Project Progress Report

"Unveiling the Nexus of Climate Change Vulnerability due to Riverbank Erosion, Economic Loss and Damage, and Local Adaptation Barriers: A Pathway to Empowering Capacity Building for Resilient Futures for Sustainability in Gaibandha, Rangpur, Bangladesh"

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Youth Fellow 2023
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IUB
Independent University,
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Sweden
Sverige

ICCCAD
International Centre for
Climate Change and
Development

Project info

Briefly describe your project (100 words)

It's a capacity building program among riverbank erosion prone vulnerable people of Bangladesh. This program may help to understand the socio-economic losses and damages of vulnerable household groups. Regarding this program we can measure the actual economic impact of this natural calamity. This study also helps to find out the actual problem to take the local adaptation measures and assess the all-possible local adaptation strategies to best fit for their copping process. This program will also help to enhance the knowledge of local vulnerable people and also contribute to minimize the impacts of this natural calamities.

Objectives of the Project

Write down your project objectives in bullets
- Socio-economic loss and damage analysis.
- Assess the food security status of the vulnerable.
- Identification of main adaptations and barriers.

- Provide adequate support to the most vulnerable groups to take relevant adaptive measures

The CAP-RES project has three objectives as follows:
Objective 1: Create enabling environment and foster individuals to enhance their knowledge of climate change issues and develop their problem-solving skills
Objective 2: Generate factual evidence from local practices to scale up at the global level.
Objective 3: Improve institutional efficiency and effectiveness in decision-making and putting into practice in climate intervention

Based on these above objectives which one is more relevant to your project? How your project activities achieved this objective? (Maximum 200 words)

According to the CAP-RES project objectives this program is more relevant to their objective 1 which is to "Create enabling environment and foster individuals to enhance their knowledge of climate change issues and develop their problem-solving skills". This program is designed to help the vulnerable people to enhance their climate knowledge through capacity building training program and the problem-solving skills through practical settings. We are aimed to assess the actual socio-economic loss and damages of that study area and local adaptation strategies so that we could enable the people to understand the severity of these effects and help to enhance their capacity to take the better adaptation strategies regarding this issue. We hope that our targeted group of individuals will help to build the capacity of the other people in their villages working as a catalyst for achieving the CAP-RES objectives through this capacity building program.

Team Composition

Write down name and position, who are solely involved in this project.

Team Member	Designation	Institution	Contact
Umma Salma	Youth Fellow 2023	ICCCAD	01521497249
Dr Farjana Raihan	Professor	Shahjalal University of Science and Technology	01712207882
Monir Uddin Ahmed	Assistant professor	Shahjalal University of Science and Technology	01712673224
Habiba	Under graduate student	Govt. A.H College	01521529910
Md. Aminul Haque Pintu	Govt. service Holder	Ministry of Health and Family Welfare	01711412982
Rudra	College Student	Govt. Shah Sultan College	01312171784
Hasina Khatun	Govt. service Holder	Ministry of Health and Family Welfare	01955716012

Location

Mention the Project areas

For conducting the field survey, the Saghatta Upazilla and Fulchari Upazilla of the Gaibandha district have been selected, as they symbolize the most riverbank erosion-affected riparian environments in Bangladesh. The location is about 179 km north of Dhaka, the capital of Bangladesh. Data will be collected from riverine villages, namely; Gobindi Uttarpara, South Pepulia, East Tengrakandi, West Deluabari, Uttarpara, Galna, Adarshapar.
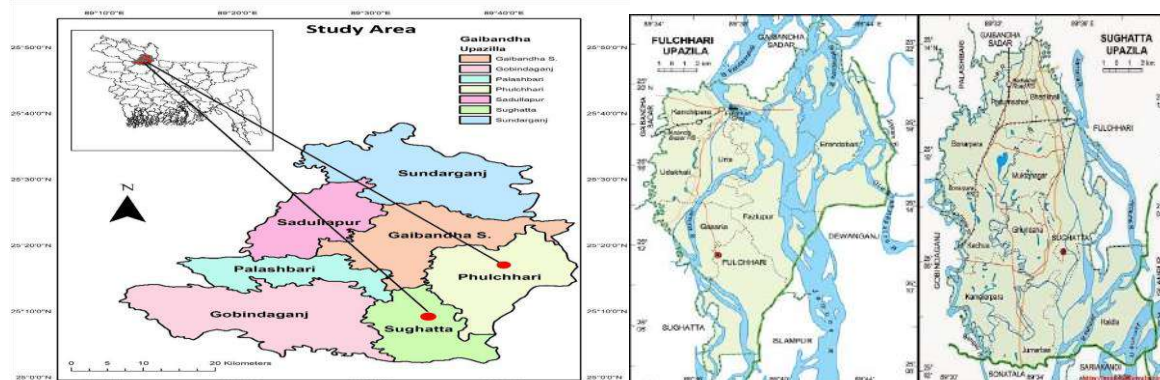

