





LOCAL GOVERNMENT INITIATIVE ON CLIMATE CHANGE (LOGIC) MPTF OFFICE GENERIC ANNUAL PROGRAMME¹ NARRATIVE PROGRESS REPORT

REPORTING PERIOD: 1 JANUARY – 31 DECEMBER 2020

Programme Title & Project Number

- **Programme Title:** Local Government Initiative on Climate Change (LoGIC)
- Project ID/Award ID in ATLAS:

UNDP 00085984

UNCDF 00101390 (EU),

00102142 (SIDA)

• MPTF Office Project Reference Number:³ 00103800

Participating Organization(s)

United Nations Development Programme (UNDP) United Nations Capital Development Fund (UNCDF)

Programme/Project Cost (US\$)			
Total approved Prodoc Budget:	20,000,000		
MPTF/JP Total Contribution:	UNDP 5,372,083		
MP1F/JP Total Contribution:	UNCDF 4,530,060		
	TOTAL 9,902,144		
Agency Core Contribution:	UNDP 200,000		
	UNCDF 200,000		
Government Contribution	GoB 729,888		
Other Contribution -EU	UNDP 4,486,996		
	UNCDF 4,480,973		
	TOTAL 8,967,969		
TOTAL Project Budget in USD:	20,000,000		

Programme Assessment/Review/Mid-Term Eval.

Assessment/Review - if applicable please attach

■ Yes □ No Date: 30 March 2020 (attached)

Mid-Term Evaluation Report-if applicable please attach

☐ Yes ■ No Date: *dd.mm*.yyyy

Country, Locality(s), Priority Area(s) / Strategic Results²

Country/Region: Bangladesh

Priority area/ strategic results: By 2020, relevant state institutions, together with their respective partners, enhance effective management of natural and man-made environment focusing on improved sustainability and increased resilience of vulnerable individuals and groups.

Implementing Partners

Local Government Division, Ministry of Local Government, Rural Development and Co-operatives

Government, Rurai Development and Co-operatives			
Programme Duration			
Overall Duration (months)	57		
Start Date ⁴ (dd.mm.yyyy)	October 2016		
Original End Date ⁵ (dd.mm.yyyy)	30 June 2020		
Current End date ⁶ (dd.mm.yyyy)	30 June 2021		

Report Submitted By

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¹ The term "programme" is used for programmes, joint programmes and projects.

² Strategic Results, as formulated in the Strategic UN Planning Framework (e.g. UNDAF) or project document;

³ The MPTF Office Project Reference Number is the same number as the one on the Notification message. It is also referred to as "Project ID" on the project's factsheet page the MPTF Office GATEWAY

⁴ The start date is the date of the first transfer of the funds from the MPTF Office as Administrative Agent. Transfer date is available on the MPTF Office

⁵ As per approval of the original project document by the relevant decision-making body/Steering Committee.

⁶ If there has been an extension, then the revised, approved end date should be reflected here. If there has been no extension approved, then the current end date is the same as the original end date. The end date is the same as the operational closure date which is when all activities for which a Participating Organization is responsible under an approved MPTF / JP have been completed. As per the MOU, agencies are to notify the MPTF Office when a programme completes its operational activities.

Acronyms and Abbreviations

ATM Adaptation Tracking and Measuring

AWP Annual Work Plan

BMD Bangladesh Meteorological Department CALO Climate Adaptive Livelihood Options

CCA Climate Change Adaptation CFF Climate Fiscal Framework

CMF Community Mobilization Facilitator
CRA Community Risk Assessments
CRF Community Resilience Fund
CSO Civil Society Organization

DDLG Deputy Director Local Government

DEM Digital Elevation Model

DMC Disaster Management Committee
DPP Development Project Proforma

DRR Disaster Risk Reduction

EU European Union FYP Five Year Plan GCF Green Climate Fund

GED General Economics Division GoB Government of Bangladesh

HHRRAP Household Risk Reduction Action Plan

IRS Institute of Remote Sensing

LCFF Local Climate Fiscal Framework

LDP Local Development Plan
LGD Local Government Division
LGI Local Government Institution

LGSP Local Government Strengthening Project
LoGIC Local Government Initiative on Climate change

M&E Monitoring and Evaluation
MIS Management Information System

MoDMR Ministry of Disaster Management and Relief

MOU Memorandum of Understanding

MPTF Multi Partner Trust Fund

NIM National Implementation Modality

NPD National Project Director

PBCRG Performance Based Climate Resilience Grants

PIC Project Implementation Committee
PMU Programme Management Unit
PPE Personal Protective Equipment
PSC Project Steering Committee

RCP Representative Concentration Pathways

RRAP Risk Reduction Action Plan

SIDA Swedish International Development Cooperation Agency

TBD To Be Determined

UNCDF United Nations Capital Development Fund

UNDAF United Nations Development Assistance Framework

UNDP United Nations Development Programme

UNO Upazila Nirbahi Officer

UP Union Parishad

Executive Summary

The time for activation is what one will call the year 2020 for the Local Government Initiative on Climate Change (LoGIC) project. In the preceding years, LoGIC, through its community facilitators, made people aware of climate change adaptation, identified the most vulnerable households, assembled the households' women into small groups, and made them ready for using the LoGIC grant called Climate Resilience Fund (CRF) in a climate-adaptive livelihood. At the same time, LoGIC mobilized respective Union Parishads (UPs) to invest in climate-resilient ventures; and allocated money from the Performance Based Climate Resilience Grant (PBCRG). But the year began by presenting the world a pandemic, COVID-19, that shattered life across the globe. Life was under threat; survival was uncertain. People locked themselves inside their walls in a state of inertia. Meanwhile, cyclone Amphan and floods hit some of the project areas in May and August, making the situation only worse.

However, LoGIC strategically overcame the challenge by adopting a different operative modality. Works done online for several months, field-visits carried out being appropriately protected with Personal Protective Equipment (PPE) and maintaining social distancing. A survey by using telephone interviews assessed the damage, progress in adaptation and key lessons learned from the adaptation efforts and COVID-19 and cyclone.

As the activities resumed, LoGIC changed its approach—a blended bottom-up approach with a top-up. The European Union (EU) delegation team in March 2020, in their evaluation report, suggested the inclusion of a modest top-up process, which is a breakthrough for LoGIC. The top-up approach is likely to sensitize the local government officials on the need for climate change adaptation.

Like the previous year, LoGIC continued with capacity-building training for beneficiaries and UPs while also arranging orientation on climate change and LoGIC activities for government officials and staff. Starting from the launching of the project till December 2020, 17,000 beneficiaries received training in Climate Adaptive Livelihood Options (CALO), and 2,269 elected representatives and secretaries of Union Parishad (UP) received capacity development training.

