র্হ আপনার মন্তব্য কি?
O 1. Excel	ent
Q 2. Good	
O 3. Mode	ate
O 4. Bad	
O 5. Very	ad
O 6. N/A	
	e 4: (Supplying Milk-Cream Separator)(Who didn't receive the Cash) : মিক্ষ-ক্রিম সেপারেটর-যন্ত্র সরবরাহ)
	ceive Milk-cream Separator Machine?
আপান⁄আপনার	যপ্রটি পেয়েছেন কি <i>?</i>
O NO	
	, what is the capacity per hour?
পেয়ে থাকলে ডং 1. 50-10	াদন ক্যাপাসিটি কত ছিল? ১ Inc
2. 150-2	
3. 350-5	
c) Are you u যন্ত্রটি ব্যবহার কর	sing this machine? জন কিঃ
Yes	
O No	
	v did you use the machine?
	ভাবে মেশিনটি ব্যবহার করেছেন?
1. Indivi	
2. Colle	lively

	নি যৌথন্ডাবে মেশিনটি ৰ্যবহায় করেন তবে আপনার মধ্যে কতজ্জন মেশিন থেকে পরিবেবা পাবেন
	/ much milk (Litre) you use to separate cream? 5 কি পরিমান দ্রধ <i>(</i> লিটার <i>)</i> থেকে ক্রিম আলাদা করছেন?
মিক্ষ-ক্রিন 🔵 Y	you manage to transform fresh milk using the milk cream separator? ন সেপারেটর যন্ত্রটি ব্যবহার করে ছগ্ধ প্রক্রিয়াজাত করতে পেরেছিলেন কি? /es lo
र्यो ररल, 1 2 3	es, which items you transformed from milk? ছধ থেকে আপনি কি তৈয়ী করছেন? . Milk Cream . Ghee 6. Butter 6. Others
Please উল্লেখ ক	e specify, transformed from milk क्रन
	ld you please mention the amount of transformed items using the milk cream separator (Daily) ন সেপারেটর যন্ত্রটি ব্যবহার করে কি পরিমান পণ্য তৈরী করতে পেরেছেন <i>?)</i>
1.1 Mi	lk Cream (KG)
1.2 Gł	nee (KG)
1.3 Bu	itter (KG)

এগুলো তৈরী করার প্রয়োজ	purposes to use the transformed products নে কি ছিল?	
1. Sale		
2. Own Consu	nption	
3. Exchange fo		
4. Others	0	
	nsformed products	
উল্লেখ করুন		
k) What is your co	mment on the quality of services	
সেবার মান সম্পর্কে আপন		
O 1. Excellent		
O 2. Good		
3. Moderate		
4. Bad		
5. Very Bad		
<u> </u>		
0 6. N/A	Vehicles Rental for Transportation and Selling Farm Product	s)
6. N/A F. Module 5: ((মেডিউল-৫: পরি a) Did you receive ছখ, ডিম বা মাংস বিকরের	Vehicles Rental for Transportation and Selling Farm Product বৈহন ও খামারে উৎপাদিত পণ্য বিক্রয়ের নিমিন্তে যানবাহন ভাড়া নেয়া) service from rental vehicles for milk/meat/egg sale? service from rental vehicles for milk/meat/egg sale? ৰ কাজে ডাড়া করা যানবাহনের সেবা গ্রহণ করতে পেরেছেন কি?	s)
6. N/A F. Module 5: ((মেডিউল-৫: পশি a) Did you receive ছখ, ডিম বা মাংস বিকরের	ন্ধবহন ও খামারে উৎপাদিত পণ্য বিক্রয়ের নিমিত্তে যানবাহন ভাড়া নেয়া) service from rental vehicles for milk/meat/egg sale? ল কজে ভাড়া করা যানবাহনের সেবা গ্রহণ করতে পেরেছেন কি? the volume you sold through this activity?	s)
6. N/A F. Module 5: ((মডিউল-৫: পরি a) Did you receive ছধ, ডিম বা মাংস বিক্রেয়ে Yes Yes No b) If yes, what was ঘাঁ হলে, এ ব্যবহার নাধ্যত	ন্ধবহন ও খামারে উৎপাদিত পণ্য বিক্রয়ের নিমিত্তে যানবাহন ভাড়া নেয়া) service from rental vehicles for milk/meat/egg sale? ল কজে ভাড়া করা যানবাহনের সেবা গ্রহণ করতে পেরেছেন কি? the volume you sold through this activity?	s)

	ggs (Dozen)
	pw farmers (male/ female) got benefit because of this services পন (পুরুষ/মহিলা) এ কর্মকান্ডের ফলে কিন্নপ উপকৃত হয়েছে?
	1. Reduce the loss
	2. Continue the business during lockdown
	3. Manage Income
	4. Manage family expense
	5. Safe them from Covid transmission
	6. Access to Market
	7. Others
	hat is your comment on the quality of services? মান সম্পর্কে আপনায় মন্তব্য কি?
	1. Excellent
0	
000	2. Good
0000	3. Moderate
00000	3. Moderate 4. Bad
000000	3. Moderate

Comments (Special Observation) মন্তব্য (বিশেষ পৰ্যবেক্ষণ)

Respondent's Photo উত্তরদাতার ছবি

Click here to upload file. (< 10MB)

Photo During Interview সাক্ষাৎকারের সময় ছবি

Click here to upload file. (< 10MB)

Attachments (PDF) e.g. Field Notes সংযুক্তি (পিডিএফ)

Click here to upload file. (< 10MB)

Checklist for Focus Group Discussion (FGD)