Figure: The study areas: the Saghatta and Fulchari Upazilas

Reached people (Direct and indirect)

Direct Reached people:

- For this study, 14% of the household heads from every village have been interviewed, which have given a sample size of 120 households for the study. That's why we have taken 120 respondents using simple random sampling where 12% are female and 88% are male.
- For capacity building training programme we have trained 20 youth people using purposive random sampling where 35% are female and 65% are male.

WhatsApp Image 2024-01-31 at 3.20.13 PM.jpeg

Participant list:

Indirect Reached people:

Total numbers influence through in-person influence are more than approximately 100000 people by 140 representatives from 5 villages of two upazila of Gaibandha which would also work as catalyst to enrich through direct interview, focus group discussion, physical training and social media through online journal named the Daily Campus, Facebook post and LinkedIn.

The Daily Campus News: https://thedailycampus.com/national/134648
Facebook post:
https://www.facebook.com/sweetu.sweetu.56863/posts/pfbid0b8BiF6NgeSTRX25ub7Kxzwgna nDjWc79VVmEgofPBRVcwBKJ7WXNb7znZ62YgLvfl
LinkedIn post:
https://www.linkedin.com/posts/umma-salma-97a974288_icccad-capres-capacitybuilding-activity-7157975859767762944-F74M?utm_source=share&utm_medium=member_android

Summary findings

Research Findings:

From social data analysis we have estimated that average financial loss of each household by losing their agricultural, total land and homestead land is approximately 921759 BDT which is range from 30000 to 2600000 BDT.
Again, we have assessed the frequency and percentage of other economic damage sectors where loss of land (90%) remains in top rank as for economical loss sector.
We have developed a Food Security Index to show the distribution of food availability throughout the year.
Finally, we have listed the main local adaptation strategies and main barriers adjacent taking these adaptations.

Training Findings:

From the capacity building program, we have trained 20 youth people of that study area. And help them equipped for being resilience and make them capable with valuable knowledge and training who would be work as catalyst for other vulnerable groups. Finally published a documentation on a reputed journal.

Describing findings of the project

Describe the progress/findings of your project

Social Data Analysis:

Most of the people of that study area affected by riverbank erosion. Lots of cultivable land, homestead land goes into the river body through erosion. Here is the estimate of the total economic loss from these sectors. Where 2600000 BDT are the highest and 30000 BDT are the lowest fanatical value damaged by each household.