LoGIC enhanced the financial inclusion of 16,716 most vulnerable women (98 percent of a total 17,000 CRF beneficiaries), who never thought of having access to the formal banking system. The women CRF beneficiaries have individual bank accounts. Sixty-one percent of the women beneficiaries made at least one transaction in the bank in the reporting period, and 22 percent of beneficiaries started personal savings, which are significant steps towards economic empowerment.

Another breakthrough was introducing Climate Adaptive Insurance Coverage (Sheep Insurance) to help the grassroots communities improve the resilience and safeguarding of vulnerable poor women. The insurance service covered the most susceptible sheep farming risk and marginalized 4,634 households in the targeted communities. LoGIC is the pioneer in the country to introduce Climate Adaptive Insurance.

In 2020, Climate Change Adaptation (CCA) actions were integrated and streamlined through UP schemes. In the reporting period, 72 UPs planned 839 CCA-linked schemes which are three percent more than the last year, and out of total, LoGIC supported only 261 projects through PBCRG. The focus of the reporting year was Nature-based CCA solutions. In the previous year, 75 percent of the PBCRG funded schemes were on infrastructure or construction work. Forty-seven percent of the UP CCA-linked schemes are for most climate-vulnerable poor; thirty-two percent schemes for marginalized groups; thirty-five percent focus on climate change adaptation needs of vulnerable women and girls, and one percent schemes targeted climate change adaptation needs of climate refugee households. UPs mobilized funds from other sources to implement the CCA schemes. Mobilizing funds indicates the UPs are more aware and educated about climate change issues. LoGIC helped 51 UPs (71 percent of all project-targeted UPs) to mobilize additional resources from different sources for climate resilience schemes in 2020, which indicated a 7 percent increase from 2019.

In 2020, due to pandemics, not all the UPs could organize the open budget meeting. Only a few UPs could organize the meetings before COVID-19 induced lockdown. However, 100 percent of climate adaptation schemes have been identified in the Wardshava. Sixty percent PBCRG schemes are being implemented to benefit gender-sensitive communities, and 71 percent schemes to help poor and marginalized communities.

LoGIC produced several knowledge products, which include but are not limited to the *Climate Analysis Report of LoGIC Working Area* and *Risk Atlas* for LoGIC areas. These will help people understand climate change's nature, forecast future situations, and alert people about the possible risks they need for planning. In 2020, Risk Atlas was prepared for 6 Upazilas, which amounts 30 percent of the target.

As part of advocacy, an inter-ministerial dialogue titled *Policy Dialogue on Local Government Finance and Climate Change* was held on 21 October 2020. The discussion covered the issue of reforming financing and allocation policy. Fund allocation depends on the population's size, which barred most vulnerable people from receiving the grant if they live in a smaller population. The dialogue proposed to formulate a 'Vulnerability Index' to assess the field's needs. The index will help in the planning, monitoring, and budgeting system of the UPs. Also, the emphasis was given to formulating resource mobilization policy for the local level that will strengthen the Local Government Institution (LGIs). LoGIC is currently preparing a policy brief on the dialogue.

The year 2020 was a breakthrough for communication and visualization. LoGIC finalized its communication strategy while adopted digital communication tools like Facebook etc. More and more people across the community are viewing the LoGIC Facebook page and are commenting on the posts.

The reporting year 2020 was threatening, but it could not snatch away the feat from the project. LoGIC overcame both climatic and non-climatic threats, but the human power geared by strategic thinking made the year making progress and accomplishing most of the tasks. The project has developed and activated a local financing model/system to deliver climate finance to the most vulnerable people with lower transaction costs and higher adaptation benefits.

As of now, LoGIC has successfully proceeded two stages—mobilization and identification of beneficiaries and activating the system of disbursing the grants to the beneficiaries and UPs in 2020.

Now, time demands collaboration with organizations with similar goals and with the local CSOs and private sectors. It is also warranted to develop the value chain. Using popular radios as communication channels will strengthen people's awareness of climate change adaptation.

Looking forward, LoGIC sees a community optimally aware of climate change adaptation and equipped with the necessary means to sustain on their own. Meanwhile, it is expected that the government will be ready with the required policy and enough funds for climate finance.

Purpose

I. Objectives

The UNDAF and Country Programme Document (CPD) for Bangladesh set one of the outcomes to be "By 2020, relevant state institutions, together with their respective partners, enhance effective management of natural and man-made environment focusing on improved sustainability and increased resilience of vulnerable individuals and groups." In alignment with this outcome, the overall objective of the LoGIC is "Improved and inclusive local level planning, and increased funding for community based CCA-DRR solutions, supported by a strengthened financing mechanism".

The three key output level results envisaged to be achieved by LoGIC are:

- Strengthened capacity of local governments, households and other local stakeholders to develop local plans that integrate CCA-DRR solutions.
- Established financing mechanism to fund local governments and communities for implementing climate change adaptation measures.
- Experience and evidence inform and contribute to further improvements in policies and practices for UPs and national systems in relation to CCA.

II. Results

a) Key Achievements:

Blending top-up with bottom-up approach

Adaptation is primarily viewed as a bottom-up approach where beneficiaries are encouraged to realize and identify their climate change problems and adaptation solutions are undertaken in their local context. The LoGIC was and still is no exception to that. However, activities that require scientific background, research, and policy support benefit from the top-up approach. The EU delegation team in March 2020, in their evaluation report, suggested the inclusion of a modest top-up approach, which is a breakthrough for LoGIC. The top-up process is likely to sensitize the local government officials on the need for climate change adaptation.

Decentralized local level adaptation planning and local level networking and institutionalization of adaptation learning.

LoGIC supported the 72 UPs to organize 210 Wardshava (i.e., community-level meeting chaired by UP elected members) to update climate risk-informed annual local development plans (LDP) and Risk Reduction Action Plan (RRAP) based on the Community Risk Assessments (CRA) findings. LoGIC prepared 'Wardshava Facilitation Guidelines' and oriented 71 Union Parishad for practical LDP discussions at the ward level. The Wardshava conducted through a meeting with citizens of the Union. A total of 16,932 people participated in the Wardshava to develop the risk integrated development plans.

Performance audit of 71 Union Parishads for FY 2018-19 was completed by an external firm. Due to COVID-19 pandemic, the audit process was disrupted. The performance audit also built the capacity of UPs on record keeping, fiduciary risk control, and procurement process and compliance issues.

LoGIC enhanced the financial inclusion of the most vulnerable 16,716 women (98% of a total 17,000), who never thought of having access to the formal banking system. The women CRF beneficiaries have individual bank accounts. During the reporting period, 61% of the women beneficiaries made at least one transaction in the bank, and 22% of CRF beneficiaries started personal savings, which are significant steps to empowerment.

LoGIC organized 19 Upazila meetings for making a linkage between 17,000 CRF beneficiaries and govt's extension departments (fisheries, agriculture, livestock) for ensuring support services to climate-adaptive livelihood implementation.