Froup Name: Venue:		CERC-EAP Evaluation							
	FGD Checklist for Beneficiaries								
Group Name: Venue: Date:									
Activity-1 (Awareness building messages through Electronic and Printed Media)									
 The effect Perception Current st perception The state The aware and contri 	ate of this perception: exists as it is, in n occurs: media publicity or else? of animal sale based on changing perce	ng and selling of products. and animal products like milk, meat, egg etc. Increasing, decreasing. How this changes in eption: sale increased or decreased or else. ic media and their role on changing perception							
Score	Interpretation	Answer (√)							
5	Excellent								
4	Good								
3	Moderate Bad								
1	Very bad								
	N/A								
	কার্যকলাপ- ১: (সচেতনতা মূলক বার্তা টি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিষ্টিতি কেমন?								
১। কো ২। গব ৩। প্রা ৪। এ: অথবাঅন্য কে	কাৰ্যবঞ্চাপ- ১: (সচেতনতা মূলক বাৰ্তা টি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? দিপণ্ড-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি নজ পণ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধ্যমে কো হান্ত ধারণার বর্তমান অবছা; পূর্বের ন্যায় রয়েছে, কমেছে নন কারণে;	নত পণ্য বিক্রায়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিস্তার ঘটে-এ ব্যপারে জনগনের ভ্রান্ত ধারণা; হ, বেড়েছে। ধারণার পরিবর্তপ কি ভাবে এসেছে? মিডিয়ার প্রচারণা							
১। কো ২। গব ৩। প্রা ৪। এ অথবাঅন্য কে ৫। পরি	কার্যবন্ধ্লাপ- ১: (সচেতনতা মূলক বার্তা টি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিষ্থিতি কেমন? দিপণ্ড-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি নিজ পণ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধ্যমে কো হান্ত ধারণার বর্তমান অবস্থা; পূর্বের ন্যায় রয়েছে, কমেছে ান কারণে: বির্তনশীল ধারণার উপর ভিত্তি কণ্ডে প্রাণিসম্পদ বিক্রম ব	নত পণ্য বিক্রায়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিস্তার ঘটে-এ ব্যপারে জনগনের ভ্রান্ত ধারণা; হ, বেড়েছে। ধারণার পরিবর্তপ কি ভাবে এসেছে? মিডিয়ার প্রচারণা							
১। কো ২। গব ৩। প্রা ৪। এ অথবাঅন্য কে ৫। পরি	কার্যবন্ধ্লাপ- ১: (সচেতনতা মূলক বার্তা টি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিষ্থিতি কেমন? দিপণ্ড-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি নিজ পণ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধ্যমে কো হান্ত ধারণার বর্তমান অবস্থা; পূর্বের ন্যায় রয়েছে, কমেছে ান কারণে: বির্তনশীল ধারণার উপর ভিত্তি কণ্ডে প্রাণিসম্পদ বিক্রম ব	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্তার ঘটে-এ বাপারে জনগনের ভ্রান্ত ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবছার সৃষ্টি হয়েছে; ধুচার ধারণাগত পরিবর্তণ ও বিক্রয় বিষয়ে কিরপ প্রভাব ফেলেছে;							
১। কো ২। গব ৩। প্রা ৪। এ অথবা অন্য কে ৫। পরি ৬। জিন 1. Cash r 2. How c pande 3. Status 4. Suffici	কার্যকলাপ- ১: (সচেতনতা মূলক বার্তা রি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? শিপও-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি লন্ধ পদ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধামে কে হান্ত ধারণার বর্তমান অবছা: পূর্বের ন্যায় রয়েছে, কমেছে নন কারণে: বর্তনশীল ধারণার উপর ভিত্তি কওে প্রাণিসম্পদ বিক্রয় ব ট বা ইলেক্ট্রনিক মিডিয়ার মাধ্যমে সচেতনতা মূলক সম্প্র Activity-3 (Cash received or not during covid-19 pander	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্ণার ঘটে-এ ব্যপারে জনগনের ভ্রান্ত ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবহার সৃষ্টি হয়েছে; বুচার ধারণাগত পরিবর্তপ ও বিক্রয় বিষয়ে কিরূপ প্রভাব ফেলেছে; Transfer) mics, how much in average ng pandemic; and contribution to recover from sh covid-19 driven consequences							
১। কে ২। গব ৩। প্রা ৪। এর অথবা অন্য কে ৫। পরি ৬। জিন 1. Cash r 2. How c pande 3. Status 4. Suffici 5. What	কার্যকলাপ- ১: (সচেতনতা মূলক বার্তা রি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? শিপণ্ড-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি লৈ পণ্য মেন দুধ, ডিম ও মাংস ও প্রাণির মাধামে কে হান কারণে; বৈর্তনশীল ধারণার উপর ভিত্তি কওে প্রাণিসম্পদ বিক্রয় ব ট বা ইলেক্ট্রনিক মিডিয়ার মাধ্যমে সচেতনতা মূলক সম্প্র Activity-3 (Cash received or not during covid-19 pander ash benefits business, especially durin mic-driven loss of timely and hassle-free receiving cas ency of cash received against loss or c is your comments on this service, plea. Interpretation	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্ণার ঘটে-এ ব্যপারে জনগনের ভ্রান্ত ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবহার সৃষ্টি হয়েছে; বুচার ধারণাগত পরিবর্তপ ও বিক্রয় বিষয়ে কিরূপ প্রভাব ফেলেছে; Transfer) mics, how much in average ng pandemic; and contribution to recover from sh covid-19 driven consequences							
১। কে ২। গব ৩। প্রা ম্বিথবা অন্য কে ৫। পরি ৬। ফ্রিন 1. Cash r 2. How c pande 3. Status 4. Suffici 5. What	কার্যকলাপ- ১: (সচেতনতা মূলক বার্তা রি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? দিপত-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি জি পদ্য মেন দুধ, ডিম ও মাংস ও প্রাণির মাধামে কে রন্ড ধারণার বর্তমান অবন্থা: পূর্বের ন্যায় রয়েছে, কমেছে দন কারণে: বির্তনশীল ধারণার উপর ভিত্তি কণ্ডে প্রাণিসম্পদ বিক্রয় ব ট বা ইলেক্ট্রনিক মিডিয়ার মাধ্যমে সচেতনতা মূলক সম্প্র Activity-3 (Cash eccived or not during covid-19 pander ash benefits business, especially durin mic-driven loss of timely and hassle-free receiving cas ency of cash received against loss or ca is your comments on this service, pleat Interpretation Excellent	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্তার ঘটে-এ ব্যপারে জনগনের ভ্রম্ভ ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবছার সৃষ্টি হয়েছে; বুচার ধারণাগত পরিবর্তণ ও বিক্রয় বিষয়ে কিরপ প্রভাব ফেলেছে; Transfer) mics, how much in average ng pandemic; and contribution to recover from sh covid-19 driven consequences use mention.							
১। কো ২। গব ৩। প্রা ৪। এ: অথধবা অন্য কে ৫। পরি ৬। প্রি . Cash r 2. How c pande 3. Status 4. Suffici 5. What 5. What	কাৰ্যকলাপ- ১: (সচেতনতা মূলক বাৰ্তা মি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? দিপও-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি নিজ পণ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধ্যমে কে হার ধারণার বর্তমান অবছা: পূর্বের ন্যায় রয়েছে, কমেছে নান কারণে: বর্তনশীল ধারণার উপর ভিন্তি কণ্ডে প্রাণিসম্পদ বিক্রয় ব ট বা ইলেক্ট্রনিক মিডিয়ার মাধ্যমে সচেতনতা মূলক সম্প্র Activity-3 (Cash received or not during covid-19 pander ash benefits business, especially durin mic-driven loss of timely and hassle-free receiving cas ency of cash received against loss or c is your comments on this service, pleat Interpretation Excellent Good	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্তার ঘটে-এ ব্যপারে জনগনের ভ্রম্ভ ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবছার সৃষ্টি হয়েছে; বুচার ধারণাগত পরিবর্তণ ও বিক্রয় বিষয়ে কিরপ প্রভাব ফেলেছে; Transfer) mics, how much in average ng pandemic; and contribution to recover from sh covid-19 driven consequences use mention.							
>। (क) २। (a) ७। आषि ८। (a) प्राप्त (a) प्राप्त (a) ८। (b) ८। (b) ८। (b) 1. Cash r 2. How copande 3. Status 4. Suffici 5. What 5. 4 3 3	কাৰ্যবন্দ্ৰাপ- ১: (সচেতনতা মূলক বাৰ্তা মি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? দিপত-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি নিজ পণ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধ্যমে কে হান কারণে: বর্তনশীল ধারণার উপর ভিন্তি কণ্ডে প্রাণিসম্পদ বিক্রয় ব ট বা ইলেক্ট্রনিক মিডিয়ার মাধ্যমে সচেতনতা মূলক সম্প্র Activity-3 (Cash received or not during covid-19 pander ash benefits business, especially durin mic-driven loss of timely and hassle-free receiving cas ency of cash received against loss or c is your comments on this service, plea Interpretation Excellent Good Moderate	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্তার ঘটে-এ ব্যপারে জনগনের ভ্রম্ভ ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবছার সৃষ্টি হয়েছে; বুচার ধারণাগত পরিবর্তণ ও বিক্রয় বিষয়ে কিরপ প্রভাব ফেলেছে; Transfer) mics, how much in average ng pandemic; and contribution to recover from sh covid-19 driven consequences use mention.							
১। কো ২। গব ৩। প্রা ৪। এ: অথধবা অন্য কে ৫। পরি ৬। প্রি . Cash r 2. How c pande 3. Status 4. Suffici 5. What 5. What	কাৰ্যকলাপ- ১: (সচেতনতা মূলক বাৰ্তা মি ভিড-১৯ এর প্রকোপ ও বর্তমান পরিছিতি কেমন? দিপণ্ড-হাঁস মুরগীর খামারগুলোতে এবং খামারে উৎপাদি নিজ পণ্য যেমন দুধ, ডিম ও মাংস ও প্রাণির মাধ্যমে কে হার ধারণার বর্তমান অবছা: পূর্বের ন্যায় রয়েছে, কমেছে নান কারণে: বর্তনশীল ধারণার উপর ভিন্তি কণ্ডে প্রাণিসম্পদ বিক্রয় ব ট বা ইলেক্ট্রনিক মিডিয়ার মাধ্যমে সচেতনতা মূলক সম্প্র Activity-3 (Cash received or not during covid-19 pander ash benefits business, especially durin mic-driven loss of timely and hassle-free receiving cas ency of cash received against loss or c is your comments on this service, pleat Interpretation Excellent Good	নত পণ্য বিক্রয়ে কোভিড-১৯ এর প্রভাব; গভিড-১৯ বিষ্তার ঘটে-এ ব্যপারে জনগনের ভ্রম্ভ ধারণা; হ, বেড়েছে। ধারণার পরিবর্তণ কি ভাবে এসেছে? মিডিয়ার প্রচারণা কমেছে, বেড়েছে বা অন্যকোন অবছার সৃষ্টি হয়েছে; বুচার ধারণাগত পরিবর্তণ ও বিক্রয় বিষয়ে কিরপ প্রভাব ফেলেছে; Transfer) mics, how much in average ng pandemic; and contribution to recover from sh covid-19 driven consequences use mention.							

কার্যকলাপ- ৩: (নগদ অর্থ প্রেরণ)

কোভিড-১৯ এর ঝুঁকিপূর্ণ সময়ে নগদ অর্থ পাওয়া গিয়েছিল কিনা? গড়ে কত ছিল? 21

কোভিড-১৯ এর ঝুঁকিপূর্ণ সময়ে নগদ অর্থ কিভাবে ব্যবসাকে উপকৃত করেছে? এবং অতিমারির কারণে ব্যবসায়িক ক্ষতি কাটিয়ে 21 উঠতে এর অবদান কেমন ছিল?

01 সময়োচিত ও ঝামেলা মুক্ত ক্যাশ প্রাপ্তি বিষয়ক অবস্থা কেমন ছিল? ৪। কোভিড-১৯ এর কারণে ক্ষয়-ক্ষতির তুলনায় নগদ ক্যাশ প্রাপ্তির পর্যাপ্ততা কেমন ছিল?

Activity-5 (Vehicles Rental for selling of Farm produces)

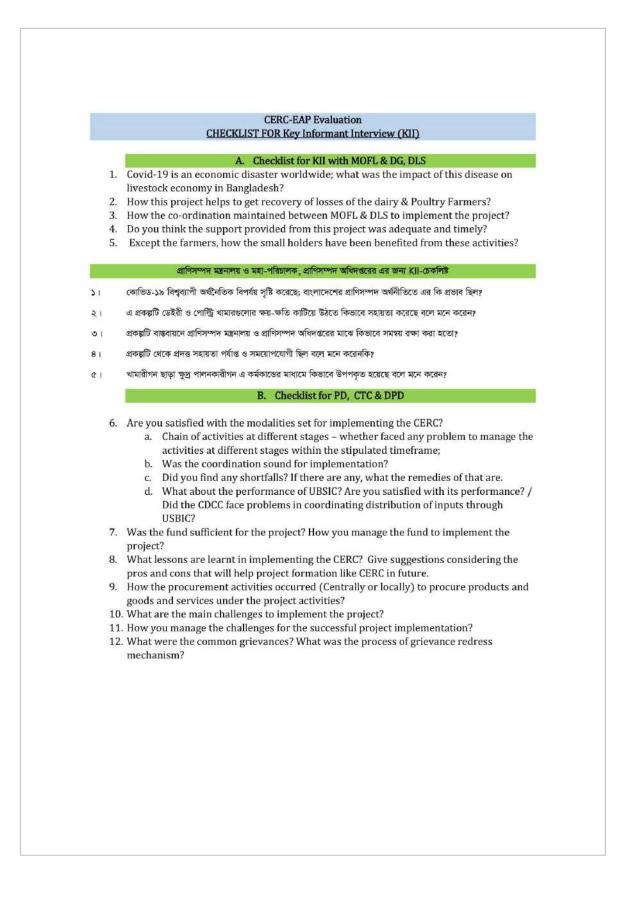
- 1. The presence of rental vehicle provided under this project
- Usage of rental vehicle for selling farm produces 2.
- 3. Benefits driven by rental vehicle for business and income
- 4. Role of rental vehicle during Covid-19 pandemic
- 5. Problems or shortcoming for getting rental vehicle support
- 6. What is your comments on this service, please mention.

