

Training Report on Fundamentals of Climate Change for NGO Professionals

01-02 December, 2023

Executive Summary

This executive summary encapsulates a comprehensive training program focused on climate change and project management conducted by the International Centre for Climate Change and Development (ICCCAD), Independent University Bangladesh. The training, spanning multiple sessions, engaged participants in diverse aspects of climate change causes, impacts, mitigation, adaptation, and project management strategies.

Led by expert trainers, the climate change sessions discussed the causes and impacts of climate change in Bangladesh. Notable topics included the irregular patterns of El Niño events, the increasing frequency of climatic hazards, and the consequent climate-induced migration. Participants gained insights into the multifaceted challenges faced by Bangladesh, such as floods, cyclones, sea level rise, and river erosion.

The training further explored climate change mitigation and adaptation strategies. Specific measures for sectors like energy, industry, transport, and health were discussed. Emphasis was placed on the interconnected nature of mitigation and adaptation, highlighting the need for a comprehensive approach. The session involved group work to explore local adaptation measures in a specific region.

An engaging session on Locally-Led Adaptation (LLA) underscored the significance of empowering local communities in crafting, executing, and overseeing adaptation initiatives. Principles of inclusivity, participation, equity, and adaptability were highlighted. The discussion addressed operational mechanisms and recognized the evolving nature of LLA.

Participants were also introduced to climate risk assessment tools and project management fundamentals. The session on climate risk assessment equipped participants with the knowledge to identify indicators and assess vulnerabilities. Project management discussions covered initiation, planning, execution, monitoring, and closing phases, emphasizing leadership, communication, and meticulous documentation.

Besides, a thought-provoking session explored "loss and damage" in the context of climate change, delving into economic and non-economic aspects. The interconnectedness of loss and damage with mitigation, adaptation, and disaster risk reduction was elucidated. Discussions included financial needs, COP27 outcomes, and an update on the operationalization of a Loss and Damage Fund.

The training concluded with a session on project proposal development and tools for Monitoring and Evaluation (M&E). Key terms such as resource, input, output, outcome, and impact were clarified. The importance of monitoring and evaluation in project management was emphasized, with insights into the Logical Framework and indicators.

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Training Agenda

Time	Name of the Session/Activity	Resource Person and Facilitator
Day 1 (01 December, 2023)		
11:30 am-11:40 am	Welcome Remarks	ICCCAD, IUB Team
11:40 am-11:50 am	Orientation of Participants	ICCCAD, IUB Team
11:50 am -12:00 am	Pre-evaluation	Habibur Rahman Capacity Building Officer, ICCCAD, IUB
12:00 am -12:45 pm	Session 1: Essentials of Climate Change Science	Shamrita Zaman Senior Researcher, ICCCAD, IUB
12:45 pm -03:00 pm	Prayer and Lunch Break	
03:00 pm -04:00 pm	Session 2: Climate Change Causes and Impacts in Bangladesh	Shamrita Zaman Senior Researcher, ICCCAD, IUB
04:00 pm -05:00 pm	Session 3: Climate Change Mitigation and Adaptation Strategies in Bangladesh	Habibur Rahman Capacity Building Officer, ICCCAD, IUB
05:00 pm-05:15 pm	Tea Break	
05:15 pm -06:00 pm	Session 4: Principles of Locally Led Adaptation (LLA)	Ashraf Ahamed M&E Manager, ICCCAD, IUB Habibur Rahman Capacity Building Officer, ICCCAD, IUB
06:00 pm -07:00 pm	Session 5: Climate Risk Assessment	Naznine Nahar Project Officer (Youth), ICCCAD, IUB
Day 1 (01 December, 2023)		
09:00 am -10:45 am	Practice of Climate Risk Assessment Tool	Naznine Nahar Project Officer (Youth), ICCCAD, IUB
10:45 am -11:15 am	Session 6: Introduction to Loss and Damage	Habibur Rahman Capacity Building Officer, ICCCAD, IUB
11:15 am -11:30 am	Tea Break	
11:30 am -01:00 pm	Session 7: Fundamentals of Project Management and its cycle	Maria Aktar Asst. Project Manager, ICCCAD, IUB Ashraf Ahamed M&E Manager, ICCCAD, IUB
01:00 pm -02:00 pm	Lunch Break	
02:00 pm -03:30 pm	Session 8: Basics of Project Proposal Development and tools for MEAL	Maria Aktar Asst. Project Manager, ICCCAD, IUB Ashraf Ahamed M&E Manager, ICCCAD, IUB
03:30 pm-03-45 pm	Post-evaluation	Habibur Rahman Capacity Building Officer, ICCCAD, IUB
3:45-3:55 pm	Closing Remarks	Maria Aktar Asst. Project Manager, ICCCAD, IUB

Acronym

BDP	Bangladesh Delta Plan
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
CAN	Capacity Needs Assessment
CRA	Community Risk Assessment
CAP	Climate Action Pitch
CAP-RES	Capacity Strengthening of Multi-Actors to Limit Climate Change Impacts and Enhance Resilience
CO2	Carbon Dioxide
COP	Conference of Parties
DRR	Disaster Risk Reduction
GHS	Green House Gas
ICCCAD	International Centre for Climate Change and Development
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
L&D	Loss and Damage
LED	Light-Emitting Diode
LLA	Locally Led Adaptation
LPG	Liquefied Petroleum Gas
MCPP	Mujib Climate Prosperity Plan
MEAL	Monitoring, Evaluation, Accountability and Learning
M&E	Monitoring and Evaluation
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NGOs	Non-government Organizations
NSIDMB	National Strategy on Internal Displacement Management of Bangladesh
PM	Project Manager
RMG	Ready Made Garments
SOP	Standard of Procedure
SMART	Specific, Measurable, Achievable, Relevant, and Time-Bound
UN	United Nations

1. Background

Local communities are immediately impacted by climate change and must deal with the consequences for their way of life. While some communities are able to adjust to the changing climate naturally or by organized means, most of the time they suffer the most from catastrophic occurrences that result in fatalities and serious damage to their assets. Incorporating local populations into the creation of adaptation plans is crucial, given their innate resilience and potential for adaptation across millennia.

To jointly combat and adapt to the effects of climate change, local communities, community-based organizations, local NGOs, small companies, community members, citizen groups, local government, and local private sector entities play a crucial and vital role.

Local NGOs are among the front-line stakeholders who are essential in addressing the effects of climate change and increasing the effectiveness of adaptation programs among the most vulnerable communities. The primary focus areas are community awareness-building, developing skills for community volunteers through various trainings, educating the community on alternative, sustainable, and climate-resilient livelihoods, collaborating with local government on disaster preparedness and response, and supporting vulnerable communities in their preparation and response to climate-related disasters. As an interface between the public and the government, they are vital. Furthermore, Bangladesh's current plans and policies defined and acknowledged the role of NGOs in various disaster-related contexts, including those brought on by climate change.