Mobilization and Capacity building

For LoGIC, 2020 was the year of activation basing on the identification and mobilization of previous years. LoGIC completed the selection of 17,000 CRF beneficiaries in 2019; the beneficiaries formed 1,066 groups to implement the Climate Adaptive Livelihood Options (CALO). The year 2020 continued further mobilization towards capacity-building training of different stakeholders, networking, institutionalization while community facilitators kept meeting vulnerable household groups in courtyard meetings.

In 2020, climate-vulnerable 9,072 CRF beneficiaries were trained on climate adaptive livelihood options, and 4,636 CRF beneficiaries received 2nd round training on CALO.

The LoGIC project provided training in 72 Union Parishads (UPs) on CRF & PBCRG manuals and financial management, including audit & accounts, finance & establishment, fiduciary risk, taxation, governance, and other related issues.

Efficient and effective delivery of climate finance to the locally lead adaptation

People living in disaster-prone areas have developed strategies to cope, from storing food and water to constructing platforms to shelter livestock during extreme weather to evacuation plans and, increasingly, migration. None of these are sustainable solutions unless they get the finance necessary for adjusting their livelihood. LoGIC's prime target is to provide climate finance to the vulnerable households for engaging themselves in appropriate livelihood while supporting local governments, i.e., UPs in climate-resilient infrastructure building.

• CRF: Finance for Climate Adaptive Livelihood Option

Through their respective groups, beneficiaries receive seed money from the LoGIC through Community Resilient Fund (CRF). In 2020, USD 1.28 million were directly e-transferred to the individual bank accounts of 9,072 beneficiaries from the CRF.

The project was drawing on evidence-based knowledge that focused on common regrets options—using the best available climate science and weather forecasting tools and using previously tested and successfully demonstrated climate-adaptive livelihood options (CALO).

In 2020, 100% of the CRF beneficiaries started their climate-adaptive livelihoods. And, 16% of them gained benefits from their CALO. Livelihood initiatives of CRF beneficiaries were affected differently by climatic hazards and non-climatic hazards (COVID-19). These have resulted in disruption of the livelihood of 3% of beneficiaries. This experience clicked the beneficiaries' thinking, and they were more cautious and prudent to update their existing business plan.

CRF is not merely a fund; it is also **technical assistance** that trains beneficiaries in their selected options and provides a seasonal calendar to aware of the year-long suitability of different Climate Adaptive Livelihood Options.

As it comes to the secured and profitable use of CRF, one cannot bypass the risk of failing a venture due to natural, political and other reasons. Thus, the issue of **climate-adaptive insurance** of CALO has come to the forefront. LoGIC designed and introduced Climate Adaptive Insurance Coverage (Sheep Insurance) to help the grassroots communities improve the resilience and safeguarding of vulnerable poor women. The insurance service covered the most susceptible sheep farming risk and marginalized 4,634 households in the targeted communities. LoGIC is the pioneer in the country to introduce Climate Adaptive Insurance.

• Performance Based Climate Resilient Grant (PBCRG)

Local government, that is UPs, receive approximately USD 150 million every year from the national budget. Additionally, more funds are channeled down to the UPs from different development projects. Besides these, UP has income from its Own Source Revenue (OSR) collecting from land tax, issuance of different types of certificates, registration, etc. So far, UPs are spending money on infrastructure development without addressing climate change. LoGIC introduced the Performance-Based Climate Resilient Grant (PBCRG) to complement UP's expenditures, create an incentive for local governments to adapt to mainstream climate change adaptation in development plans and budgets.

In 2020, Climate Change Adaptation (CCA) actions were integrated and streamlined through UP schemes. This year, 72 UPs planned 839 CCA linked schemes which are 3% more than last year, and out of total, LoGIC supported only 261 projects through PBCRG. Nature-based CCA solutions were focused on this year. In the previous year, 75% of the PBCRG funded schemes were on infrastructure or construction work.

In 2020, 47% of the UP CCA-linked schemes were for most climate-vulnerable poor, 32% schemes for marginalized groups, 35% for climate change adaptation needs of vulnerable women and girls, and 1% schemes targeted climate change adaptation needs of climate refugee households. The CCA-linked plans budget was not so large; on average, it was USD 7,125 of

each. LoGIC helped 51 UPs (71% of all project-targeted UPs) to mobilize additional resources from different sources for climate resilience schemes in 2020, which indicated a 7% increase from 2019.

Climate change rationality of PBCRG funded schemes:

- Climate specific: Interventions or schemes that focus specifically and almost exclusively
 on addressing climate change impacts. For example, embankment protection from high
 tide and tidal surge caused by climate change-induced frequent cyclones.
- Climate-smart: Approaches that pursue development goals but whose actions need to be modified, changed, or adjusted to account for climate change e.g. 'climate proofing. Most of the PBCRG schemes implemented belong to this category. A good number of roads were repaired and elevated so that local people can go to the cyclone shelter center quickly during climate change-induced natural disasters. Culverts were constructed to solve waterlogging, and trees were planted for expanding green coverage. Basements of tube-well and toilets were elevated to make them usable during floods.
- Climate-strategic: This group consists of interventions/schemes that are not particularly distinct from development business as usual but may be of greater priority because of climate change. Many rainwaters harvesting systems have been set up in coastal districts that will benefit people affected by salinity intrusion in groundwater caused by sea-level rise.
- Climate change adaptation and awareness building: These interventions include efforts to educate, train and promote behavior change concerning climate change. With PBCRG support, a good number of schemes were implemented for training, input provision, and demonstration support to promote climate adaptive fish variety or fish culture methods and hydroponics.
- Climate complementary: Actions or interventions which are not specific to climate change but loosely relate to underlying drivers of climate vulnerability. For example, fishermen working in a group of fishing boats were provided with early warning equipment and safety gear to protect them from climate change-induced frequent cyclones.

Integration of CCA in UP planning has significantly increased compared to the previous year, which is significant progress in achieving the LoGIC objective- to establish a financial mechanism for climate-resilient action at the local level. However, LoGIC still needs to focus on facilitating more CCA-linked schemes in the UP annual plan.

As experienced in 2020, climate finance has brought *two significant changes*; both are related to mindset changing.

1. Vulnerable people, especially left-behind women in the most disadvantaged areas, can now think out of the box—they feel knowledgeable about an appropriate livelihood for which they received the grant and technical assistance from LoGIC. They know how to design a business plan, which has become a capital that they can use on a broader horizon. They are more confident and organized into groups so that they can in the future expand their livelihood activities from their funds.

2. The mindset of UPs is transforming from a century-old stereotypical infrastructure building to climate-adaptive ventures. Money is now allocated in schemes to combat climate change. This is a remarkable change in the way the idea of public goods is redefined. Even a climate-resilient toilet construction is now a public good, which used to be a private matter in the conventional eyes.