Score	Interpretation	Answer (√)
5	Excellent	
4	Good	
3	Moderate	
2	Bad	
1	Very bad	
0	N/A	

কার্যকলাপ-৫ (খামারজাত পন্য পরিবহন ও বিক্রয়ের কাজে যানবাহন ভাড়াকরণ)

- 51
- এ প্রকল্পের আওতায় ভাড়াকৃত যানবাহনের ব্যবহার বিষয়ক উপস্থিতি? খামারে উদপাদিত পণ্য বিক্রির জন্য ভাড়া গাড়ির ব্যবহার কেমন ছিল? 21
- 01 ব্যবসা ও আয়ের ক্ষেত্রে ভাড়াকৃত যানবাহনের ব্যবহারের ভূমিকা;
- 81 অতিমারি সময়ে ভাড়াকৃত যানবাহনের ভূমিকা প্রসঙ্গে।
- ভাড়াকৃত যানবাহনের সুবিধাদি পেতে কি ধরনের সমস্যা বা ঘাটতি ছিল? 01

Checklist for Key Informant Interview (KII)



প্রকল্প পরিচালক,	সিটিসি	জ কিপিকি হ	Tela mar KI	1 - (চকলিই-
STAR INVITE			IN THE STOLEN	

- ১। একল্পটি বান্তবায়নের জন্য পদ্ধতিগত বিষয়াদিও ব্যাপারে আপনিকি সম্ভষ্ট?
 - ক) বিভিন্ন পর্যায়ে কাজের ধারাবাহিকতা রক্ষায়- নির্ধারিত সময়সীমার মধ্যে কার্যাদি সম্পাদনে কোন প্রকার অসুবিধার সম্মুখীন হতে হয়েছেকি?
 - খ) বান্তবায়ন কাজের সমন্বয় যথাযথ ছিল কি?
 - গ) প্রকল্প বান্তবায়নের ক্ষেত্রে কোন ঘাটতি পরিলক্ষিত হয়েছেকি? যদি হয়ে থাকে তাহলে এর প্রতিকার কিতাবে হয়েছে
 - য) ইউ বি এস আই সি এর কার্যাদির উপর আপনার মতামত কি? আপনিকি তাঁদের কর্মসম্পাদনে সঞ্জষ্ট? ইউ বি এস আই সি- এর মাধ্যমে দ্রব্যাদি বিতরণে সি ডি সি সি-কে কি সমন্বয়ের ক্ষেত্রে কোনপ্রকার অসুবিধার সম্মুখীন হতে হয়েছিল?
- ২। প্রকল্পের জন্য তহবিল পর্যাগু ছিল কি? প্রকল্পটি বাস্তবায়নের জন্য তহবিল ব্যবস্থাপনা কিভাবে করেছেন?
- ৩। প্রকল্পটি বান্তবায়ন করতেগিয়ে শিক্ষনীয় বিষয় কিকি ছিল? ভবিষ্যতে অনুরূপ প্রকল্প গ্রহণের সময় ভাল-মন্দ বিষয়াদি বিবেচনায় নিতে সহায়ক হবে এমন কিছু পরামর্শ দিন।
- ৪। প্রকল্পের আওতায় পণ্যাদি ও সেবাসমূহের ক্রয় প্রক্রিয়া কিভাবে হয়েছিল? (স্থানীয় ভাবে/ কেন্দ্রীয় পর্যায়ে)
- ৫। প্রকল্পটি বান্তবায়নের ক্ষেত্রে প্রধান অন্তরায়গুলো কি ছিল?
- ৬। সফল ৰান্তবায়নের জন্য অন্তরায়গুলো কি ভাবে কাটিয়ে উঠেছেন?
- ৭। সাধারণ অভিযোগগুলো কি ধরণের ছিল? অভিযোগ মিটাতে কি কৌশল অবলম্বন করেছেন?

C. Checklist for KII with PMU

- 3. How PMU monitor the overall project implementation?
- e. How you monitor the disbursement, commodities and inputs?
 - a. Was procurement and disbursement of inputs on time?
 - b. Did the monthly disbursement report with financial details on: (i) payment for goods, (ii) payment for works, (iii) payment for services, (iv) cash bank transfers for compensation packages, (v) overhead & management cost help in decision making and necessary adjustments?
- o. How you Monitor the procurement related activities?
- 8. Did you follow the normal procurement rules?
- ¢. What are the shortfall to follow the procurement rules?
- How Data managed, finalized and handling to cash transfer and completion of other related activities?
- Did PMU provided the Covid-19 protocols or instruction to the implementing agencies?
- b. Did the project activities follow Environmental and Social Management Framework during the project implementation?

PMU কর্মকর্তাগণের জন্য KII-চেকলিষ্ট:

- ১। PMU প্রকল্পের সামগ্রীক বান্তবায়ন কর্মকান্ড কিভাবে পর্যবেক্ষণ করেছেন?
 - আপনারা উপকরণ এবং পণ্যাদি বিতরণ কি ভাবে পর্যবেক্ষণে রেখেছেন?
 - ক) উপকরণ ক্রয় ও বিতরণ কি যথাসময়ে হয়েছে?
 - খ) বিতরণ কার্যের মাসিক বিবরণী আর্থিক বিষয়াদি সহ (ক) পণ্যাদির মূল্য পরিশোধ সংক্রান্ত (খ) নির্মান কার্যাদির ব্যয় মিটানো সংক্রান্ত (গ) সেবা ক্রয় সংক্রান্ত (ঘ) ক্ষয়-ক্ষতি কাটিয়ে উঠার নিমিত্তে প্রদন্ত ক্যাশ সংক্রান্ত (ঙ) ব্যবছাপনা ও সিদ্ধান্ত মূলক কাজের জন্য জনপ্রতি থরচাদি সমন্বয় সংক্রান্ত বিবরণী প্রদান করা হত কি ?
- পণ্য ক্রয় সংক্রান্ত কর্মকান্ড কিভাবে পর্যবেক্ষণ করা হতো?

21

8। পণ্যাদি ক্রয়ে স্বাভাবিক ক্রয় প্রক্রিয়ার রীতি-নীতি অনুসরণ করা হয়েছে কি?

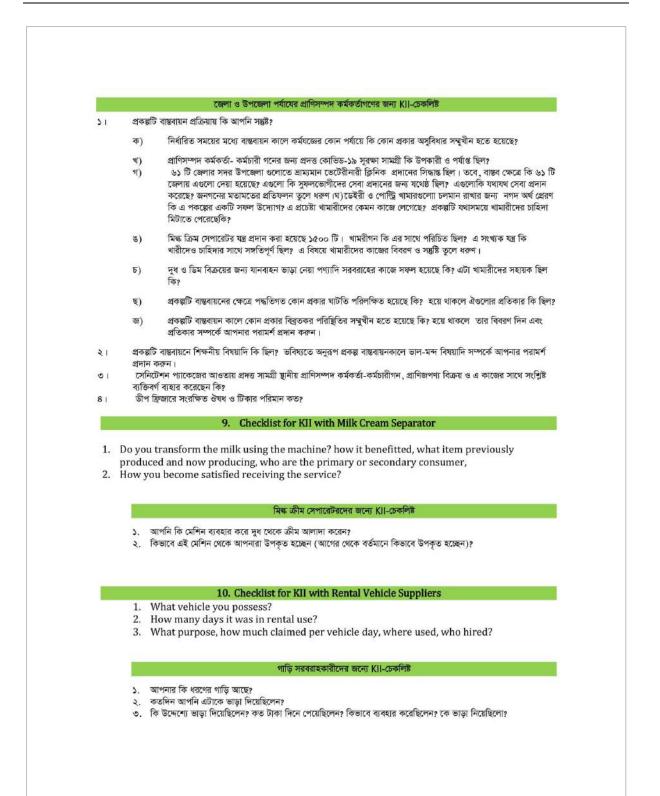
ত্রন্থ প্রক্রিয়ার স্বাভাবিক রীতি-নীতি অনুসরণ করার অসুবিধা কি ছিল? 01 ক্যাশ প্রেরণের ও অন্যান্য কর্মকান্ডের তথ্যাদি ব্যবস্থাপনা, চুড়ান্তকরণ, ব্যবহার কিভাবে করা হয়েছে? 51 PMU থেকে বান্তবায়ন সংস্থায় কি কোভিড-১৯ স্বাস্থ্য বিধি সংক্রান্ত কোন নির্দেশনা প্রেরিত হয়েছে? 91 প্রকল্পের কর্মকান্ডগুলো বান্তবায়নকালে কি পরিবেশ ও সামাজিক কাঠামোর বিধানাবলী অনুসূত হয়েছে? b I D. CHECKLIST FOR KII WITH DIRECTOR (DIVISION) 1. Did you involved in the CERC-EAP? 2. How you/your department Involve with the activities of CERC_EAP? 3. What are the challenges you face to implement the EAP? 4. How you encounter the problems? 5. How you solved the emerging problems? What are the lessons learned in implementing the EAP? 6. বিভাগীয় পর্যাযের প্রাণিসম্পদ কর্মকর্তাগণের জন্য KII-চেকলিষ্ট আপনি কি CERC-EAP বান্তবায়নের সাথে জড়িত ছিলেন? 3. আপনি/আপনার দপ্তর কিভাবে CERC_EAP বাস্তবায়নের সাথে জড়িত ছিল? 2. EAP বান্তবায়নের ক্ষেত্রে কিকি ধরনের সমস্যার সম্মুখ্খীন হয়েছেন? 0. EAP বান্তবায়নের ক্ষেত্রে সমস্যা গুলোর সমাধান কিভাবে করেছেন? 8. EAP বাস্তবায়নের ক্ষেত্রে অর্জিত জ্ঞান ভবিষ্যতে কিভাবে কাজে লাগানো যাবে বলে আপনি মনে করেন? 0 7. CHECKLIST FOR KII WITH UBSIC (ULO/ UNO) 1. Did you directly involved in the process? 2. Please describe your opinion if you directly involved in this process? 3. If not/ or promoted, Please describe your opinion. 4. Did the project face problem in beneficiary selection? e.g., beneficiaries' registration, cross checking of it, beneficiaries' list approval, local or political influence, etc. 5. Was the selection of beneficiaries transparent and authentic? Did you face any local or political influence in selecting the beneficiaries; any problem for beneficiaries' registration, cross checking of it, beneficiaries' list approval? 6. Are you satisfied with the modalities set for implementing the CERC? 7. Chain of activities at different stages - whether faced any problem to manage the activities at different stages within the stipulated timeframe; 8. Did you find any shortfalls? If there are any, what the remedies of that are. 9. Quick implementation of all actions ensures success of the project like CERC. Was procurement and disbursement of inputs on time? 10. What lessons are learnt in implementing the CERC? Give suggestions considering the pros and cons that will help project formation like CERC in future