Building the capacity of local non-governmental organizations (NGOs) involved in disaster risk reduction or climate change is essential if the interventions are to be more sustainable and effective. According to a recent evaluation of the capacity needs of NGOs addressing climate change in Rowmari Upazila, Kurigram, by ICCCAD, IUB, these organizations require greater expertise in order to effectively integrate and align with currently implemented community-level interventions.

The International Centre for Climate Change and Development (ICCCAD), Independent University Bangladesh (IUB) developed a plan to deliver a brief training on “The Fundamentals of Climate Change for NGO Professionals” in order to address the capacity needs of local NGOs. The project, which is funded by the Embassy of Sweden, is called "Capacity Strengthening of Multi-Actors to Limit Climate Change Impacts and Enhance Resilience (CAP-RES)." The primary goal of the program is to highlight the NGO representatives in Rowmari Upazila, Kurigram, who are working to improve the ability of the local community to adapt to the effects of climate change.

Through the initiative, participants had the opportunity to participate in interactive discussions, collaborative tasks, and in-depth exercises to learn from one another about the impacts of climate change, current mitigation and adaptation strategies, best practices for adaptation, and strategies for effectively involving communities in all stages of intervention and proposal development.

2. Overview of the Training

2.1. Objectives of the Training

At the end of this capacity building training, participants have been able to

- Know the basics of climate Change- terminologies, causes, impacts, adaptation
- Understand climate vulnerability and role of local community to reduce risk
- Gain knowledge on the process of Community Risk Assessment focusing on Climate Change
- Familiar with principles of Locally Led Adaptation (LLA)
- Explain how LLA can contribute to disaster and climate resilience
- Discuss about the efforts to address and combat the climate change impacts nationally and globally with an overview of global climate negotiations
- Attain proficiency in developing project proposal and seeking funding opportunity

2.2. Methodology

The short training has been conducted in person and residential for two days. Total eight sessions have been conducted in two days.

This training followed various trainer-centered methodologies, including:

- Participatory lectures and discussions
- Peer to peer learning
- Climate Action Pitch (CAP) by Short Video Presentation
- Discussions
- Group Works
- Extensive Practical Exercise

2.3. Target Group of Participants

The training has been provided to NGO professionals working on climate change or disaster risk reduction in Rowmari Upazila, Kirigram. Total 18 professionals maintaining gender balance have participated in the training. Segregation of participants based on gender and organization they represent are illustrated below:

Overview of the Training

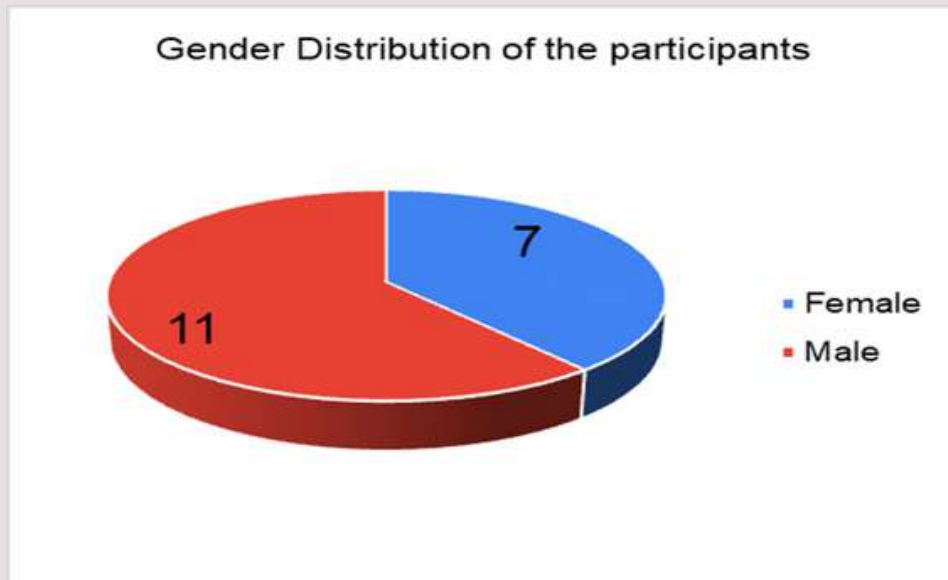


Figure 01: Gender Segregation of Participants

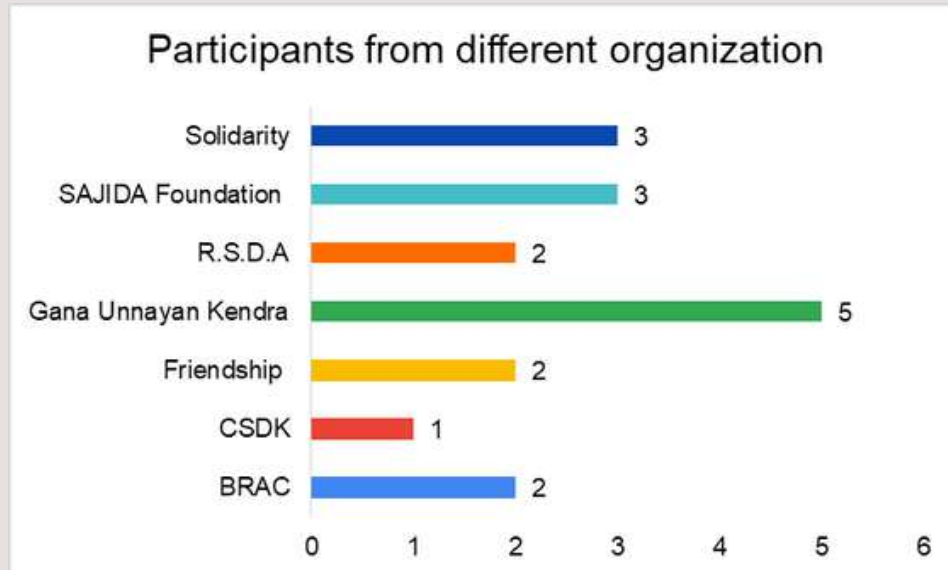


Figure 02: Distribution of Participants based on Organizations

2.4. Date and Time

The training has been arranged at BRAC Learning Center, Modupur on 01 & 02 December, 2023.