Fostering Innovation

An innovative mind is the most vital power to jump over all the puddles. Innovation is inventing some techniques and also a strategy to adopt something new for extended advantage. LoGIC channels climate finance to innovative ventures as part of being climate adaptive and climateresilient. The following experiences are some of the striking ventures that were undertaken.

<u>SMART Boat:</u> A Smart-Boat Scheme was inaugurated in Barguna district. This smart-boat scheme was funded by PBCRG allocation considering the fishing community's requirements; about 100 imaginative boat schemes were adopted under LoGIC project. This scheme's main objective is to provide early warning to about 2,000 fishers and 100 fishing boat owners with preventive measures and provide emergency equipment. This snowball effect helped raise awareness and encouragement among other general fishermen and owners.

<u>Climate tolerant agriculture:</u> 300 farmers are cultivating about 300 acres of land in Bagerhat district through the Climate Adaptive Irrigation System. LoGIC facilitated an irrigation canal that flows through a vast harvesting field, changing many farmers' lives. Another innovative scheme is a demo aquaculture project in a climate tolerant aquaculture system. The project is cultivating cauliflower, eggplant, tomato, cabbage, and other *rabi* season crops. The nutrients are mixed in the water which flows through the pipes are the vitality of these vegetables.

The LoGIC beneficiaries are introduced to grass productions through hydroponics. They are provided with spot learning sessions and demonstrations on the technology by community mobilization facilitators. This technology is climate-resilient since it requires no land or soil for production. Through this, the community no longer faces livelihood hardships due to climate vulnerability. This new initiative enables beneficiaries in Bagerhat, Khulna, and Kurigram to be empowered and resilient.

<u>Purifying rainwater:</u> LoGIC's Performance Based Climate Resilience Grants channeled additional resources to local governments and support their locally identified projects with technical support and capacity building. With funds delivered to local governments, rainwater is captured and stored in giant tanks, providing an abundant and disease-free freshwater source that improves residents' health.

Promoting adaptation and combating disasters

As the nation was stricken by the fear and trauma induced by COVID-19, the LoGIC areas faced other disasters in May by a cyclone named **Amphan** and riverine and flash **flood** in August. Amphan hit the coastal districts, while floods affected both coastal districts and the north-east district of Sunamganj. All these devasted the resilience process by damaging crops, roads, and houses. LoGIC wasted no days in helping the community to overcome the devastations. LoGIC worked closely with the District and Upazila administration to manage safe shelter, food, and emergency medicine.

For battling the COVID-19, LoGIC adopted an alternative operational system; half of the year, all meetings in the field were held online. An awareness guide for the community was developed and distributed. To continue training, LoGIC introduced e-learning materials. The year 2020 was cursed with disasters that made the community work together and invest in the collective power. This consequently will help them strengthen the collaborative effort in climate change adaptation.

Advocacy: inter-ministerial meeting

Sensitizing government officials to climate change adaptation across District and Upazila level by engaging them in various meetings, workshops and training is an ongoing activity of LoGIC. Nevertheless, it is also essential, in fact vital, to confirm inter-ministerial support for climate finance for the different ministries handle different sources of money. There is a need for coordination among all these ministries, for which a policy needs to be formulated. Aligned with this need, an inter-ministerial dialogue titled Policy Dialogue on Local Government Finance and Climate Change was held on 21 October, 2020.

The policy dialogue had two agenda items: (1) Revisiting allocation rationale from the perspective of climate change, (2) Consolidation of climate-informed planning and budgeting at the local level. The discussion covered the reforming of financing and allocation policy. Fund allocation depends on the size of the population, which barred most vulnerable people from receiving the grant if they live in a smaller population. Considering this, it was proposed to formulate a 'Vulnerability Index' to assess the needs at the field level. This will help in the planning, monitoring, and budgeting system of the UPs. LoGIC is currently preparing a policy brief on the dialogue.

Knowing and Sharing Risks Together

The year 2000 is distinctively marked by knowledge production in mapping the climate now and in the future. Besides studies on damage assessment of Amphan and floods, a light touch survey on adaptation status of the climate-vulnerable people in Cyclone Amphan, Floods (Tidal, Flash and Riverine), and COVID-19 risk context called *Kemon Achen* (How are you), LoGIC produced two knowledge products—Climate Analysis Report and Hazard Map.

'Kemon Achen' was a telephone-mediated survey to understand the immediate impact of COVID-19, cyclone Amphan and Floods on the health, income, livelihood, education and social

condition of the CRF beneficiaries, in order to help to determine the most urgent needs, identify community priorities, and give voice to affected communities.

The Institute of Remote Sensing (IRS) of Jahangirnagar University prepared the Climate Analysis Report of the LoGIC Working Area. By using historical data collected from the Bangladesh Meteorological Department (BMD), satellite and reanalysis data, this document gives an in-depth analysis of the past and future climate of the 7 LoGIC districts. It forecasts the future level of rainfall, and minimum and maximum



temperature under different climate change scenarios called Representative Concentration Pathways (RCP). This is a grand work to pragmatically plan the future and make the best possible climate adaptation. Beyond LoGIC, any further climate research and policy and development intervention are likely to draw from this knowledge product.

Another milestone in this direction is producing **Risk Atlas** for the LoGIC areas. Risk Atlas shows hazards and risks in the locality. This will alert people about the possible risks, which they will need while planning. In 2020, Atlas was prepared for 6 Upazilas, which amounts 30 percent of the targeted Upazilas.

b) Key challenges and mitigation measures:

The year had climatic and non-climatic challenges, which are spelled out below:

- Survival became a question as COVID-19 spread its paw. The country declared lockdown; all activities took a halt, and people saw a wall around them. The situation halted all project works for few months. However, LoGIC strategically responded to the challenge. Like many, it operated on a virtual space, disseminated COVID-19 protection awareness messages to its beneficiaries, provided field staff with PPE. Thus, activities were resumed.
- Cyclone Amphan hit the LoGIC areas accompanied by floods resulting in significant damage to livelihood means, schemes, and infrastructure. LoGIC in orchestration with other government and non-government organizations combat the disaster.
- As the value chain is yet to develop, some beneficiaries still struggle to market their produced products. Develop and implement a value chain with concrete backward and forward linkage is a necessity.
- Changing mindset or human behavior takes time. Therefore, it is no wonder that some of the UP members are still governed by stereotypical thinking as it comes to investing in climateresilient ventures. But the situation is fast changing.
- As of now, there is no government policy for climate finance; different ministries have different fashions of allocation without having an integrated effort. This is a challenge for the UPs to confidently allocate money for climate-resilient ventures.
- It is still challenging to see how beneficiaries who received CRF and invested in CALO will sustain towards own-finance for climate-adaptive livelihood in the future. Many of them have experienced damage due to climatic and non-climatic reasons in the first year, which may have demoralized some of them. Extended motivation is necessary for overcoming fear.

c) Lessons Learned:

- The greatest lesson learned was the uncertainty of non-climatic disaster as is the case with COVID-19. We are used to cyclones, floods, and similar natural calamities; but never thought of a pandemic that would halt the life and living across the globe.
- COVID-19 helped us realize the human potential of overcoming challenges. We soon
 developed an alternative operational strategy, which helped us accomplish the majority of the
 activities planned for 2020.