TIDATA		
UBSIC-এর জন্য	ĸ	-Chchige 8

- ১। সুফলভোগী নির্বাচপে প্রকল্পের কোন অসুবিধা হয়েছে কি? যেমন: সুফলভোগী নিবন্ধন, যাচাই প্রক্রিয়া, সুফলভোগীর তালিকা অনুমোদন, ছানীয় বা রাজনৈতিক প্রভাব, ইত্যাদি।
- ২। সুফলভোগী নির্বাচণ প্রক্রিয়া কি শ্বচ্ছ ও যথাযথ ভাবে হয়েছে? গুফলভোগী নির্বাচণে কি আপনকে ছানীয় বা রাজনৈতক প্রভাবের সম্মুখীন হতে হয়েছে? সুফলভোগী নিবন্ধনে, যাচাই-বাছাই প্রক্রিয়ায়, বা তালিকা অনুমোদনে কি কোন প্রকার অসুবিধায় পড়তে হয়েছে।
- একল্পটি বান্তবায়ন প্রক্রিয়ায় কি আপনি সন্তুষ্ট?
- ৪। নির্ধারিত সময়ের মধ্যে বান্তবায়ন কালে কর্মযন্ডের কোন পর্যায়ে কি কোন প্রকার অসুবিধার সম্মুখীন হতে হয়েছে?
- ৫। প্রকল্পের কর্মযজ্ঞে কোনপ্রকার ঘাটতি পরিলক্ষিত হয়েছেকি? যদি হয়েথাকে তাহলে এর প্রতিকারের উপায়গুলো কি ছিল? ৬। সকল কর্মকান্ডের দ্রুত বাস্তবায়ন সফল ভাবে সম্পন্ন করতে হয়েছে। উপকরণগুলোর ক্রয় ও বিতরণ প্রক্রিয়া কি যথাসময় হয়েছে?
- ৭। প্রকল্পটি বাস্তবায়নে শিক্ষনীয় বিষয়াদি কি ছিল? ভবিষ্যতে অনুরূপ প্রকল্প বাস্তবায়নকালে ভাল-মন্দ বিষয়াদি সম্পর্কে আপনার পরামর্শ প্রদান করুন।

8. Checklist for KII with District and Upazilla level officer and others

- 1. Are you satisfied with the modalities set for implementing the CERC?
 - a. Chain of activities at different stages whether faced any problem to manage the activities at different stages within the stipulated timeframe.
 - b. Were the health safety items sufficient and beneficial for DLS staff?
 - c. Mobile Veterinary Clinics (MVCs), one for each of the sadar upazilas of 61 districts was allotted. Do the MVCs practically available in all of 61 districts? Was this allocation sufficient for providing services to the beneficiaries? Does it work practically well? Please describe people's responses to MVCs.
 - d. Was the cash transfer to the dairy and poultry farmers for business continuation a successful activity of CERC? Would you like to rank its demand to the farmers? Did the CERC fulfill farmers demand on time?
 - e. The allotted number of milk cream separator is 1500. Were the farmers familiar with this separator? Does this number (1500) match with farmer's demand? Describe farmers' performance and satisfaction related to this.
 - f. What was the performance of rental cost for milk/eggs van service to facilitate supply chain? Were the modalities set for providing this service supportive?
 - g. Did you find any shortfalls in the modalities set for the CERC implementation? If there are any, what the remedies of that are.
 - h. Did you face any problem and fall in awkward situation in implementing the activities? If yes, please describe and suggest solutions for that.
- 2. What lessons are learnt in implementing the CERC? Give suggestions considering the pros and cons that will help project formation like CERC in future.
- 3. Did Local officials, Government technicians and all workers involved in the handling and distribution of livestock products used the sanitation packages provided by DLS?
- 4. What was the volume of medicines and vaccines stored in the deep freeze?



Appendix II: Annual Procurement Plan for EAP (2020-21)

	ivision			: Min	istry of	Fishe	eries ar	d Livesto	ck								
Agency					Contract Contractor		and a state of the state of the	k Service:	1111								
Procuring H	Entity Name				ect Din						_						
Project Nar							airy De	velopmen	t Proi	ect Code	. 2242 5	9700					
	t Name & source of	Fund	l					Response					ed Funds	from DPI	9		
8 X.				Processon	Coreract Approvi	Sourc	End		Not			17.9	1997	1 11 11 10		Totai tine	
Package No.	Description of Procurement Package	Unit	Quint	ent Method · & Type	ng Authorit S	e of Fonds	Cost (Tk, in hids)	Time Code for Proces	teled II Goods	Adventise Tender	Tender Opening	Tender Evaluation	Approval to award	Notification of Award	signing of Contract	to contract signing	Time Comp of Cor
	2	3	4	5	6	Ť	8	9	10	11	12	13	14	15	16	17	1
A. Services	5													1		1	1
DLS/LDDPEAPER /NCS-I	Preparation of TVC Menologue on mmediate response to Corona	Fim	. 01	RPQ	Project Director		3 825	Planned Dates Planned Days Actual Dates		07,07/2020	16/07/2020 9	1607/2020 0	1907/2020	1947/2026	20/07/2020	13	19/00
DLSADOPEAPER /NCS-2	Preparation of TVC Monologue on Consumption of Mills, Meat and Eggs to Fight approact Corona	Firm	01	RFQ	Project Director	IDA	3,825	Ransed Dates Ranaed Days Actual Dates		67.01/2020 0	16/07/2029 9	16/07/2020 0	19/07/2025 3	15/07/2020 0	20/07/2020 1	13	1908 30
DISLDOPEAPER /NCS-3	Preparation of TVC Dialogue on Continuation of Farming Business to contribute country Food	Fen	01	REQ	Project Director		5.10	Planted Dates Planted Days Actual Dates		07/07/2020	16/07/2020 9	16/07/2020 0	19607/2020 3	19/07/2020	25/07/2020	13	19.68
DIST.DOPEAP.ER /NCS4	Security Preparation of TVC Dialogue on importance of consumption of	Firm			Project	IDA		Planned Dates Planned Days		12/07/2000	21/07/2020	21/07/2020	23/07/2020	23/07/2020	23/07/2020		22/08
DPEAPERNCS-5	Animal Protein during corona situation	Firm	01	RFQ	Director		5.10	Actual Dates				v				12	30
	Preparation of Docu Drama in importance of feeding slage to Farm Animal	TIM	0)	RFQ	Project Uirector	IDA.	6,375	Planned Dates Planned Days Actual Dates		12:07/2020 Ø	21/67/2020 9	21/97/2020 0	23,63/2020	23/07/2020 0	1	12	22/08
DP/EAP.ER/NCS-6	Preparation of Doca Drama on importance of Farm Hygiese and Workers Health Safety during Coxid-19 lockdown	Firm	61	RFQ	Project Director	IDA	6.375	Planned Dates Planned Days Actual Dates		26/07/2028 9	4/08/2020 9	04/08/2020	66(08/2020 2	06/08/2020 8	99/04/7020 1	.14	08/09
DREALERNIS-7	Preparation of Documentary 20 Development of LDDP and EAP for Livestock Sector	Fina	01	8FQ	Project Director	IDA	1225	Planned Dates Planned Days Actual Dates		260072020 0	4%8/2020 9	04/08/2928 0	06/08/2026	0016/2020	09:08:2020 3	14	08/09 30 d
DPEAPER/NCS-8	Preparation of Documentary on Contribution of CERC-EAP for Business Confination and Seppiy	Fine	(1	RFQ	Project Director	IDA	1.225	Planned Dates Planned Days Actual Dates		26/07/2020 0	498/2920 9	04/08/1020 0	06708/2020 2	05/08/2020 0	0905/2020 3	14	08:09/ 30.4
DLSIDDP/EAPIER (\$40)	Chain Resources Int'l Consultant to prepare EAP Implementation Field Manual	MM	01	555	Project Director	IDA	12.75	Planned Dates Planned Days Actual Dates		01/07/20 0	14/01/20 14	21/07/20 7	21/(10) 7	4.05/20	1(92)	63	18112 50 d
		Tota	for A		_		57.1	Actual Units									