3. Standard Operating Procedure (SOP)

This section describes steps and process of how the training has been arranged. The key steps are illustrated through a schematic diagram and explanation of each step is given below:

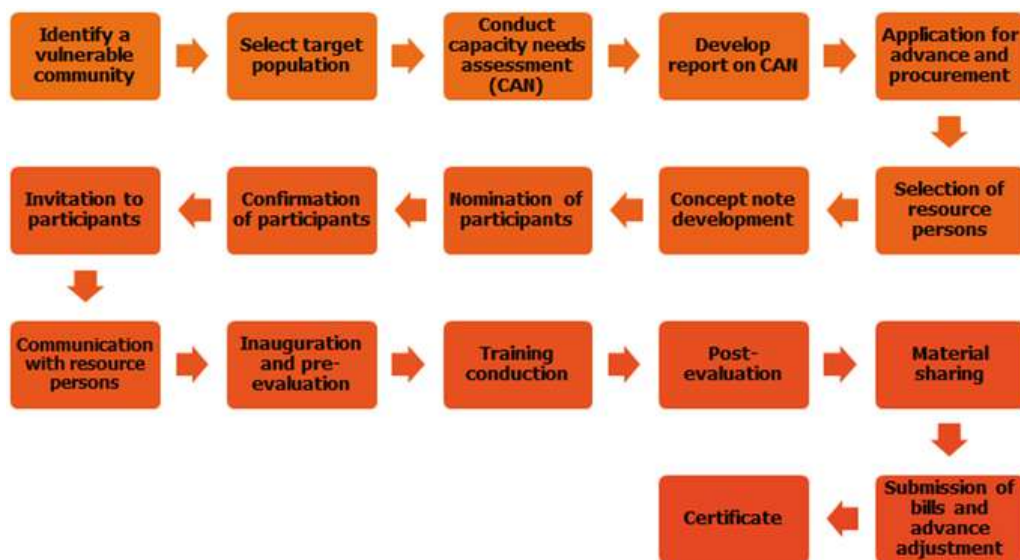


Figure 03: Steps and Process followed to arrange the training

3.1. Identify a community

A community or area has been selected based on consultation with the project advisors, Prof. Saleemul Huq and Prof. Mizan R Khan, where the capacity building training will be conducted based on their needs. Rowmari has been selected as most the funds and projects go to the coastal areas of the country and north-eastern parts get less priority to the policy makers, donors and implementers.

3.2. Select target population

NGO professionals have selected for the training as they play a crucial role to combat climate change at the community level and work as transmitter of knowledge and as an interface between community and government stakeholders.

3.3. Conduct Capacity Needs Assessment (CAN)

A need assessment has been conducted on NGO professionals in Rowmari to identify their present capacity condition and future capacity needs through interview following a checklist. This assessment included aspects they want to receive training, preferred modality, expected duration etc. to design and organize the training based on their preferences for best possible effectiveness and outcome.

3.4. Develop report on CAN

A report on the findings from Capacity Needs Assessment (CAN) has been prepared outlining their opinions regarding topics of the training, modality, duration, training venue, convenient date and time etc. This report served as detailed guideline to successfully organize the training.

3.5. Application for advance and procurement

A detailed budget has been prepared separating for advance and procurement and then sent to finance and procurement department with the approval of designated authority.

3.6. Selection of resource persons

Resource persons were chosen based on their expertise in the specific topics covered in the training and based on their availability. One designated resource person was assigned for each topic, and these individuals could be either internal.

3.7. Concept note development

The training was conceived with key questions addressed, including the rationale behind the need for such training, identification of target participants, selection of resource persons, delineation of both broad and specific training objectives, determination of the training's timing, location, detailed agenda and methodology.

3.8. Nomination of participants

A considerable number of individuals who work as local manager of the organizations in Rowmari were emailed requesting to nominate training participants from their organization considering gender balance. The email included attachments such as a concept note, agenda and a flyer. The list of email was collected during CNA. Participants list have prepared based on their nomination of participants over mail.

3.9. Confirmation of participants

Nominated participants have been contacted and confirmed their participation over phone.

3.10. Invitation to participants

A week prior to the training, an invitation mail has been sent to the nominated participants. Then a follow-up email was dispatched to serve as a reminder on the day before the training, emphasizing the importance of timely participation in the upcoming training.

3.11. Communication with resource persons

Internal resource persons have been contacted with training details including duration of the respective session, training venue, travel plan and brief about the participants.

3.12. Inauguration and pre-evaluation

The training has been inaugurated by the assistant project manager welcoming them to the training and then an online pre-evaluation form prepared through google form has been shared with participants via email to assess their knowledge before the training.

3.13. Training conduction

Training has been conducted following the agenda with particular emphasize to maintain the sequence and allocated time for each session.

3.14. Post evaluation

Upon finishing the entire training program, an online post-evaluation form prepared through goggle form has been shared with participants via email to assess their knowledge after the training.

3.15. Material sharing

After concluding each session, the PowerPoint presentations have been distributed to all participants.

3.16. Submission of bills and advance adjustment

All the bills for advance have been submitted and adjusted to finance department with the approval from designated authority. Signature to the bills prepared by hotel for venue and food has been ensured immediately after the training.

3.17. Certificate

E-certificate for participation has been issued and shared via email.

4. Session Description

4.1. Inauguration: Inauguration Speech by Maria Aktar, Assistant Project Manager of CAP-RES Project, at International Center for Climate Change and Development (ICCCAD), Independent University Bangladesh (IUB)

Maria Aktar inaugurated the training by extending greetings and gratitude to the participants, facilitators, and moderators. Firstly she remembered late Prof. Saleemul Huq, Director of ICCCAD and observed a moment of silence to show respect to him. In her opening remarks, she briefly outlined the key goals and objectives of the training with expected outcomes. Then she conducted the orientation session with the participants.

4.2. Session 01: Essentials of Climate Change Science by Shamrita Zaman, Senior Researcher, ICCCAD, IUB

Shamrita Zaman has conducted the first session of the training which has highlighted the very basics of climate change including the science behind climate change, its impacts, and consequences.

The discussion has been started with the primary terminologies of the climate, for instance, the difference between climate and weather patterns, the mechanism of the greenhouse gas effect, mechanisms of the greenhouse gases to trigger global warming, the disparities between global warming and climate change. The assembly of the NGO professionals was inquisitive to learn about the man-made greenhouse gas effect provokes earthen and water surface warming.



She showed the data of rise in average global temperature which is directly linked to the rise in the concentration of CO₂ / GHGs in the atmosphere and highlighted that 2023 is the hottest summer on record, compared to the baseline average from 1951 to 1980 according to NASA.

Session Description

Mrs. Zaman explained that the atmospheric surface of the earth typically contains several greenhouse gases, for instance, carbon dioxide, methane, ozone, nitrous oxide, chlorofluorocarbons, water vapour, and presence of such greenhouse gases are comparatively balanced along with other gases in the atmosphere. Imagine these gases as a cozy blanket enveloping our planet, helping to maintain a warmer temperature than it would have otherwise. Scientists have determined that carbon dioxide plays a crucial role in maintaining the stability of Earth's atmosphere. If carbon dioxide were removed, earth's surface temperature would drop significantly, by approximately 33°C (59°F).

Such balanced conditions have become lopsided with the increase of the greenhouse gases due to the man-made activities in the earth, like burning of fossil fuels, firing bricks in the brick kilns, black fumes from the industries and vehicles, deforestations and so on. All such activities release greenhouse gases, predominantly carbon dioxide which ultimately added with pre-existing greenhouse gases in the atmosphere. The level of carbon dioxide in Earth's atmosphere has been rising consistently for decades and traps extra heat near Earth's surface, causing temperatures to rise. The trainer explained the whole process with an animated image which helped the audience to figure out explicitly the way how the man-made greenhouse gas effects provoke earthen and water surface to be warmed globally.