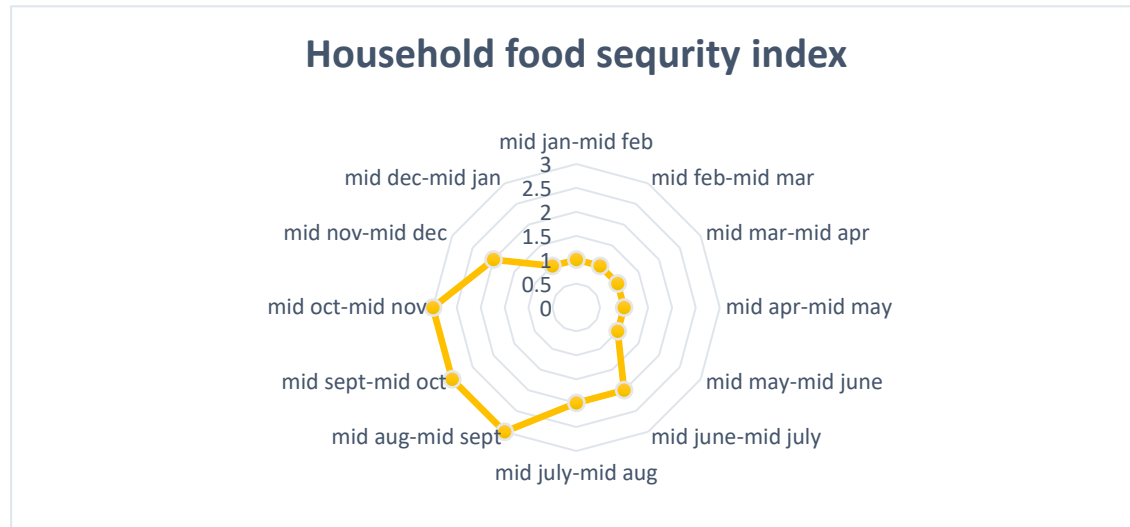| Items	Maximum	Minimum	Average
Total amount of homestead area lost (decimal)	52	0	20.47058824
Total amount of agricultural land lost (decimal)	825	0	383.9
Total amount of land(decimal)	200	3	42.5405
Total Economic loss (TK)	2600000	30000	921759.3667

Other Vulnerable Sectors for Economic Loss and Damage:

These sectors represent as most vulnerable for economic loss and damage where most of the people faces almost every year. Here loss of farm land contains highest percent for economic loss with 109 frequency level and availability of ground water contains the lowest percent.

Category	Frequency	Percent (%)
Loss of farm land	109	90
Loss of Homestead land	76	63.33
Loss of employment opportunities	85	70.83
Loss of Trees	76	63.33
Loss of food security	100	83.33
Severity of drought	103	85.83
Availability of ground water	56	46.66
Availability of surface water	97	80.83
Severity of heat wave	105	87.5
Severity of cold wave	99	82.5

Food Security Status:

This following graph shows the adequacy of food of the vulnerable people throughout the year. Here 0-3 trends to the low to high rate of adequacy of food security status.

Household food sequrity index

Adaptation:

These list of adaptation strategies are practiced through the vulnerable community of that study area. And the barriers that they faced during taking any effective measures regarding adaptation. These are listed through face-to-face interview and focus group discussion. These two lists are given below.

List of Local Led Adaptation:

Change planting time
Cultivation of pulses
Cultivation of wheat and other crops
Tree plantation
Cultivation of local Aman rice
Cultivation of vegetables
Cultivation of HYV rice varieties (e.g., BRRI-28, 29)
Livestock rearing
Poultry rearing
Migration
Homestead gardening
Off-farm work (van, rickshaw, tempo driving)
Petty business

List of Adaptation Barriers:

Lack of information about riverbank erosion and related climatic issues
Lack of appropriate variety of crops
Scarcity of resources
Illiteracy
Inadequacy of proper training
Lack of appropriate variety of crops
Lack of knowledge concerning appropriate adaptation strategies
Lack of suitable land for cultivation

Lack of own land
Lack of storage facilities
Lack of marketing facilities
Lack of transportation facilities

Capacity Building Training Program:

From the capacity building program, we have selected the 20-youth people using purposive random sampling method. These youth are more capable than the others with their knowledge and experiences. So that, these group could work as a catalyst for their own village with tanning knowledge. From this training we have tried spared the core understanding about climate change. We have tried to find the solution of that climate vulnerable with mitigation and adaptation knowledge. Along with, we have arranged a practical setting to share our thoughts with one another. Finally, we have encouraged them for green project distributing trees among the participants and published our activity in a reputed journal for publicity to make awareness among people.
In a short this training worked as capacity building program for the young people of that vulnerable areas and encourage them in green practices to adapt with climate change.