		A	nnua	al Pro	curen	ient	Plan f	for Emei	geno	cy Actio	on Plan	(2020-2		udget: De	velopmei	nt (RPA)	
Ministry/Divis	sion			: Min	istry of	Fish	eries an	d Livestoo	k								
Agency					tion in the second		(and the second s	k Services									
Procuring Enti	ity Name	-			ect Dir		i restor	a del vices				_	-				
							1 0		n :	0.1							
Project Name								velopmen									
Component Na	ame & source of	Fund		Conti	ngency	Eme	rgency	Response	Com	ponent (C	CERC); l	nallocate	ed Funds i	from DPI)	_	
Padage No	Description of Processenest Facility	Unit	Quant Ry	Processor ent Method & Type	Contract Approvi ng Authorit Y	Sourc e of Funds	Exd Cost (Tk in lakh)	Time Code for Process	Not used in Goods	Advertise Tender	Tender Opering	Tender Evoluation	Approval so award	Notification of Award	signing of Contract	Total time to contract sgring	Time fo Complets of Conna
	1	3	4	3	. 61	7	1	9	10	11	12	10	14	15	16	17	18
B. Goods																	
								Planned Dates		15/07/2020	23/07/2020	23/07/2020	26/07/2020	26/07/2020	27/07/2020		16/08/202
DLSLDDP/EAPER/G-9	Supply of Surgical Musk and Hand Gloves	N65	LS	RFQ	Project Director	IDA	17.85	Planned Days		0	9	.0	3	0	1	13	20 days
								Actual Dates	_				_				
	Supply of Antiseptic		- 2.47		Project			Planted Dates	_	15/8/7/2628	23/97/2020	23/07/2026	26/01/2020	26/07/2020	27/07/2020		16.838/202
DLSLDDP/EAPERG-10	Disinfectant and Elesching Powder	Nos.	15	RFQ	Director	IDA	16:21	Planned Days Actual Dates		0	9	g	3	0	1	13	20 days
		-				-		Planed Dates	_	21/07/20	05/08/20	12/08/20	1968/20	Accordina	100000 A		
DLSLDDPEAPERG-D	Procurement of MVC with	Not	61	OTM	MoFL.	IDA	3376.25	Plamed Days		0	14	1208/2/	19966-29	26/08/20	23/99/29	63	23/12/202
	registration			(NCB)			Sec. 1	Actual Dates	-				- 6	-		0.7	90 days
	Procurement of Milk Cream							Planned Dates	-	01/07/29	14/07/20	21/07/29	28/07/20	4308/20	1/09/20		1/11/2030
DLS4.DDP/EAP/ER/G-12	Separator Machine	Nos	400	OTM (NCB)	Project Director	IDA	782.0	Planned Days		0	14	1	7	1	28	63	t0 days
	(350-500L/hour)			(construction)	area and			Actual Dates					100				
	Protorement of Milk Cream			-				Planned Dates		01/07/20	14/97/29	21/07/20	28,07,20	4,03/20	1/09/25		1/11/2020
DLSCDOP/EAP/ER/G-13	Separator Machine (150-200L/hour)	Nes.	509	OTM (NCB)	Project Director	IDA	637.5	Planod Days		0	14		7	7	28	65	60 days
	(1795299124000)			0.960.0				Actual Dates									
	Procurement of Milk Cream			OIM	Project			Planed Dates		01.01/20	14/07/20	21/07/29	28,07/20	4/08/20	1/09/20		1/11/2080
DUSEDOP/EAP/ER/G-14	Separator Machine (56-100L/hoar)	Nes	600	(NCB)	Dieta	IDA	255.0	Plasnod Days		0	14	7	7	7	3	67	60 days
								Actual Dates						10.00 410			
DESUDDPEAPER/G-15	Procuratient of Deep	Nes	510	OFM	Project	IDA	225.25	Planted Dates		01/07/20	[4/07/20	21/97/29	28/07/20	4/08/20	1/09/20		1/11/2020
AND DESCRIPTION OF DESCRIPTONO OF DESCRIPTONO OF DESCRIPTONO OF DESCRIPTONO OF DE	Freearr (309-409L)	.805	2.10	(NCB)	Director	ma	312.12	Actual Dates	-	0	14	7	1	7	28	ě.)	60 days
		×.	cal for B			-	5298.05	and the second second					-		-		

অনুমোদিত 52 .

20 ODK

(Md Abdur Rahm) Project Director (Joint Secretary) Phone 02-58154913 Email: Iddp@dh.gov.bd

Appendix III: Field Photos



Training of Research Associates at KIB



FGD with Female Group



FGD with Male Group



Training of Research Associates at KIB



Meeting with DLS Officials and World Bank Team



Key Information Interview with PD

Appendix IV: User Manual Kobo Tool Box

The Kobo Tool Box is an open source platform for conducting the survey in digital module. Newly Recruited Research Associates instructed how they operate the digital platform and conduct the survey. Thus, CEGIS team designed a questionnaire module and user manual for all. The following section will replicate how Kobo Tool box used.

To set up the tools in Kobo Toolbox, type: www.kobotoolbox.org in the

<u>Step 1</u>

To set up the tools in Kobo Toolbox, *type: www.kobotoolbox.org* in the address bar and hit the ENTER button –remember that there is the need for an internet connection. This opens up the Kobotoolbox home page.

🗧 KoBoTonibes (Cara Collection T) 🗶 🕂							¥ -	0 ×
€ → C Ô (kobosocitox.org				-	日白	G 8 =		2 😐 1
🔮 IRF 🚳 CC 🧕 NOC 🤮 DOFDEI 🔮 INCEGT 🧔 SC 🕲 II 💿 W 🟭 RIVE	G G G M & C 📑 C 🚮 C 🗣 T O G Ø	ାରା 🤤 ର ଓ । 🚺 🖉 🖬 🖉 ହିଇଥିଲେ 💿 ରେଖ 🕲 ଖଣ୍ଡଣ	L 🔛 Manilita	per @ Shape 20	0	n 565 o C	1	III Seeding is
B KoBo tooloox			HOME	FEATURES	STGN UP	ABOUT	HELP	JOBS
	GET ST	ARTED						
	Get started with KoBoToolbox now, it's free publicly-available instances of Ko							
	Unlimited Use for Humanitarian Organizations	Researchers, Aid Workers & Everyone Else						
	Provided by UM CICHA Understeid Ruberiseiche Understeid Duta (Schlager Lantenbreit Projector	Presided by notio factors TeStor indemission for Month BGB of Data Rouge Pet Manth Unimited Projects						
	CREATE AN ACCOUNT	CREATE AN ACCOUNT						
	or legin	or login						
	For more information on the difference determine which one is right for you, ple support	ase read our Which Server Should Use?						
	Advanced users can also install KoBoTo machine) using Docker. See our kobo-							

Figure 1: KoboToolbox Home Page

<u>Step 2</u>

In the web page that opens up, enter the necessary details to create an account and click on *CREATE ACCOUNT*. If the account is successfully created, the web page showing ACCOUNT CREATED comes up with an instruction to click the activation link in the email sent to the email address used for creating the account.

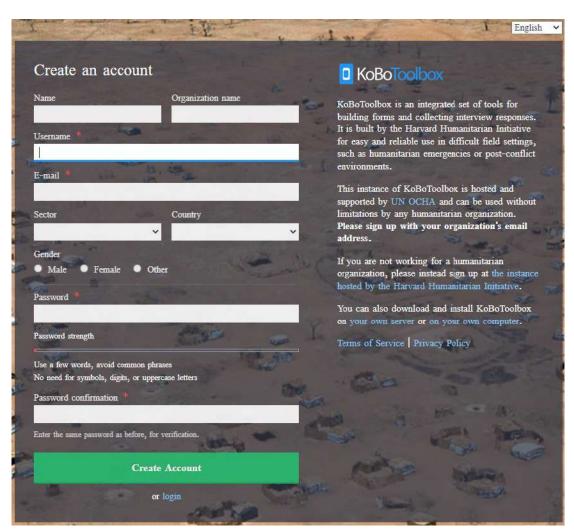


Figure 2: Registration Page



Figure 82: Registration Success

<u>Step 3</u>

On clicking the ACTIVATION LINK a new web page comes up showing the KOBOTOOLBOX interface necessary for CREATING NEW PROJECTS.

λs	earch mail	T T	C) 🔅		F
8			1 of 596 <	> ব	n -	
	Activate your KoBoToolbox Account 🝃 🔤			ē	ß	
٥	support@kobotoolbox.org to me *		12:38 (0 minutes ago) 🔥 🏠	*	:	6
	Thanks for signing up with KoBoToolboxt					e
	Confirming your account will give you access to KoBoToolbox applications. Plea	ase visit the following URL to finish activation of y	our new account.			
	https://kobo.humanilarianresponse.info/accounts/activate/753cd42d4814b6c256	0d52bfa4342eafdf9a4260f				ł
	Your username is: foezahmed					
	Please visit https://community.kobotoolbox.org/ to find information on how to get	et started. There you can also post questions to the	re community (recommended) or to us d	irectly.		
	Best. KoBoToolbox					
	RUENTOUDOX					
	Reply Forward					
	Reply Polward					

Figure 83: Activation Link in the Email

After successful activation, go to login page.

Usem	ame:
cegis	
Passw	ord:
· ···	
42574	Forgot?
	Login
	or create an account

Figure 4: Login Page

A dashboard will appear after successful credential. User can create own project by clicking on New button.

	(oBoToolbox		Q. Search Projects				Č
	NEW Deployed Draft	() () 0	Deployed Name	Shared by	Created	Last Modified	Submissions
	Architred	0	DLSOS-Explanation of CERC-EAP HH Survey Questionnaires for Beneficianes		January 74, 2022	Today # 11:20 AM	3
0 (9) (7)							

Figure5: Dashboard Page

<u>Step 4</u>

After completion of above-mentioned steps, it is necessary to install the KoboCollect App on the android OS mobile device and configure it for collecting data. To do this locate the Google Play mobile app on the android device, click it, search for kobocollect app, select the appropriate result and install the app on the android device.

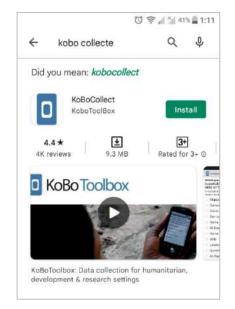


Figure 6: Search on Google Play Store

Now that the KoboCollect app has been installed on the android device, some settings are needed to ensure that data collected from the field and sent from the android device gets stored on the dedicated KoboToolbox server and can be retrieved from there.

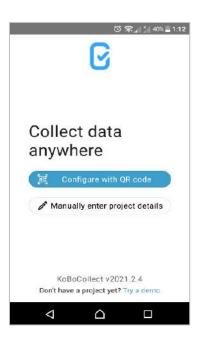


Figure 7: Very First Screen of the Kobo Collect App

On the very first window Configure with QR Code and manually enter project details will appear. Click on second option to configure.