She also showed the data of IPCC (2014) on the emissions of GHGs from different economic sectors where electricity and heat production; agriculture, forestry and other land use; and industry are major source of emission respectively.

She showcased, as example, the margins of the Greenland Ice Sheet have been thinning by tens of meters over the last decade. At least part of the thinning is because warmer temperatures are causing the ice sheet to melt. Melting glaciers add to rising sea levels, which in turn increases coastal erosion and elevates storm surge.

Then, the session turned to figuring out the position of Bangladesh with the prospect of climate change and associated disasters. This part of the first session highlighted reasons behind Bangladesh's exposure towards climate change induced hazards where the trainer explained Bangladesh's position as the world's sixth most disaster prone country. The trainer displayed some power point slides regarding the evidence of happening climate change.

Finally, the discussion has been concluded some policy documents of Bangladesh to combat climate change impacts including National Adaptation Programme of Action (NAPA) 2009, Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009, National Adaptation Plan (NAP) 2023-2050, Mujib Climate Prosperity Plan (MCP) and Bangladesh Delta Plan (BDP) for 2100.

Open Discussion under Session 01

One participant asked why climate change is recently considered and emphasized as human induced. Based on the question, the facilitator shortly discussed that climate change is primarily considered as human-induced because of the overwhelming scientific evidence that points to human activities as the primary driver of the changes we are currently experiencing. Over the past few decades, human activities, particularly the burning of fossil fuels, deforestation, and industrial processes, has released massive amounts of greenhouse gases (such as carbon dioxide) into the atmosphere. These gases act as a heat-trapping layer, known as the greenhouse effect, which leads to an overall increase in global temperatures.

Scientific studies have provided strong evidence linking the rise in atmospheric greenhouse gas concentrations directly to human activities. Additionally, natural factors, such as solar activity and volcanic eruptions, have been well-studied and their contribution to recent climate changes is found to be relatively minimal.

Moreover, the rates at which the Earth's climate is changing today are unprecedented compared to previous natural variations. The rapid increase in temperatures, melting of glaciers, rising sea levels, and more frequent extreme weather events all align with the predicted consequences of human-induced climate change.

Therefore, based on extensive scientific research and evidence, it is widely accepted that human activities are the primary cause of recent climate change. Recognizing this human influence is essential for developing effective mitigation and adaptation strategies to address the challenges associated with climate change

4.3. Session 02: Climate Change Causes and Impacts in Bangladesh by Shamrita Zaman, Senior Researcher, ICCCAD, IUB

Shamrita Zaman has also conducted the second session of the training which has underlined the causes of climate change including natural and anthropogenic and the impacts of climate change on different sectors of Bangladesh.



This session was started explaining natural and anthropogenic causes of climate change with more emphasis of human activities responsible for GHG emission which largely causes changes in climate.

Among natural causes, she explained the El Niño event which is a worldwide climate phenomenon characterized by the warming of surface waters in the equatorial Pacific Ocean, which exerts an influence on the ionosphere and overall climate of its surroundings. Being fabricated with the hottest summer on the record in 2023 during the active phase of the El Niño (as per NASA), the NGO professional asked the frequency of the occurrence of the El Niño event.

Mrs. Zaman explained El Niño and La Niña events occur every two to seven years, on average, but they do not occur on a regular schedule. For example, similar patterns were observed in 2016 during the active phase of El Niño. This highlighted irregular pattern of the El Niño event occurrence and the significance of understanding and preparing for the impacts of this climate phenomenon on Bangladesh and its weather patterns.

Session Description

Next, the trainer explained the impacts of the increasing frequency and intensity of the climatic hazards in Bangladesh though the country is less responsible.

Different types of floods, its' projected upward trend, and ability of the floods to cause devastations were explained taking 1998 flood and 2020 flood as case examples. Furthermore, how an improved cyclone forecasting and warning system have reduced the death tolls from around 300,000 in 1970 Bhola cyclone to around 3000 during cyclone Sidr was elucidated. Impacts of sea level rise, salinity intrusion, and river erosion were also described.

The trainer explained that the increasing frequency and intensity of climatic hazards provoke climate migration in Bangladesh. The National Strategy on Internal Displacement Management of Bangladesh states that around 4.7 million people migrated internally in Bangladesh from 2008 to 2014 in the wake of disasters, and estimates that as many as 16 to 26 million people are expected to move from their places of origin due to climatic hazards between 2011 and 2050.

She further discussed different consequences focusing major hazards of the country particularly at the local level. Then local NGO professionals were engaged figuring out the on-going devastating consequences of the climate change induced hazards.

4.4. Session 03: Climate Change Mitigation and Adaptation Strategies in Bangladesh by Habibur Rahman, Research Officer (Capacity Building), ICCCAD, IUB

Habibur Rahman has conducted an enlightening training session on the critical aspects of mitigation and adaptation to climate change in Bangladesh, focusing first on the significance of mitigation measures and strategies. Then adaptation strategies in different sectors of Bangladesh have been discussed focusing at the local level. He also discussed some actions that can contribute to mitigation and adaptation simultaneously. Finally a group work among

Open Discussion under Session 02

One participant wanted to know about the possibility of intensive heat wave and its consequences in Bangladesh.

Against this query, she replied that Bangladesh faces grave risks from escalating heat waves due to its location, terrain, dense population and some other causes including deforestation, loss of biodiversity and unplanned land use. Climate change worsens these dangers, heightening the frequency, severity, and duration of heat waves. This brings forth several outcomes: more extreme heat, health hazards for vulnerable groups, agricultural issues affecting food security, increased energy demands, water scarcity, disruptions to daily life, and potential migration. To tackle these challenges, Bangladesh requires extensive measures like early warnings, health interventions, enhanced infrastructure for water and agriculture, and sustained efforts to combat climate change and lessen global emissions.

Session Description

participants has been conducted to explore the local adaptation measures practiced in Rowmari Upazila within the major climate affected sectors such as agriculture, fisheries, health and migration.



He began the first part of the session emphasizing the essence of mitigation, which involves actions aimed at reducing the severity of a disaster's impact. Investing in measures that limit hazards was highlighted as a pivotal approach to significantly alleviate the burden of disasters.

Habibur Rahman proceeded to discuss the context of climate change mitigation, emphasizing its core objective of curbing the release of heat-trapping greenhouse gases into the atmosphere. The discussion pivoted towards specific mitigation measures tailored for Bangladesh across various sectors.

In the energy sector, he highlighted initiatives such as incorporating renewable energy in national textbooks, widespread deployment of solar panels in governmental, non-governmental, and autonomous institutions, standardization of energy-efficient LED and solar products, and the gradual replacement of inefficient brick kilns with efficient ones. The integration of energy efficiency and solar energy issues into building codes and discouraging the use of neon signs in markets and shopping malls at night were also outlined.