Measuring Progress
How many project activities you have done? (These might be workshops, focus groups, or performances, etc). Please list all of these
Total 10 project activities that I have experienced through my career development. These are: 1.Research Assistantship in a project on "How does livelihood vulnerability influences in local climate change adaptation? Empirical evidence from disaster prone areas in Bangladesh" at SUST Research center (Project no: FES_2020_01_08) 2.Internship on "Resilience through Economic Empowerment Climate Adaptation Leadership & Learning 2021 (REECALL 2021)", SKS Foundation, Gaibandha, Bangladesh 3. Online training on Anticipatory Impact and JNA Analysis organized by Needs Assessment Working Group (NAWG), Bangladesh 4.Oral participant at An International Conference on Earth and Environmental Sciences & Technology for Sustainable Development ICEEST-2019 5.Oral presenter at 1st South Asian Conference on "Unfolding Emerging issues in the context of Changing Climate Scenario". 6.Training on urban tree inventory (learn how to use i-Tree modeling tools for tree benefit analysis). 7. Hons Research Project 8. Thesis Research Project 9. Management Plan Project 10. Pumpkin project

Identifying new skills and where to learn more

What are the most useful skills or practices that you learned? Which do you use most often?

I have learned lots of useful skills such as networking, program management, leadership, public speaking, convince the target people to with, professional manners, knowledge sharing etc. Among these I mostly use the networking skill which makes my problems easier to sort it out with diversified facilities.

What knowledge or skills do you think would have improved your project?

I have gathered detail knowledge on climate change and learned the procedure of conduction any capacity building program through my youth fellowship program which helped me significantly to lead my project from the frontline as a leader. Specific knowledge on climate loss and damage, Local led adaptation (LLA) helped me to figure out my project plan along with networking capacity, communication skill, project management efficiency helped enormously to conduct my project successfully.

What are the challenges/Risks you faced during the project activities? How you overcome/minimize those challenges?

During conduction of my project there was many unexpected obstacles arrived to explore the remote areas, convince people for interview, extract the core findings, manage the training program, budget distribution, safety security issues etc.
But through out these challenges we tried our best to menage all the problems through the help of the local authorities and our fellowship learning such as networking, building thrust among the participants, professional experiences and so on.

Write down the "lesson-learn" of your project

The main learning of this project is to learn practically how to make plan and conduct a successful project as a youth to distribute our knowledge and experiences throughout the vulnerable people and make them capable for upcoming any kind of natural calamities in a sustainable way.

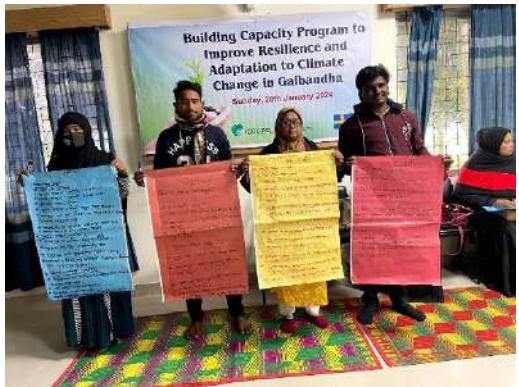Add most relevant photos of your activities with captions (not more than 4).

Photo 1

Photo 2

Photo 3

Photo 4

Write a feedback on this innovation fund. (Write a paragraph within 400 words)

- How you know about this
- How you benefited from this
- What are lacking you faced
- How can we make the initiative better for the next year?

Being a student of Forestry an Environmental Science, I have immense interest on natural conservation activities. So that, I have involved myself with several research, tanning, workshop, project which are connected to nature. But as a student, fund crisis is the main barrier to conduct any kind of development projects. Experiencing these, my research

supervisors suggest me to apply for the Youth Fellowship 2023 of ICCCAD. Which came to me with enormous opportunities to explore many ideas and knowledge with practical and professional settings. I was so lucky enough to select for the Youth Innovation Fund among so many quality proposals. But

this fund helped me to implement my charriest dream project which was planned based on my knowledge and experiences. Throughout this project I have had close experiences with actual climate vulnerable people in our country, the opportunity to assess their problems and building capacity of those vulnerable. I have focused the northern part of Bangladesh which are susceptible to riverbank erosion, flood and drought. But this fund is not enough to for minimising all the problems of climate vulnerable. There are lots of scope to improve the livelihood of the climate affected people in our country. But lack of sufficient fund is the main barrier to drive the development projects in our country. Along with we need to give more focus on scientific research, capacity building program, training involving the youth people. These Youth Innovation Fund initiative is really appreciable to take our country ahead by involving the young generation in social developments. But if we think for the further betterment of this initiative it needs to increase its budget to involve more youth to involve them in social welfare. And this program should sustain for a long time to enhance the quality of the development initiatives.