Username cegis Password After you add your configure it in Gen Settings	
After you add your configure it in Gen	
configure it in Gen	
	Cancel Add

Figure8.8: Project Configuration

Enter the published project URL, Username, Password and click on Add button.

<u>Step 5</u>

To connect with survey questionnaire, click on Get Blank Form from dashboard menu. Select a project from list and click on Get Selected button.

전 🗇 🖉 25% 🚊 1:15
kc.humanitarianresponse.info K
Fill Blank Form
Edit Saved Form
Send Finalized Form
View Sent Form
Get Blank Form
Delete Saved Form
KoBoCollect v2021.2.4

Figure.9: App Dashboard

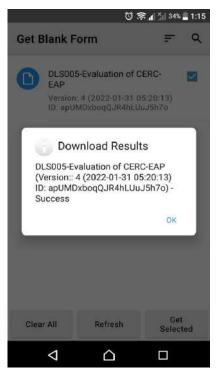
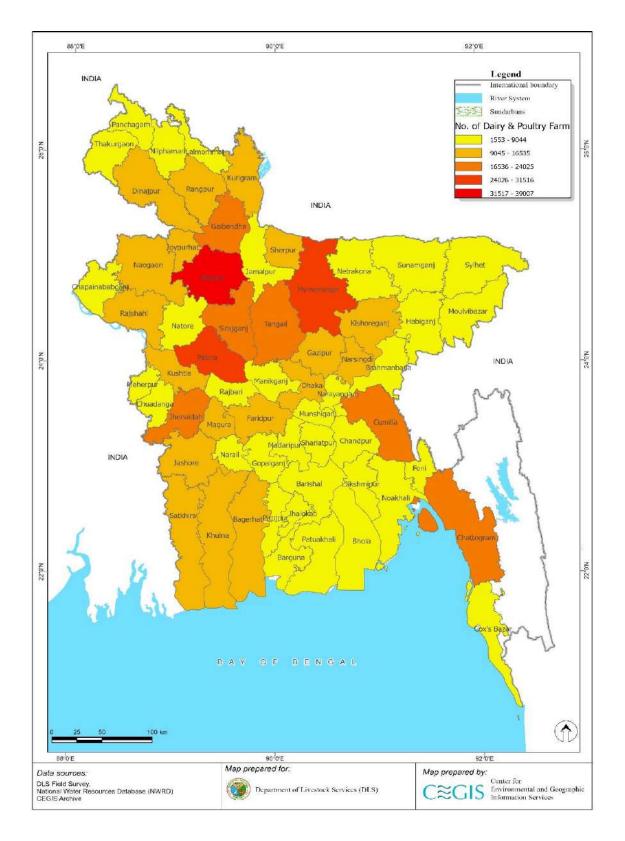
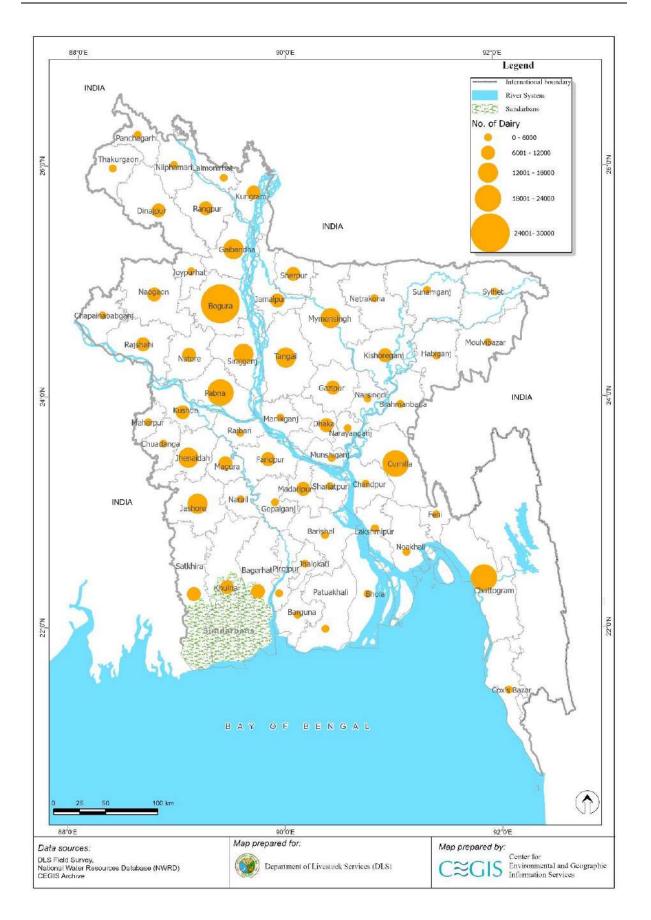
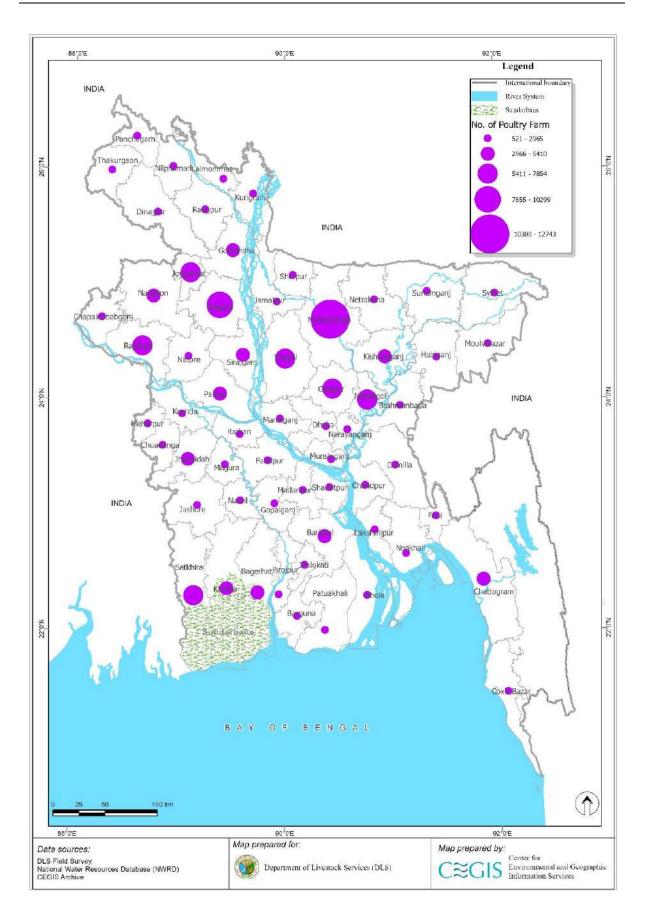


Figure 10: Successful Connection Notification

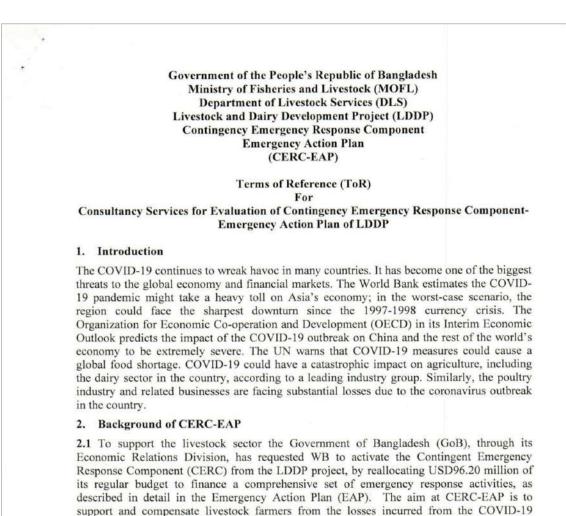


Appendix V: Output Maps on KoBo based data of Department of Livestock Services (DLS)





Appendix VI: Term of Reference (ToR)



2.2 The Department of Livestock Services (DLS) of the Ministry of Fisheries and Livestock (MoFL) is responsible for implementation of the CERC-EAP under LDDP. Within DLS, Project Director (PD) (Joint Secretary) deputed from MoFL is in charge of overseeing project implementation with support from Chief Technical Co-ordinator (CTC), Deputy Project Directors (DPDs) and a number of technical specialists under the Program Management Unit (PMU). In the field Project Implementation Units (PIUs), at the Division level, the Directors with the support from District Livestock Officers (DLOs), Upazila Livestock Officers (ULOs), Livestock Extension Officers (LEOs), Livestock Field Assistants (LFAs) and Livestock Service Providers (LSPs) are responsible for project implementation as well as broader monitoring of CERC-EAP in 466 Upazillas of 61 Districts.

2.3 The CERC was closed on September 8, 2021, therefore PMU has decided to undertake CERC EAP evaluation of: (i) impacts/results achieved; (ii) quality of implementation of process; and (iii) satisfaction of beneficiaries. This consultancy will also assess the challenges encountered to support the beneficiaries, good practices and lessons learned.

3. Objective of the Assignment

Pandemic (see section 4 for detailed activities).

3.1 Overall Objectives

3.1.1 The overall objective of the assignment is to assess the degree to which LDDP CERC component has: (i) achieved impacts/results even if they differ from its first intended objective; (ii) implemented its activities according to design and process established in its different guidelines and implementation manuals (it includes looking at overall quality of implementation); and (iii) met beneficiaries' satisfaction. This overall assessment will lead to the identification of challenges, strengths, lessons and recommendations for potential future emergency activities in the livestock sector implemented by DLS.

3.2 Specific Objectives

The specific objectives of the assignment encompass the following:

- To assess the impact/results of the CERC emergency activities implemented.
- To review actual results against the agreed action plan of the CERC.
- To assess beneficiaries' satisfaction with the project activities (paying particular attention to women beneficiaries). The calculation of the project indicator on beneficiaries' satisfaction will be calculated in collaboration with the PMU.
- To identify critical deviations in CERC-EAP implementation and compliance to key project rules defined for implementation (based on the various guidelines and implementation manuals).
- To identify and analyze factors responsible for such deviations.
- To identify issues and strengths, draw lessons based on the overall assessment, and provide recommendations for future CERC livestock.