Energy use in industrial sector of Bangladesh is still not much converted to green energy due to lack of financial support for installation of necessary infrastructure. In case of reducing GHGs emission, Bangladesh is progressing but achieving net zero is difficult because of progressive economy of the country and dependency on garment industry for its revenue.

Transport sector strategies were touched upon, including modal shifts from road to rail and initiatives aimed at improving road traffic congestion to enhance vehicle fuel efficiency.

Session Description

He also detailed measures for
encompassed the adoption of

He also detailed measures for industries, households, commercial buildings, and forests. These encompassed the adoption of energy-efficient equipment, appliances, and lighting in households, the introduction of domestic gas metering, the replacement of biomass with LPG for cooking in rural areas, energy-efficient appliances and rainwater harvesting in commercial buildings, and diverse afforestation and reforestation programs across coastal, reserved, degraded forest areas, and wet-land forest restoration initiatives.

The session underscored the significance of a comprehensive approach to renewable energy adoption, highlighting the multifaceted strategies required for Bangladesh's sustainable development and resilience against climate change impacts.

Overall, the training session offered a detailed and comprehensive understanding of tailored mitigation measures crucial for Bangladesh, showcasing a holistic approach towards climate change mitigation and adaptation in various sectors, essential for the country's resilience and sustainable development.

As the second part of the session, the trainer has drawn a clear distinction between mitigation, aimed at reducing carbon emissions causing climate change, and adaptation, which involves managing the risks posed by climate change impacts. Mitigation actions, such as sustainable transport and green energy, were juxtaposed against adaptation strategies like disaster management, flood protection, and infrastructural development.

Exploring adaptations in various sectors of Bangladesh, he highlighted specific measures including the development of new crop varieties suited for changing conditions, innovative practices like pumpkin cultivation in sandy areas, floating gardens, rainwater harvesting, and the use of shallow machines for irrigation. Techniques like plinth raising, the Adhi system, short-term migration, and long-term migration were also discussed as adaptation strategies in response to climate change.

In the realm of health adaptation, he stressed the importance of proactive preparation for food, medications, and safe water availability during post-disaster situations. He emphasized practical approaches like netting around beds and community-level health warnings during extreme weather conditions.

Highlighting the Ashrayan Prokalpa, a government housing project for climate refugees, Rahman exemplified initiatives aimed at aiding vulnerable populations affected by climate-induced displacements.

Furthermore, Habibur Rahman underscored the need for simultaneous efforts in both mitigation and adaptation. Strategies like protecting coastal wetlands, promoting sustainable agroforestry, decentralizing energy distribution, securing indigenous peoples' land rights, and improving mass transit were emphasized as combined approaches to address the impacts of climate change while mitigating its causes.

Overall, the session provided a comprehensive understanding of adaptation to climate change, emphasizing tailored strategies crucial for Bangladesh's resilience and highlighting the importance of concurrent efforts in both mitigation and adaptation to tackle the multifaceted challenges posed by climate change.

Session Description

Open Discussion under Session 03

A question on why garment industry in Bangladesh is not satisfactorily moving to renewable energy and achieving net zero for its production has been raised by a number of participants.

He answered that reaching net-zero emissions marks a substantial shift, demanding hefty investments in renewable energy. Opting for renewables over fossil fuels imposes a significant financial strain on Bangladesh's RMG (Ready-Made Garments) industry. Despite being the world's second-largest in export earnings, this industry relies on government cash incentives. However, transitioning to renewables poses challenges beyond financing.

While energy consumption within garment factories remains relatively low, the issue extends to the backward linkages like dye houses and spinning mills, which heavily rely on intensive energy usage.

One participant wanted to know the Adhi system for adaptation and the trainer explained that the Adhi system serves as an income-generating method for poor people unable to afford their own livestock. In this arrangement, they lease cattle or other animals from more affluent livestock owners. Both the owner and the borrower ultimately split 50% of the profits each. This setup particularly benefits women, offering supplemental income. Widely adopted and easily accessible, the Adhi system is regarded as a female-friendly means of earning for disadvantaged households.

Group Work and Presentation under Session 03

Four groups have been made consisting almost five members in each group. They have worked together in order to explore local adaptation strategies exercised in Rowmari Upazila of Kurigram district based on four sectors including agriculture, fisheries, migration and health. The findings are discussed below:



Adaptation in Agriculture

- ☒ Plant crop that can be harvested before floods
- ☒ Using organic fertilizer
- ☒ Using deep and shallow machine for irrigation
- ☒ Cultivation following pyramid system
- ☒ Using vermin compost
- ☒ Using solar pump
- ☒ Creating floating seedbed
- ☒ Cultivation following loft method
- ☒ Manage irrigation from surface water
- ☒ Plan draught resistant crops
- ☒ Plan flood resistant crops
- ☒ Creating seed bank
- ☒ Homestead gardening and cultivation of vegetable
- ☒ Swelling of seedbeds in homestead
- ☒ Pheromone trap
- ☒ Cultivation in sacks

Session Description

Adaptation in Migration

- ☒ Arrange structure for permanent residence
- ☒ Involving in alternative income generating activities
- ☒ Developing food bank
- ☒ Creating cluster village
- ☒ Reducing early marriage
- ☒ Constructing rubber dam
- ☒ Scale up social safety net services
- ☒ Ensuring proper use of loans
- ☒ Creating seed bank
- ☒ Constructing dams to protect erosion
- ☒ Coordinate between government and non-government organization
- ☒ Providing skill development training
- ☒ Encourage savings at household levels

Adaptation in Health

- ☒ Purifying water for drinking
- ☒ Availability of Orsaline
- ☒ Preserve dry food
- ☒ Tight the mouth of tube well
- ☒ Build toilet in high land

Adaptation in Fisheries

- Cultivate fish along with floating vegetable cultivation
- Integrated fish farming
- Fishing with nets
- Fish farming with cages
- Fish farming across the pond elevating the bank of ponds
- Fish farming across the pond fencing the bank of ponds with nets
- Cultivate fish in wetlands
- Integrated farming of fish, vegetable, livestock
- Using of improved minnow
- Cultivate fish digging the base of tube well
- Fishing in Chari
- Fishing in tank or water reservoir
- Preserve fish through drying



4.5. Session 4: Principles of Locally Led Adaptation (LLA) by Ashraf Ahamed, M&E Manager, ICCCAD, IUB

Ashraf Ahmed conducted an engaging session on Locally-Led Adaptation (LLA), diving deep into its definition, historical context, significance, operational mechanisms, and fundamental principles.

LLA, as defined, stands as an approach empowering local communities in crafting, executing, and overseeing climate change adaptation initiatives. This method hinges on local wisdom, tailor-made solutions, and community involvement.