- We have experienced the power of collective effort, as it was the case to combat Amphan and floods.
- The awareness activities and organized collective actions can influence the local government's expenditure and investment in public goods. This reflects in the fact that 100 percent of the climate adaptation schemes were identified in the ward assembly. Also, 71 percent of schemes were used for the benefit of the marginalized community.
- The diffusion of advanced technology for improved production brings benefits to the community, as was the case for the women cultivating sunflower using advanced cultivation methods.
- Blending the top-up method to the bottom-up approach is beneficial, especially for innovation and its diffusion among the populous not privileged with high-science knowledge.

d) Way Forward

LoGIC has developed and activated a local financing model/system to deliver climate finance to the most vulnerable people with lower transaction costs and higher adaptation benefits. The EU evaluation and the Bangladesh Government's mid-term evaluation in 2020 have appraised the system. Also, the inter-ministerial meeting expressed support to mainstream the model. As of now, LoGIC has successfully proceeded. Now that LoGIC is expanding its beneficiaries, which it will draw on its experience. It is also time for capacity building on climate awareness and adaptation action; and capacity building on operational and accountability processes. At this stage, LoGIC emphasizes the following developments:

- **Policy advocacy:** For mainstreaming the LoGIC model, it is essential to strengthening advocacy at the central government level. This will involve producing knowledge content like evidence-based policy briefs to pursue the policymakers in formulating required policies. Persuasion and advocacy benefit from networking. Besides, inter-ministerial coordination is also a requirement.
- Awareness-building: Behavioral change is time-consuming. Therefore, LoGIC will use digital media and local media to constantly channeling messages targeting climate change adaptation. Community radio is a strong medium well-connected to the locality. Several community radios operate in the LoGIC areas, which can still do the awareness-building work once the project ends.
- Coordination with similar organizations: Several organizations are concentrating on climate-resilience and mitigation work. It is time to coordinate and integrate with those organizations and local CSOs.
- Value Chain: A concrete value-chain needs to develop to support local entrepreneurship with backward and forward linkage.
- **Integrating private sectors:** While developing a value-chain, it is also an organic need to include private sectors in strengthening climate-adaptive livelihood.
- Taxing the privileged: Like Scandinavia and few other north-European countries, the privileged citizens can pay green tax. Collected tax will contribute to climate finance. The justification for taxing them is they are the ones who negatively contribute to climate

change. A recent Dhaka University and Bus Rapid Transit (BRT) study identified vehicles as 50 percent responsible for polluting and warming the air in Bangladesh. LoGIC may initiate a dialogue in this direction.

• Capacity-building on accountability: As the project nears an end, it is important to develop the community's capacity for accountability. At this stage, LoGIC will fine-tune its capacity development trainings and add necessary new ones.

Looking forward, LoGIC sees a community optimally aware of climate change adaptation and equipped with necessary means to sustain on their own. Meanwhile, it is expected that the government will be ready with necessary policy and enough funds for climate finance.

e) Risk and Issue Management:

Risk Management

Sl.	Project Risk	Likelihood	Mitigation Measure
		(High/ Moderate/ Low)	
1	Fiduciary risks: Fiduciary risks of repurposing the CRF by the project beneficiaries to meet COVID-19, cyclone, and other emergency responses.	High	Safeguarding climate adaptive livelihood options were implemented through close monitoring.
2	Non-transformative resilience: Risk of non-transformative resilience of CRF beneficiaries due to the fact that a year-round calendar for seasonal and continuous adaptation of their livelihoods is available.	Moderate	A yearlong district-wise climate adaptive livelihood seasonal calendar was developed and skill transfer to the CRF beneficiaries was ensured.
3	Long-term impact of COVID-19: Risk of continuation and M&E of project interventions under the current COVID-19 situation.	Moderate	The project ensured project preparedness and modeling of interventions considering the pandemic situation. Alternative ways of data collection to assess the project progress are being sought.
4	Administrative process: Risk of further project delay due to slow administrative processes in approval of revised DPP and other related documents	Moderate	The project discussed the issue with the Project Implementation Committee (PIC) and DPs to expedite the administrative process.

Issue Management

Sl.	Project Issue	Remedial Action
1	COVID-19 Pandemic: Due to COVID-19 crisis, all	LoGIC developed COVID-19
	field level activities (e.g. follow-up support to CRF	Business Continuation Plan and risk
	beneficiaries, training of Union Parishads, community-	matrix. The annual project activities
	level awareness activities, adaptation technology	were re-scheduled and e-learning
	demonstration, field monitoring, staff coordination	materials are prepared to continue the
	meeting, etc.) were suspended, which will have a	activities.

	negative impact on project delivery.		
2	Vulnerable livelihood of CRF beneficiaries: 74% of	The frontline staff had been provided	
	the CRF beneficiaries were severely impacted by	PPE so that they can provide	
	COVID-19. They faced challenges in crops,	technical support as needed and	
	vegetables, fish, poultry and livestock	ensure follow-up of the climate	
	production/rearing in the lockdown situation. Wage	adaptive livelihood options initiated	
	income was affected due to movement restriction,	by beneficiaries.	
	decrease of wage opportunities, and reduction of daily		
	wage rate.		
3	Food crisis: 90% of the CRF beneficiaries reported	Safeguarding climate adaptive	
	that their food consumption decreased in terms of the	livelihood options were	
	amount of food intake, number of times in a day, and	implemented.	
	diversity of meal.		
4	Limited coverage of government social safety net:	National Project Director (NPD) of	
	82% LoGIC beneficiaries were remaining out of the	LoGIC provided the list of the project	
	government social safety net and did not receive any	beneficiaries to District	
	assistance.	Administrations to ensure govt. social	
		safety net support to the beneficiaries.	
5	Delay in UP performance assessment: The UP	The field staff communicated with	
	performance audit by the auditor firm through physical	Union Parishads through phone and	
	verification was impacted by COVID-19. This	online and collected soft copies of	
	situation also affects the second-round of PBCRG	necessary documents and evidences.	
	allocation and schemes selection.	The auditor firm completed	
		assessments, based on which	
		allocation of PBCRG was disbursed.	

f) Partnership

A partner NGO with experience of working with Union Parishads had been hired by UNDP under Responsible Party Agreement to implement community-level activities of the LoGIC project (the partnership discontinued from July 2020). The partner NGO was mainly responsible for capacity development of Union Parishads and beneficiaries' households. The partner NGO, Helvetas Swiss Intercooperation, comprised of seven (7) project officers at the district level and 142 Community Mobilization Facilitators (CMF) at Union level to ensure timely and quality implementation of the deliverables.