4. Activities supported by CERC

The following activities were supported by CERC and will be main area for this assignment:

Activity 1: Livestock COVID-19 related messages to the stakeholders all over the 61 districts (466 Upazilas) of Bangladesh (farmers, processors and consumers etc) reached through print, electronica and social media. Mass media communication: Under this activity the following media messages were conveyed/broad casted in both print and electronic media: (i) Mass awareness that domestic animals and birds do not transmit COVID-19 and informing consumers that livestock product (meat, egg, milk) and animal-source food in general are not a vehicle for COVID-19. Also convey the message that after the COVID-19 virus emerged, the virus has transmitted directly from humans to humans only; there has not been any report on the virus to have gone through animals or birds and infected humans, and other messages deemed appropriate as the knowledge about the pandemic evolves; and (ii) Mass awareness (in both print and electronic media) that protein intake from animal-source food (meat, milk and eggs) increases resilience in humans against any infectious disease, and COVID-19 is not an exception.

Activity 2: All DLS staff involved in CERC-EAP were distributed with surgical masks, surgical hand gloves, antiseptic disinfectant and bleaching powder. Sanitation packages will be provided for DLS officers, Livestock Services Providers (LSPs), Government technicians and all workers involved in the handling and distribution of livestock products under the EAP such as collectors, van drivers, and sales staff. Reducing the risk of COVID-19 in the livestock chain and associated workers would be a foremost priority.)

Activities 3: 61 districts (Sadar Upazila) distributed with Mobile Veterinary Clinics (MVCs): one for each SadarUpazila/potential Upazila. Public veterinary and key animal production services should remain available in the wake of total or partial lockdowns and should be reinforced in the aftermath of the current crisis with the procurement of Mobile

Veterinary Clinics (MVCs) to ensure animal health proximity service capacity from DLS. The procurement of 1 MVC for each District is a minimum figure, i.e. 61 MVCs in total.

Activities 4: Total of 620,000.00 livestock farmers households (HH) (Sonali-poultry-40,000, Broiler Chicken- 80,000, Layer-70,000, Duck-10,000 and Dairy farmers-420,000) to benefit a cash transfer for business continuation. The CERC-EAP proposed to compensate dairy farmers for business continuation. This resulted in cash transfer for reduced revenues and increased operating cost in order to maintain a basic level of milk production and to maintain the productive cattle base for the recovery period. In total, for 420,000 Farm HH an amount of BDT 5,000 was paid per lactating cow up to a maximum of 980,000 dairy cows. In particular, female farmers were targeted as women carry out the bulk of the work at the smallholder dairy farms. In addition, to avoid the time needed to procure feed ingredients centrally and to avoid distribution challenges under locked down conditions, cash transfers were also provided by PMU to selected poultry farmers (Sonali, layers, broiler and duck farmers) for business continuation through bank accounts, e-mobile transfer or B-cash. In total 200,000 HH poultry farmers targeted.

Activities 5: Total 1500 nos Milk Cream Separator Machines (MCSM) with a capacity ranging from 50-500 liter per hour (lph) will be distributed among village milk collection centres/producers' organizations-400 nos (capacity 350-500 lph.), larger dairy farmers-500 nos (capacity 150-200 lph.) and medium; size dairy farmers-600 nos (capacity 50-100 lph.). The EAP proposes to support dairy farmers with different capacities of cream separators (ranging from 50 to 500 lph.) in order to separate the cream from the fresh milk, and to facilitate processing the milk cream (30% fat) into ghee (99.9% fat) or butter (85% fat). Milk cream can only be stored at minus 15°C and therefore freezer capacity will be needed (which is not readily available).

Activities 6: Total 530 Deep freezers with a capacity of 300-500 ltr will be distributed: 1 for each Upazila and/or District Livestock Offices or other relevant offices, as required. To ensure that, also during the COVID-19 crisis, sufficient doses of medicines and vaccines will be available and as such maintain animals in a healthy and productive state, 530 freezers with a capacity of 300-400 ltr will be distributed, 1 for each Upazila Livestock Office (466), 1 for each District Livestock Office (61), 3 for DLS Headquarter and demand based other offices of DLS.

Activities 7: Vehicle Rental to Increase milk and eggs sale. To arrange rental mobile milk and egg selling vehicles so that farmers can use these vehicles to promote community milk and egg sales chain in the towns and cities for home locked consumers. 61 districts and 392 Upazila conducted the activity as result a total of 16,213 vehicles days were used of which 6,271 pick-up days, 7,070 Easy bike days, 370 cool van days, 796 mini truck days and 1,706 days for other items days used (CNG, Auto tempo, auto van, battery van, human holar, Nasimonleguna, mishuk and rickshaw etc.). Average rent per day found 3,343 BDT. A total of 18,213,408 no of eggs sold at the rate of BDT 5.8 for each egg. A total of 1,237,640 no of poultry sold at the rate of BDT 167.55 while a total of 2,682,161 litters milk sold at the rate of 48.63 per litter. A total of 63,552 poultry farmers have been benefitted from this activity while dairy farmers were 22,308. A total of 5,648,462 consumers were benefitted from this activity.

5. Scope of the Assignment

5.1 The Service to be Provided

The CERC-EAP evaluation of process will cover area in 465 Upazillas of 61 Districts. In order to meet the above objectives/scope services of the process assessment/evaluation, services to be provided are the followings but not limited to:

- Review relevant secondary documents as relevant such as project documents, project appraisal document, CERC-EAP Field Manual, semi-annual RF reports, bi-weekly reports and reports of CERC beneficiary satisfaction survey conducted by PMU.
- Propose statistically justified sampling frame including both quantitative and qualitative data collection tools for different component and for assessing beneficiaries' satisfaction.
- Conduct HH surveys to obtain data/information to validate and triangulate regular collection of routine quantitative information related to project implementation
- Conduct discussion in the field with project staff and local implementers.
- Conduct Focus Groups Discussions (FGDs), Key Informant Interview (KII), and Individual Interview including case studies for qualitative information.
- Conduct a national level workshop on finalized evaluation report for disseminating initial findings to all stakeholders including preparing briefing documents.

5.2 Specific scope of the Assignment

5.2.1. The evaluation of process implementation will help understand:

- How well the CERC component has been working, including time for EAP preparation, CERC activation, DA opening and possible waiver requests.
- The extent to which the CERC component has been implemented as designed.
- The extent to which implementation of the various CERC activities was timely compared to actual field needs.
- Whether the CERC component was accessible and acceptable to its target population.

To conduct the evaluation of process, the consultant will review the following:

- Overall design of the CERC taking into account the context at the time.
- Procurement.
- Financial management.
- Project management (it will include comparing the activity planned and actual implementation).
- Monitoring and Evaluation (including use of KoBo Toolbox, data quality, data auditing, etc.).
- Social and Environmental Safeguards.
- Gender.
- Grievances (including beneficiaries' ability to raise issues/grievances on the emergency activities and project ability to resolve timely the issues/grievances)
- Communication to beneficiaries on emergency activities (particularly to women). Clear information on targeting, requirements, transfer value and COVID 19 recommendations. information given to beneficiaries and implementers.
- Process to select beneficiaries.
- Process to ensure women are beneficiaries from the program.
- Beneficiaries matching the eligible criteria.
- Verification of possession and control of eligible stock.
- Cash transferred match beneficiaries' type.
- Cash transferred timeliness.

- Cash transfer amount.
- Process to transfer cash to beneficiaries.
- Process to collect data.
- Project communication on emergency activities
- Project communication on COVID19 to beneficiaries and staff.
- Distribution of milk cream separators and usage.
- Distribution freezers usage of freezers.
- Staff carrying out all the required steps at Upazila level.

5.2.2. The evaluation will assess the **impacts/results** of each emergency activities. It will be important to look at the situation before COVID19 started, when the project started, and at project closure.

The evaluation will pay particular attention to the impact/results of the project on women. The evaluation will answer the following questions but not limited to:

For cash transfer:

- Did the beneficiaries have managed to sustain the size of their stock? By how much? If not, by how much did it decrease? How did the value of farmers herd/ stock evolve? How was the decrease in livestock managed (culling, death (lack of feed, etc.), sold below regular priced, own consumption, exchange in the community against other goods, etc.)?
- Did they manage to continue production? By how much?
- Did they manage to sale their production? By how much?
- How was the cash transfer used by beneficiaries and contribute to their livelihood/life?
- Which goods or services did beneficiaries spent the transferred cash on?
- Was there any diversification of production? In what products?

For Mass Media Communication:

- Did the awareness of beneficiaries towards (i) transmission of COVID 19 and on (ii) protein intake benefits changed? (it includes exploring the proportion of beneficiaries (disaggregated by gender) interviewed having improved awareness and understanding). Did it change beneficiaries' behaviours? How?

For Distribution of Sanitation Packages:

- Were the sanitation packages used by DLS officers, Livestock Services Providers (LSPs), Government technicians and all workers involved in the handling and distribution of livestock products under the EAP such as collectors, van drivers, and sales staff?

For Milk cream separators:

- Did beneficiaries manage to transform fresh milk? (Specify if it is milk cream, ghee and butter (volume if available) What was it used for? (sale, own consumption, etc, specify volume if available)

For Deep Freezers:

- What was the volume of medicines and vaccines stored and used thanks to the deep freezers?

For Vehicle Rental towards and Milk, Meat and Eggs Sale:

- What is the volume of milk, meat, and eggs that was sold through this activity?

- Did farm beneficiaries manage to restore their access to market through this activity?
- Did farm beneficiaries get access to a better market than previously?

- What was the impact of this activity for Farmers (and how many, disaggregated by gender), and for consumers (how many, disaggregated by gender)?

Expected Output/Deliverables

- Inception report included detail methodology.
- Propose statistically justified sampling frame for satisfaction survey agreed by PMU.
- Propose sample for survey of beneficiaries to assess impacts and results.
- Detail CERC-EAP process evaluation/assessment/satisfaction survey work plan
- Draft process evaluation/impact assessment survey report included with sufficient number of case studies/FGD/KII reports
- Conduct workshop at national level on assessment findings including workshop report
- Final Report with all necessary annexure and data base.
- All reports are to be submitted in hard/softcopy (SPSS/Access, Word, Excel, PDF and Power Point as appropriate).