Exploring its historical backdrop unveiled the shortcomings of traditional top-down approaches in addressing climate change challenges faced by communities. LLA represents a shift recognizing local communities' resilience and adaptability.

Session Description



The paramount importance of LLA stems from its ability to elevate the efficiency and longevity of adaptation endeavors. By engaging local communities, it guarantees solutions that align with specific contexts, respect cultural nuances, and cater to the distinct needs and priorities of those most impacted by climate change.

Delving into the guiding principles of LLA, the session highlighted inclusivity, participation, equity, and adaptability. These principles underscored the necessity of involving all community members, amplifying marginalized voices, and adapting strategies in response to evolving local conditions.

In essence, the session offered a holistic grasp of Locally-Led Adaptation, accentuating its pivotal role in nurturing resilient communities amidst the challenges posed by climate change.

Open Discussion under Session 04

A question has been raised on what are the operational Mechanisms of Locally-Led Adaptation. In response, the trainer responded that the operational mechanisms of Locally-Led Adaptation (LLA) are a strategic amalgamation of community-centric approaches aimed at empowering local populations to proactively tackle the challenges posed by climate change. At its core, LLA emphasizes community engagement, encouraging active participation in decision-making processes and ensuring that adaptation strategies resonate with local knowledge.

Capacity building plays a pivotal role, equipping communities with the necessary skills and knowledge to take charge of their adaptive measures. Fostering a sense of local ownership is key, instilling a commitment to the success and sustainability of adaptation initiatives. Collaboration with various stakeholders, including local governments and NGOs, enhances the impact of LLA by leveraging collective resources and expertise. Moreover, LLA adapts to the dynamic nature of climate change by employing flexible strategies, rooted in contextualized solutions tailored to each community's unique circumstances. Monitoring and evaluation mechanisms, along with knowledge-sharing platforms, contribute to a continuous learning process, ensuring that LLA remains adaptive and effective in the face of evolving climate challenges.

The participants made a comment of learning more about LLA and demanded a daylong session on LLA. The trainer replied that due to time constraints and the current national political situation, the training has been organized within a condensed timeframe and the session with shorter time, for example allotting just half an hour on Locally-Led Adaptation (LLA). Recognizing that LLA is a dynamically evolving concept, continually updated with new insights, it is aimed to provide a foundational introduction within the given constraints. It's important to note that this initial session serves as a starting point, and it is anticipated that future sessions will be conducted with more comprehensive information and extended time allocations. He appreciated participants' understanding and engagement, and look forward to delving deeper into LLA in subsequent sessions.

4.6. Session 5: Climate Risk Assessment and Practice of Climate Risk Assessment Tool by Naznine Nahar, Project Officer, ICCCAD , IUB

Naznine Nahar has facilitated the session. In this session, she highlighted the importance of climate risk assessment as well as introduced the tools and practices of climate risk assessment. It was an interactive session, where participants played some exercises and took part in open discussion. Before, the interactive session, she explained some basic terms of climate risk assessment such as Climate Vulnerability, Risk, Hazard, Exposure, Sensitivity, and Adaptive capacity. After explanation of basic terminology, she facilitated an exercise, where all the participants assessed their own climate risk.



A short brief of the climate risk assessment exercise:

At the beginning of the exercise, all the participants had been asked to identify some indicators under exposure, sensitivity, and adaptive capacity with respect to their geographical location and potential hazard profile. The participants have identified indicators and determined the weight of each indicator. They have weighted all the indicators from 1 to 3 and put the score in the following equation to measure climate vulnerability score.

Session Description

Vulnerability = Exposure + Sensitivity – Adaptive Capacity ----- (Equation 01)

After vulnerability assessment, they have learned how to identify the hazard score from hazard mapping and calculate the climate risk score. Similar to the vulnerability score, they measured their own risk due to climate change.

The overall exercise, made them enable to understand the process and indicators of climate risk assessment. The session also enabled them to understand the necessity of climate risk assessment to implement a project in the community level.

Along with introducing risk assessment tool, Ms Naznine also explained why development practitioner should learn about risk assessment and how they will apply their leanings in field level.

Highlights from the session: The importance of climate risk assessment:

- Vulnerability and Risk Assessments is necessary to reduce climate change vulnerabilities in communities
- Community-level climate risk assessments enable local authorities and decision-makers to prioritize resources and investments effectively. By understanding the vulnerabilities and potential impacts of climate change, they can allocate funds and develop policies that address the most pressing issue
- Climate risk assessment in development project helps to identify the marginalized as well as helps to develop effective planning of priority setting
- Community-level assessments foster community engagement and participation. By involving residents, businesses, and organizations in the assessment process, it ensures that their perspectives and knowledge are considered. This participatory approach helps build resilience and empowers communities to take ownership of their climate adaptation efforts
- Climate risk assessments at the community level contribute to a broader understanding of regional and national climate change impacts. By aggregating data from multiple communities, policymakers can identify patterns, trends, and common challenges, which can inform the development of more effective climate policies and strategies at higher levels.

Open Discussion under Session 05

There were no questions under this session.

Session Description

4.7 Session 6: Introduction to Loss and Damage in Bangladesh by Habibur Rahman, Research Officer (Capacity Building), ICCCAD, IUB

Habibur Rahman has taken a thought-provoking session exploring into the intricacies of "loss and damage" in the context of climate change and its intersection with adaptation, mitigation, and disaster risk reduction (DRR).



He began by elucidating the distinction between "losses" and "damages," stressing that while losses signify irreversible outcomes like human lives, damages can be repaired, such as roads damaged by disasters.

Delineating types of loss and damage, he highlighted economic losses encompassing agriculture, fishery, infrastructure, and property, alongside non-economic aspects like biodiversity loss, human mobility, cultural heritage, mental health, and gender inclusivity.

The session navigated the fine line distinguishing adaptation from loss and damage, referencing IPCC findings that effective adaptation might not prevent all losses and damages. He emphasized that the unequal distribution of losses and damages across vulnerable population remains inadequately addressed by current financial and governance systems.

He then explored the interconnectedness of loss and damage with disaster risk reduction, noting its occurrence due to insufficient mitigation, adaptation, or DRR efforts. He underscored how mitigation reduces the risk of climate events, adaptation adjusts to climate impacts, and DRR aims at minimizing risks from sudden hazards, all interrelated with loss and damage.

Attributing loss and damage at the nexus of hazard, vulnerability, and exposure, He highlighted methods like climate modeling, in-depth analysis, and the ethical quandary of quantifying non-material losses like human lives or cultural assets.

Discussing financial needs, he talked about a Loss and Damage Fund established at COP27 covering both economic and non-economic losses, encompassing infrastructure rehabilitation, relocation, ecosystem restoration, social protection, cultural heritage restoration, livelihood rebuilding, capacity building, healthcare support, and recovery.