LoGIC also engaged the Institute of Remote Sensing (IRS) of Jahangirnagar University to do the scientific modelling (Digital elevation) and analysis of risk and vulnerabilities of LoGIC project areas (7 Districts) based on secondary data.

Monitoring & Evaluation

In the COVID-19 induced lockdown situation when all physical movements of project staff were fully suspended, some alternative ways were initiated by the project to continue monitoring activities.

■ The *Kemon Achen* (How are you?) survey of LoGIC Project was conducted through telephonic interviews with beneficiaries in April and May 2020. The information collected from the survey was documented online using a data screen. The survey data helped in project monitoring and follow-up.

- Field staffs were guided over phone, texts in messenger group, emails and online meetings in messenger/WhatsApp for better understanding of data collection. The front-line staffs were provided with PPE and Tabs. Tabs were being used for data collection including photos. These helped the project to continue monitoring of regular project activities during the COVID-19 pandemic.
- The project used the virtual monitoring system i.e. video calling through Skype or messenger for community-level activities monitoring. The monitoring information was shared in virtual meetings where project stakeholders like Deputy Director Local Government (DDLG), Upazila Nirbahi Officer (UNO), Chairman, UP Secretary and LoGIC-PMU attended.

The trainings on Adaptation Tracking and Measuring (ATM) and MIS software for Community Mobilization Facilitator (CMF) were organized in 7 project Districts.

g) Cross-cutting issues

LoGIC project has special focus on vulnerability and adaptive capacity to climate change that are gendered and consequently to ensure the local development planning process is integrated and strengthened. The project adopted an inclusive approach for all vulnerable and marginalized communities. Also given additional emphasis on women and girls for all the components of the project especially, gender-sensitive and inclusive CRF beneficiary selection and priority on women's issue to select the PBCRG funded UP scheme selection.

Typically, the CRF group includes widows, divorced and/or single women, abandoned women and women whose husbands have migrated away in search of employment. 98% of women member of the households have been identified as primary participant for the CRF and therefore, 16,660 women are the primary beneficiaries of CRF.

In this year, a total of 261 UP schemes were implemented with the support of PBCRG. 72% of the schemes are gender-responsive.

LoGIC project developed gender-sensitive and inclusive M&E framework to ensure gender disaggregated data collection and measure the progress on gender and inclusiveness in project interventions and results.

h) Qualitative assessment

During the reporting period, the PMU, District Staffs and Partner NGO staffs visited UP and community to support the ongoing activities. Activity-wise monitoring checklists were used to assess the progress of the implementation of PBCRG schemes and the quality of the capacity development on livelihood options for the CRF beneficiaries.

LoGIC has made partnership with some organizations/institutions to ensure timely delivery of project interventions and quality achievements of the project results.

i) LoGIC Exposure in Media

Communication took a phenomenal expansion in 2020 as LoGIC made its presence on social media, i.e., on Facebook. A month-long Facebook campaign was conducted, and by the end of 2000, the LoGIC Facebook reached more than a thousand viewers. Status orienting LoGIC activities and success are regularly posted in Bengali and English. Thus, an inclusive discourse around climate change adaptation is growing up.

LoGIC continued publishing the quarterly newsletter. A flyer detailing LoGIC articulated in communicative English was produced. Most importantly, in 2020, LoGIC prepared its communication strategy to methodically run

an effective communication with two purposes: organizing beneficiaries and stakeholders with climate change adaptation awareness and managing the impression of the project to outsiders.

Communication and visualization activities are spelled out. Here it is important to mention that in 2020, LoGIC strengthened its conventional communications of mobilizing beneficiaries by using traditional communication channels as it has been the









case since the inception of the project, while expanded over to the virtual front. The year was the year of digitizing communication and visualization.

III) Indicator Based Performance Assessment:

	Achieved Indicator Targets	Reasons for Variance with Planned Target	Source of Verification
Outcome 17 Indicator: % of 72 UPs that have incorporated climate change adaptation actions into their development plans (LDP). Baseline: 13.9% (Jan, 2018) Planned Annual Target: 100%	- 100% of the targeted 72 UPs have incorporated climate change adaptation into their annual development plans (LDP) through developing Risk Reduction Action Plan (RRAP)	NA	Annual Progress Report 2020
Indicator: % of 72 UP plans that have addressed the adaptation needs and priorities of vulnerable women and girls. Baseline: 6.9% (Jan, 2018) Planned Annual Target: 40%	 100% of UPs have prioritized adaptation needs and priorities of vulnerable women and girls. However, 98% of the CRF schemes are gender responsive and 72% of the PBCRG are gender responsive. 	NA	Annual Progress Report 2020
Indicator: % of UP that have established and are implementing the Climate Resilience Financing system. Baseline: 0% (Jan, 2018) Planned Annual Target: 50%	- 51% of the UP established and implemented the Climate Resilience Financing system through PBCRG	NA	Annual Progress Report 2020
Indicator: % of 27 UPs that are allocating other resources to implementing CCA linked schemes. Baseline: 31.9% (Jan, 2018) Planned Annual Target: 60%	51% of target UPs that are allocating other funding resources to implementing CCA linked community schemes.	NA	Annual Progress Report 2020
Output 1 Indicator (1): % of women, poor and marginalized people that participate in the formulation of	Progress : Household level risk reduction action plan (RRAP) was updated with the participation of 99% of the 17,000 CRF beneficiaries (98% women, 1% representative of marginal group, 2% Persons with Disability-PWD representatives, 1% indigenous	NA	Annual Progress Report 2020

⁷ Note: Outcomes, outputs, indicators and targets should be **as outlined in the Project Document** so that you report on your **actual achievements against planned targets**. Add rows as required for Outcome 2, 3 etc.