7. Time Frame

The duration of the consultancy would be for three (3) months. It can be extended based on PMU's need and firm's performance.

Summary of Deliverables and timetable for CERC-EAP Evaluation

Tasks	Time frame	No. of Copies / Format of
A. Inception report (a) Inception report including sampling frame and detail methodologies with work plan of data collection tools. (b) Report should contain overall evaluation survey design, survey conduction (HH survey, individual interview, FGD, KII etc.) and training plan of the enumerators	2 weeks (After the signing of contract)	Hard Copy: 1(one) original and 2(two) copies; Soft copy: in CD/DVD/Pen drives.
B. 1 st Progress Report outlining survey methodology, UP sampling list, questionnaires and a narrative describing difficulties (if any) in pre-testing at field level.	3 weeks from signing of contract.	Hard Copy: 1(one) original and 2(two) copies; Soft copy: in CD/DVD/Pen drives.

C. 2 nd progress report including Field survey data collection from household/unit, data entry, screening, editing, entry, analysis and submit & present. Draft Report for comments from PMU and WB with detailed dataset and an analysis of findings. This will include a data set readable by the advanced/latest statistical package of quality and reliability and a short report with the complete set of frequencies for all variables. The report should highlight the environmental and social safeguard compliance issues Conduct CERC-EAP process evaluation	9 weeks (After submission of inception report)	Hard Copy: 1(one) original and 2(two) copies Soft copy: in CD/DVD/Pen drives.
Conduct sample satisfaction survey		
Conduct FGDs and KII with beneficiaries, PD, CTC, DPDs, Director, DLOs, ULOs who are involve in implementation of CERC-EAP		
Conduction of case studies		
D. Submission of draft report included all above		
<i>E. National Workshop</i> for disseminating initial lessons and findings to all stakeholders including workshop report	Within 10 weeks after contract signing	Hard Copy: 1(one) original and 2(two) copies Soft copy: in CD/DVD/Per drives.
F. Final Report incorporating the comments received from PMU, WB and national workshop.	Within 2 weeks after the workshop	

8. Language

- All reports including annexes and supporting documents shall be submitted in English.
- Questionnaires use in field survey will be translated into Bengali.

9. Methodology

The overall methodology will include: (i) a secondary sources analysis/desk review of project data and reports (including Kobo Toolbox); (ii) interviews with PMU/PIUs and implementers at different levels; (iii) survey of sample of beneficiaries for satisfaction survey; (iv) conduct focus groups of direct beneficiaries (if COVID 19 allows). The overall evaluation will have to also pay particular attention to women. The methodology will be further discussed with the consultant at the start of the assignment to determine the content and sampling.

9.1 Secondary Sources Analysis/Desk Review

- PMU semi-annual report project monitoring report
- Relevant government entities' reports or record or files or ministerial order if any
- WB mission reports
- CERC-EAP result framework report
- CERC Bi-weekly report
- CERC-EAP Field Manual
- M&E Guidelines
- Any other relevant documents and project reports
- The consulting firm will have access to data in Kobo Toolbox

- List of beneficiaries with geo-localization.
- Others.
- All data generated under CERC-EAP
- CERC-EAP Survey tools for beneficiaries' satisfaction developed by PMU
- Results of CERC-EAP beneficiary satisfaction survey

9.2 Methodology in Detail

A combination of quantitative and qualitative methods will be applied in order to study the impact of the CERC EAP in-depth. According to the specified terms of reference, the Consultant is expected to carry out the following: EAP-CERC overall evaluation will cover activities like household surveys including satisfaction, FGD, KII, Case study, etc. All draft tools (questionnaire for household survey, guidelines for FGD and KII, checklist etc.) should be submitted along with technical proposal and assessment/survey design. A satisfaction survey tool prepared the PMU with the support from WB team and administered during internal satisfaction study. The consultant will adopt this tool with improvement agreed by PMU. All these will be reviewed and agreed by PMU.

- Develop, in close association with PMU of LDDP and the Bank team, survey
 methodologies and instrument for carrying out surveys of the beneficiaries/
 citizen/satisfaction and results indicators would be the basis for the development of all
 assessment instruments, with the aim to assess the extent to which the CERC-EAP
 activities have achieved its intended objectives.
- Develop a sampling framework for with greater emphasis placed on getting in-depth quality information and getting the sample right from a qualitative viewpoint to ensure that the full spectrum of 15 categories of beneficiaries covered. The samples should be in such a way that it takes account of all types of regional variations.
- Develop and administer a set of well-designed and pre-tested questionnaires to interview beneficiaries/citizens, Upazila beneficiaries' selection committee.
- Share survey methodology and sample size of all stakeholders with PMU, LDDP and WB. Analyze the information gathered using both quantitative and qualitative techniques, with focus on measurable, objective data via various statistical models suitable for the analysis of attitudes and opinions of beneficiaries and stakeholders. Qualitative techniques will be used to deepen the analysis of subjective attitudes and opinions.

9.3 Focus Group Discussion (FGD)

Detail discussions will be held with the beneficiaries through FGD in order to gather qualitative data/information. FGD groups should be homogeneous in nature to promote the involvement of all participants. Sufficient number of FGD will be proposed in different component/group by consultant approved by PMU.

9.4 Key Informant Interview (KII)

Data/information will be collected through Key Informant Interview from different stakeholders: The consultant will select KII in consultation with PMU for KII for in-depth interview. PMU will facilitate the organization of meetings for the consultant both at national and field level.

9.5 Case Studies:

Sufficient number of case studies (both success and unsuccessful case can be written) shall be prepared under different categories on issues/individual or any thematic areas so that to

disseminate initial lessons to all stakeholders. The number of case study will be determined by PMU.

9.6 Database System Development

Database system will be developed for data regarding impact assessment. The consultancy organization should hand over the database (MS Access/Excel and SPSS) to the client (PMU, LDDP) after the completion of the evaluation along with the final evaluation report.

9.7 Workshop

The consultant will conduct a national workshop for disseminating initial lessons findings to all stakeholders including preparing briefing documents for raising issues and challenges faced. The duration of workshop will be maximum one day and the approximate number of participants 'will be determined by PMU.

Present the draft report of the CERC-EAP Process Evaluation - in a national workshop. Submit the Final Reports incorporating the feedback from the workshop to PMU, LDDP.

10. Requirements of Key Personnel

10.1 Team Leader

The Team Leader of the assignment shall have extensive previous experience in monitoring and evaluation of large-scale program/projects particularly in Livestock sector/Socio-economic HH survey designing and implementing.

10.2 Consulting Staff and input

In order to carry out CERC-EAP Process Evaluation/impact assessment following a full team of technical and support staff will be required.

SI. No.	Position	Nos. (Not less than)	Man Month	Required (Qualifications / Experience
1.	Team Leader cum Senior Social Scientist	1	3	Qualifica tion	 Senior Social Scientist with at least Masters' degree in economics/ Sociology/ Human & Gender/ Project Management/ Social welfare/ Demography or other relevant social sciences

SI. No.	Position	Nos. (Not less than)	Man Month	Required Qualifications / Experience				
				Experien ce	- At least 15 years of practical experiences in designing and leading socio-economic and household surveys. Experienced in conducting evaluation of impact and process, household survey and, focus groups particularly in the context of evaluation of development projects in agriculture/livestock sector.			
2.	Project Evaluation Specialist	1	2.5	Qualifica tion	 Social Scientist with at least Masters level degree in economics/ Sociology/ Social welfare/ Demography/Human & Gender or relevant social sciences 			
				Experien ce	 At least 10 years of practical experiences in designing and leading project mid-term and end project evaluation particularly in the agriculture/livestock sector. Experienced in conducting process evaluation survey particularly evaluation of development projects in agriculture/livestock sector Strong report writing both English and Bengali -Some background/knowledge of gender in the livestock sector. 			
 MIS Specialist Statistician/ Econometrician/ Data Managemen 		1	3	Qualifica tion	 Masters degree or equivalent in Economics/ Statistics/ Mathematics/ Computer Science. 			
	& Analysis Specialist			Experien ce	 At least 10 years practical experience in advanced statistical techniques, including familiarity with/ experience in dealing with large scale cross sectional and panel datasets. Experience in web-based survey designing through mobile apps like GEMS Kobo Toolbox 			

SI. No. 4.	Position Research Associates	Nos. (Not less than) 20	Man Month 2.5	Required Qualifications / Experience	
				Qualifica tion	 Masters degree in Economics/ Demography/ Statistics/ other relevant social sciences.
			2	Experien ce	 At least 5 years of experience in designing large scale socio- economic surveys/FGD/KII and case study with some experience in the agriculture/livestock sector. At least 5 years' experience in development project or social research with gender experience.
5.	Data analyst/ICT Associate	1	2.5		 Masters degree or equivalent in economics/ statistics/ mathematics/ computer science. At least 3 years of experience in handling large scale socio- economic surveys/FGD/KII and case study data Experience in web-based survey designing through mobile apps like GEMS Kobo Toolbox

12. Institutional Arrangements (Co-ordination, Supervision and Reporting)

PMU and its relevant consultants will co-ordinate overall management of the survey operation in association with the contracted firm/Organization. The PMU will make a visit plan, based on the firm's/Individuals detail Activity Schedule.

For effective implementation of the CERC EAP Process and impact Evaluation, the firm/organization will keep liaison with the PMU, maintain their Activity Schedule and submit required reports, in stipulated time.

The DLS field officials might provide all possible supports necessary for successful field operation of said package. Consulting firm could use outsourced manpower of LDDP working all over the project areas, if needed.

The PMU will provide relevant available documents for conducting CERC-EAP evaluation. The PMU will ensure necessary governmental and other approvals, if necessary.

Appendix V: Comments and Response Matrix