Highlighting COP27 outcomes, he outlined the agreement to establish an L&D Fund, albeit with uncertainties around its capitalization sources, including concerns about diverting funds from adaptation, UN DRR/DM funds, and the role of organizations like the World Bank. Finally He has given an update about the operationalization of L&D fund in the first day of COP28.

The session provided an extensive and insightful exploration of loss and damage, its attribution challenges, financial requirements, and the complex interplay between climate adaptation, mitigation, and disaster risk reduction in addressing the multifaceted impacts of climate change.

Open Discussion under Session 06

A question has been raised by participants that why loss and damage aspect is important over adaptation in climate change. Habibur Rahman responded that losses and damages are inevitable, distributed unevenly, and cannot be entirely prevented by adaptation measures. Both international and domestic approaches fall short in effectively tackling this issue.

It's crucial to note that losses and damages persist despite efforts in adaptation and can occur even before the limits of adaptation are reached. These limits represent the point where adaptive measures no longer shield against climate impacts. As these limits are surpassed, losses and damages intensify since adaptation measures can no longer mitigate the adverse effects. However, such impacts can manifest even before these limits are reached.

Adaptation limits can be classified into two categories: soft and hard limits. Soft limits indicate scenarios where current adaptation options are unfeasible but might become viable in the future. For instance, a farmer might presently be unable to afford irrigation or drought-resistant crops but could access these options with increased financial resources later on.

On the other hand, hard limits signify situations where existing adaptation measures lose effectiveness, and no further options exist. For instance, the restoration of coral reefs as an ecosystem-based adaptation encounters hard limits at 1.5°C due to intensified ocean acidification and warming, severely reducing coral survivability.

4.8. Session 07: Fundamentals of Project Management and its cycle by Maria Aktar, Assistant Project Manager, ICCCAD, IUB

Maria Aktar led an insightful session on the integral facets of project management, focusing on guiding a proficient team through the project lifecycle. The discussion highlighted the core stages of initiating, planning, executing, monitoring, and closing a project. Each phase was dissected to highlight essential considerations and managerial qualities necessary for successful project completion.



She discussed components of project management cycle summarized below:

- Initiating: The goal for this phase is to define the project.
- Planning: This phase includes developing a roadmap for everyone to follow.
- Executing and Monitoring: In this stage, the project team is built and deliverables are created. PMs will monitor and measure project performance to ensure it stays on track.
- Closing: The project is completed, a post-mortem is held, and the project is transferred to another team who will maintain it.

Session Description

The initial phase emphasizes comprehending the project's purpose, stakeholders, and feasibility. Strategies encompass the creation of a project charter, collaborative planning with the team, and rigorous feasibility and risk assessments in consultation with the community. Notable tips she included fostering strong relationships with the community, NGOs, and government entities, and maintaining pertinent data relevant to the project's thematic work.

The planning phase, second component, is pivotal in defining the project's scope and creating a comprehensive roadmap. It involves detailed activity planning through tools like Gantt charts, financial and procurement planning, risk assessment, communication planning, and structuring a robust human resource plan. Maria Aktar stressed the importance of early planning, Excel proficiency, and understanding cost estimates for effective project management.

The third phase, launch and execution, marks the active commencement of project activities. Maria Aktar outlined the to-do list, emphasizing team leadership, task delegation, regular progress review meetings, beneficiary feedback sessions, and maintaining close contact with funding agencies. Detailed documentation was highlighted, including project proposals, correspondence, reports, and ensuring meticulous picture documentation.

The last phase, performance and monitoring, revolves around monitoring project progress using KPIs to track objectives, effort, costs, and overall performance. Maria Aktar highlighted the significance of post-mortem meetings to evaluate successes and failures, collating final documents, and effectively communicating project success to stakeholders and executives. Celebratory gestures for the team's effort were recommended for fostering a positive work environment.

Maria Aktar emphasized that effective project management leads to increased efficiency, better deliverables, simplified communication, improved growth and development, higher output, increased flexibility, and a stronger organizational structure.

Throughout the session, Maria emphasized crucial managerial qualities such as strong leadership, effective communication, meticulous documentation, attention to detail, and the importance of fostering a positive team culture. Celebrating successes and acknowledging team efforts were highlighted as essential for maintaining morale and motivation.

Finally Maria Aktar's session provided comprehensive insights into the intricacies of project management, emphasizing not only the technical aspects but also the managerial qualities crucial for successful project completion.

Session Description

Open Discussion under Session 07

Participants wanted to know about the role of manager to successfully implement the project on the ground and the behaviors with other colleagues. The trainer responded that a project manager drives successful project execution, handling planning, coordination, and oversight. They're crucial in the workspace due to:

Leadership & Direction: They lead the project team, setting objectives, defining scope, timelines, and assigning responsibilities for unified goal pursuit.

Stakeholder Management: Acting as the main contact, they engage with clients, sponsors, team members, ensuring communication, expectation management, and issue addressing for project success.

Risk & Issue Management: They spot, assess, and handle risks and issues, devising strategies, contingency plans, and tackling potential roadblocks to maintain project flow.

Resource Coordination: Managing resource allocation and usage by assigning skilled personnel, monitoring availability, and resolving conflicts or limitations during execution.

Group Work and Presentation under Session 07

Four groups have been made consisting almost five members in each group. Each group was assigned for a component of project management cycle to work together with the objective to explore the activities that lie in each components of the cycle. After completing the work, one male and female member from each group presented their work to the participants.



4.9. Session 08: Basics of Project Proposal Development and tools for MEAL by Ashraf Ahamed, M&E Manager, ICCCAD , IUB

Ashraf Ahmed, the Monitoring and Evaluation (M&E) Manager at CAP-RES, conducted another illuminating session on the fundamentals of M&E in project management, exploring key terms and essential concepts.

He began by elucidating crucial terms such as resource, input, output, outcome, impact, target, baseline, and end line, setting the groundwork for understanding the intricacies of project evaluation.

Ashraf portrayed the significance of monitoring, describing it as a continual internal management activity pivotal in ensuring a project's alignment with its objectives. This process not only tracks progress but also detects and addresses arising issues promptly. He emphasized monitoring's reliance on tools like the Logical Framework, implementation schedules, and project budgets for comprehensive assessment.

Moving onto evaluation, he emphasized its role in periodically assessing whether a project attains its intended goals. This evaluation conducted internally or externally, focuses keenly on outcomes and impacts, distinguishing between baseline, mid-term, and end line evaluations.

Session Description

Ashraf Ahmed elaborated on the Logical Framework, detailing its components—activities, outputs, outcomes, and impacts—while emphasizing the integral role each plays in project success. He elucidated how a clear Logical Framework aids in understanding and measuring a project's progression, its immediate and intermediate results, and the long-term, far-reaching impact beyond the project's lifespan.

In discussing indicators, Ashraf Ahmed stressed their necessity in being SMART: specific, measurable, achievable, relevant, and time-bound. These indicators serve as essential markers to gauge a project's success and effectiveness.