climate risk integrated LDPs	people and 29% marginal groups).		
Baseline: 1.3% (Reference: LoGIC	Analysis: LoGIC completed the selection of 17,000 CRF		
Baseline Study 2018)	beneficiaries in 2019, the beneficiaries formed 1,066 groups to		
Annual Target: 40%	implement the Climate Adaptive Livelihood Options (CALO).		
Illinuu Turger. 4070	In 2020, all the CRF groups updated their business plan (climate		
	risk integrated local development plan) to change or include new		
	CALO. Project staff facilitated orientation sessions on business		
	plan. According to the updated business plan it is found that in		
	Bagerhat and Barguna the CRF beneficiaries selected diversified		
	options and in Sunamganj and Kurigram it is reverse.		
	In 2020, 71 UPs updated the risk reduction action plan (RRAP)		
	and approved in their monthly general meeting. The RRAPs were		
	also integrated in the 5-years plan of UP. LoGIC contracted the		
	Institute of Remote Sensing (IRS) of Jahangirnagar University		
	who prepared district wise climate analysis report for the project		
	area. Based on the climate prediction report, longer-term thinking		
	and nature-based solution the UP level RRAPs were updated.		
Indicator (2): % of target UPs that	Progress: 100% of targeted 72 UPs integrated climate change		
integrate CCA solutions into LDPs	adaptation (CCA) solutions into the local development plans		
to support the most vulnerable	(LDP).		
households.	Analysis: In 2020, CCA actions are integrated and streamlined		
Baseline: 31.9% (Reference: LoGIC			
Baseline Study 2018)	schemes which is 3% more than last year and out of total LoGIC		
Annual Target: 100%	supported only 261 schemes through PBCRG. UPs mobilized		
	fund from other sources to implement the CCA schemes. (what		Annual
	are those sources and to what percent?) This indicate the UPs are	NA	Progress
	more aware and educated about the climate change issues.	1471	Report 2020
	In 2020, the out of total planned 261 CCA linked schemes, 33%		Report 2020
	Agriculture Small Irrigation, 54% Fisheries, 17% Health &		
	Sanitation, 85% Safe Water Supply, 8% Plantation, 39%		
	Infrastructure/Constructions, 22% Others (Market, Awareness,		
	etc.) and 3% Early Warning System to reduce climate risk at		
	community level. Nature based CCA solutions were focused in		
	this year. In last year 75% of the PBCRG funded schemes were		
	infrastructures or construction works.		

	In 2020, 47% of the UP CCA linked schemes are for most climate vulnerable poor, 32% schemes for marginalized groups, 35% are focusing climate change adaptation needs of vulnerable women and girls and 1% schemes targeted climate change adaptation needs of climate refugee households. The budget of the CCA linked schemes were not bigger, on an average it was Taka 6.5 lac [USD 7,125] of each.		
Indicator (1): % of 17,000 vulnerable households (women, poor and marginalized) who benefit from CCA finance. Baseline: 10% (National) Annual Target: 50%	Progress: 16% of CRF beneficiary households gained benefit from implementation of their climate adaptive livelihood options (CALO). Analysis: In 2020, 100% of the selected CRF beneficiaries started their climate adaptive livelihood options (CALO). 2890 beneficiaries (17% of 17,000) completed 1st cycle of their selected CALO and 94% of them gained benefits from their CALO though 72% of the CRF beneficiaries have been severely affected by COVID-19, 56% were impacted by Cyclone Amphan in coastal Districts- occurred in May 2020, 51% beneficiaries from coastal area reported affecting by tidal flood severely when 21% got affected by riverine flood. Flash flood affected 21% beneficiaries of Sunamganj. Livelihood initiatives of CRF beneficiaries were affected in different extent by both the climatic hazards and non-climatic hazards (Covid-19). Data shows that except Bhola, 100% beneficiaries have started their CALO. Total 23 types of CALO were selected by the beneficiaries which is highest number in Bagerhat and Barguna, lowest in Sunamganj and Kurigram. 17% beneficiaries completed the 1st cycle of their livelihoods and 94% of them gained benefits from the CALO. The 6% who lost their capital money due to mainly the COvid-19, cyclone Amphan and floods. Covid-19 was the key factor in 2020. Till September, 14% CRF beneficiaries can't start their livelihood due to different climatic hazards and Covid-19. 6% were impeded by cyclone Amphan, 4% beneficiaries cannot start because of tidal flood, initiative was	NA	Annual Progress Report 2020

	also couldn't be started owing to riverine flood (1%) & flash		
	flood (6%). 25% CRF beneficiaries even want to change the		
	pathway of resilient livelihoods.		
	Among the most susceptible people (indigenous people, Person		
	with disability-PWDs and marginal group) indigenous		
	beneficiaries were affected by all stressors except flash flood.		
	They didn't get any benefit from livelihood initiative. Among the		
	marginal groups, 32% got minimum (less than 15%) benefit from		
	livelihood initiatives.		
Indicator (2): % of 72 UPs that secure	Progress: 100% of 72 UPs have secured PBCRG funding to		
funding to support CCA linked schemes	support CCA linked schemes based on their performance.		
based on their performance. *Baseline: 0% (Reference: LoGIC)	Analysis: There were six (6) minimum conditions for UPs to be		
Baseline Study 2018)	eligible for the PBCRG. Accordingly, in 2020 an indicative		
Annual Target: 80%	allocation was given to 71 UPs for selected 261 schemes. 72 UPs		
	prepared 261 CCA linked schemes based on that allocation and		
	received the PBCRG money. UP performance in CCA linked		
	scheme implementation was considered to define the UP-wise		
	PBCRG allocation.		
	Data shows that in FY 2018-19 schemes on infrastructures or		
	construction was 159 (75% of total) but in 2019-20 it is reduced		Annual
	to 39 schemes only. Safe water supply related schemes number	NA	Progress
	has been increased 16% (37 to 85). In last year 44 schemes were	1471	Report 2020
	planned in the same ward with CRF support but in 2020 the		rtoport 2020
	schemes number was increased to 89 schemes. This change will strengthen the commentary role of PBCRG and CRF support in		
	local level climate change adaptation.		
	Data shows that Union Parishads are more informed and		
	sensitized about the climate change. In FY 2019-20 it is found		
	that budget for climate resilient schemes has been increased 1%		
	than last year (2018-19). Also, the resource mobilization from		
	different sources like LGSP, ADP, OSR etc. and for climate		
	resilient schemes it is 8% more than last year. These are		
	significant progress to achieve the LoGIC objective- to establish		
	a financial mechanism for climate resilient action at local level.		

	At the same time, LoGIC need to focus on facilitating more CCA linked schemes in UP annual plan.		
Indicator (3): % of Open Budget sessions in 72 UPs that discussed CCA linked expenditure. Baseline: 6.9% (Reference: LoGIC Baseline Survey 2018) Annual Target: 80%	CCA linked expenditure. Analysis: According the UP Act-2009, all Union Parishads are	NA	Annual Progress Report 2020
Output 3 Indicator (1):The extent to which National Adaptation Plan (NAP) and 7th Five Year Plan (7FYP) integrate financing for local adaptation. Baseline: 0 (No) (Reference: LoGIC Baseline Study 2018) Annual Target: Yes (Scale 1-10)	GCF for Bangladesh. General Economics Division (GED) is formulating the 8 th FYP. Therefore, lessons of the LoGIC need to	NA	Annual Progress Report 2020
Indicator (2): The extent to which local climate financing framework is integrated into the national Climate Financing Framework. Baseline: 0 (No) (Reference: LoGIC Baseline Study 2018) Annual Target: Yes (Scale 1-10)	IBFCR (UNDP funded project implemented by Finance Ministry) working on to develop a Climate Financing Framework	NA	Annual Progress Report 2020

Success stories:

SUNFLOWER A Rainbow in the cloudy sky of climate change

A gentle breeze touched the tender yellow sunflowers. A team of thirteen people, seven women and six men, was working hard to collect the grown seeds of sunflowers. Their smiling faces were no reminder of their recent sufferings, just like the emerging sunshine obliviates the rainy clouds of the sky.

Dhanshagar is a small union beside the Sundarbans with most of the people being farmers. Some of them are fishermen, some are day laborers who work on other people's farms, and some of them are sharecroppers. Reoccurrence of natural disasters and



unfavorable environmental phenomenon like cyclones, tidal floods and salinity of land have impaired smooth production of crops, and thus have brought havoc on the livelihoods of these people. The above mentioned thirteen people were no exception.

This group was selected as the Community Resilience Fund (CRF) beneficiary of the LoGIC project, implemented by the Local Government Division, while being supported by UNDP, UNCDF, EU and SIDA. In accordance with the aim of the project, this group of thirteen aimed to stabilize their livelihood by farming in a climate-resilient manner, but this process was certainly not easy.

Due to the lack of individual solvency and assets, these thirteen decided to form a group to bring their efforts and finances together, as their miseries due to climate change were not easy to overcome. The group regularly communicated with the project employees, who supported them in forming group policies and structuring regulations for the adaptation plans. Thus, rather than being in solitary insecurity, with group discussions, they could eventually come up with a climate adaptive livelihood idea of cultivating Sunflower at a medium scale. Sunflower matures faster than other cash crops, and provides higher yield, therefore it was a logical choice for them. They received training on sunflower cultivation from the Upazila Agriculture Extension Department.

After training was accomplished, the group was about to start their first ever cultivation of sunflowers, to realize their dream of redemption from the spiral of poverty. People affiliated with the project continued to accompany and support them. In the meantime, the project grants also came as a boost, as every beneficiary received grant amount of Taka 29,480 in their individual bank accounts. The collective grant for that group of thirteen stood Taka 3,83,340.

Though the group was ready to start farming, time was running out for them as it was already early cultivation season. Like many other landless farmers in the union, they had to rely on lease agreements with landowners to procure a healthy piece of land suitable for sunflower cultivation. Typical leasing agreements lasted between one to five years, However, in this union, due to the comparatively more number of farmers looking for such lease agreements, most good lands were already being leased by January. With still waiting on the approval to use the project grants they received, the group was getting anxious to secure a good lease agreement and was communicating with project facilitators on a regular basis.

As time was running out with delay in approval from the project authority, the team members became adamant to move ahead with their own finances. They were sure of the grant money; they trusted the project and invested all they had. They took lease of 1.5 acres of land for 3 years, with a total cost of around Taka 1,12,500. However, with their own money, they could gather only Taka 47,500. They could mobilize the remaining cost through other means like borrowing from neighbors, local retailers and Upazila Agriculture office. Fortunately, the community came together to support this time sensitive venture of the group, and a relationship of mutual confidence developed among all these stakeholders. The Union Parishad also came forward to help them, and the group received 15 kgs of high-grade salt-tolerant sunflower seeds and 150 kgs of fertilizers including carriage as agriculture aid from the Union Parishad. Moreover, Agriculture department provided all supports needed with the facilitation of the project.

Now that the group secured a farming land and other prerequisites, the cultivation finally began. Every member of the group was performing their prescheduled duties and responsibilities according to plan. As days were passing by, the crops started to grow, approval for using the project grants finally came, and they were able to use the money. The situation started to look assuring and promising for them. And then suddenly COVID-19 pandemic broke through, bringing new challenges. Due to the pandemic, all the institutions of the country as well as communities went into lockdown mode. Heavy disruption in banking systems interrupted the group from withdrawing grant money necessary for farming. However, by this time the group was resilient enough not to give up, and they continued nurturing the sunflower with hard work in the field.

"Through LoGIC, the vulnerable families of this area are now progressing towards improved agricultural practices and economic development. I am happy to be involved with this project from training these beneficiaries till this development. We will extend all support from Agriculture office to ensure better crops"

- Soumitra Sarkar, Upazila Agriculture Officer, Sharankhola,Bagerhat.

"The support from LoGIC and advice from the Agriculture Officer contributed to pour success and this is expected to continue".

- Momtaj Begam, CRF Group Leader

Eventually, ardent efforts of the group paid off, and the time came when the seeds turned into fruits, the sunflower crop was ready for harvest. However, the presence of the covid-19 pandemic raised the difficulty in storing the crop. Nevertheless, the help of the project facilitators, the team was able to store the crops following all sorts of safety measures. The yellows felt a bit of relief. The next step was to sell the crops into the market, but again due to the pandemic emergency, the market chain was disrupted, and they were on the verge to losing another battle which would reap them off the income. But persistence always pays off. The team leader consulted the UP Chairperson and the Upazila Agriculture officer. The Upazila Agriculture Officer agreed to purchase the crops at a fair price on behalf of the local government while also letting every team member keep 40 kgs of the sunflower seeds so that they could grind the seeds into sunflower oil for their own consumption. The price was set to Taka 32.50 per kg and the projected volume of production of sunflower seed for this year is 1600 kgs. The cost of preparing the land for cultivation was Taka 20,000. After keeping 40 kgs of seeds for each of the 13 persons, the group will profit Taka 32,000 by selling the rest of the seeds. In the rest of the year, the group will grow more crops in their land, and pay off the dues. This would enable them to expand Sunflower cultivation on bigger scale. With their own capital and increased confidence regarding sunflower cultivation, including experience and understanding of how to overcome the challenges during production, processing and marketing, the group can only be expected to be more successful in future seasons. Thus, the first step of adaptation, which comprises of building confidence on new crop/technology/means is accomplished.

The cultivation season for sunflower is short; roughly only about three months from March to May, but the short period certainly did not weaken their determination. For the first time in their lives, they have a glimpse of hope to push aside poverty, with the power of yellow sunshine in the form of sunflowers. They

are now developing a year-round business plan for the group so that they can ensure optimal use of their fund received from the project and if successful, it will enable them to even take loan from market and move towards with larger scales of farming. Next three months they will be cultivating saline tolerant rice variety of BR 52 or BR 49 with a confidence for success based on the Sunflower. In the long run, it would have helped them not only to switch from unsustainable livelihoods due to climate change to a more stable, climate resilient adaptation. The environmental problems caused by climate change may continue to cast shadows on the livelihood of rural people all over the world, but this story of the people of Dhansagar Union tells us that we can adapt to the adversities of nature, and certainly with consistent planning we can raise a rainbow of hope in the cloudy sky of despair.