Overall, his session provided a comprehensive understanding of M&E's pivotal role in project management, emphasizing the need for systematic monitoring and evaluative frameworks to ensure project success, efficacy, and sustainability.

Open Discussion under Session 08

Participants wanted to know about the types of Evaluation and the proper time for evaluation. In response, he categorized the evaluation along with proper time, purpose and main focus of the evaluation as follow:

a) Baseline Evaluation

- When: Conducted at the beginning of the project.
- Purpose: Establishes a benchmark for future comparisons.
- Focus: Gathers initial data on the project's starting point.

b) Mid-term Evaluation

- When: Occurs during the project implementation phase.
- Purpose: Assesses progress towards objectives.
- Focus: Identifies challenges and adjusts strategies if necessary.

c) End-of-Project Evaluation

- When: Conducted after project completion.
- Purpose: Assesses overall project success and impact.
- Focus: Examines the extent to which objectives were achieved.

Another question was asked to explain what the result harvesting is. The trainer replied that result Harvesting is an evaluation method that involves collecting and documenting evidence of project results in a flexible and participatory manner. This approach is particularly useful when dealing with complex and dynamic projects where outcomes are not easily predetermined or quantifiable. Result Harvesting is often employed in situations where traditional evaluation methods may not fully capture the richness and diversity of project outcomes

5. Concluding Remarks



Maria Aktar, Assistant Project Manager of CAP-RES, has concluded the training with closing remarks appreciating their interest; passion and commitment; enthusiasm for learning; and nice cooperation over the training. She expected the participants to be connected with us for any technical and knowledge support further and pledged to arrange further capacity building training in future. Finally she concluded her speech with the expectation that they will transform the knowledge gained from the training into action, creating sustainable solutions for our communities. Then a group photo has been taken.

6. Result of Pre and Post Evaluation

After the training has been inaugurated, an online pre-evaluation form prepared through google form has been shared with participants via email to assess their knowledge before the training.

Upon finishing the entire training program, an online post-evaluation form prepared through goggle form has also been shared with participants via email to assess their knowledge gained over the training and also get their overall feedback on the training.

The knowledge of participants after the training has widely been improved which is evident based on analysis of pre and post evaluation. The feedback on overall management of the training was found satisfactory to them. The major feedback was to extend the duration of the training in future.

Summary of Feedbacks

The feedback from participants of the training program provides a comprehensive understanding of their perceptions regarding various aspects of climate change, risk assessment, project management, and workshop organization.

Participants showed a strong understanding of fundamental concepts related to climate change. For instance, a vast majority correctly distinguished between weather and climate, recognizing that weather pertains to short-term trends while climate involves long-term changes. Similarly, participants demonstrated knowledge regarding El-Nino and La-Nina effects, with a significant majority understanding the temperature patterns associated with each phenomenon.

Moreover, participants provided insights into the local impacts of climate change, citing examples such as irregular rainfall, flooding, and temperature fluctuations in their areas. This showcases their awareness of climate-related challenges and their relevance to the local context.

In terms of climate risk assessment, there was a clear understanding among participants of the major components, with hazard, vulnerability, and exposure being correctly identified as key factors. Additionally, participants demonstrated a high level of self-assessed knowledge in concepts such as exposure, sensitivity, adaptive capacity, and overall climate risk assessment, indicating the effectiveness of the training in enhancing their understanding.

The feedback also highlighted participants' comprehension of mitigation and adaptation strategies. Most participants accurately differentiated between the two, recognizing mitigation as efforts to reduce greenhouse gas emissions and adaptation as actions to adjust to the impacts of climate change.

Furthermore, participants exhibited a strong grasp of renewable energy concepts, with the majority correctly identifying wind power as an example of renewable energy.

The importance of local community participation in adaptation planning was underscored by participants, who recognized its role in enhancing cultural relevance, scientific knowledge, and decision-making power.

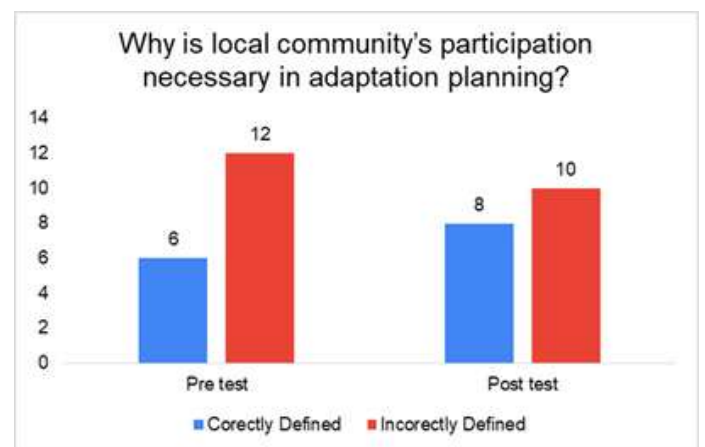
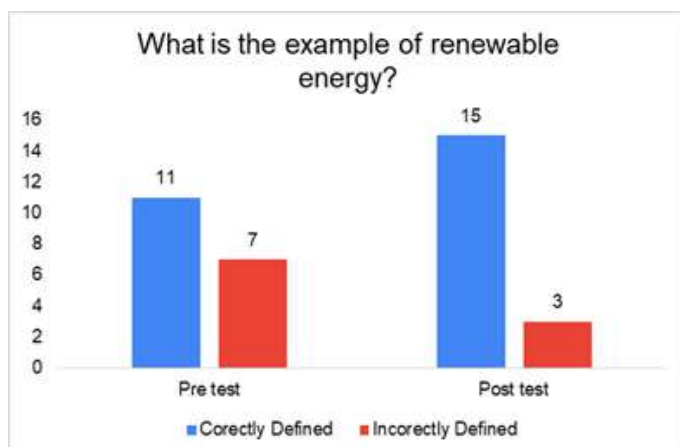
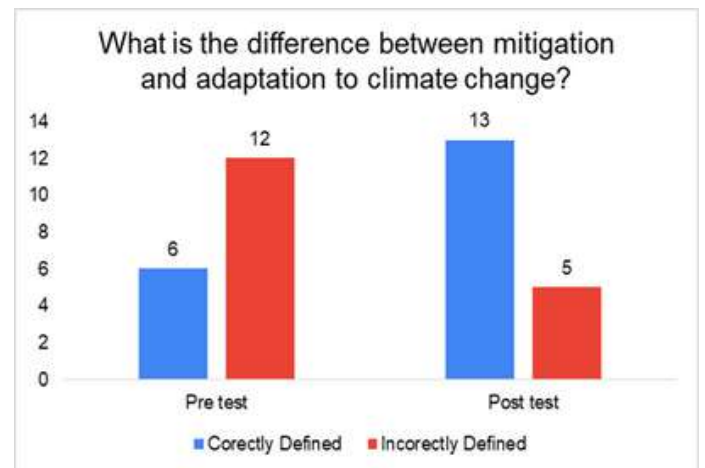
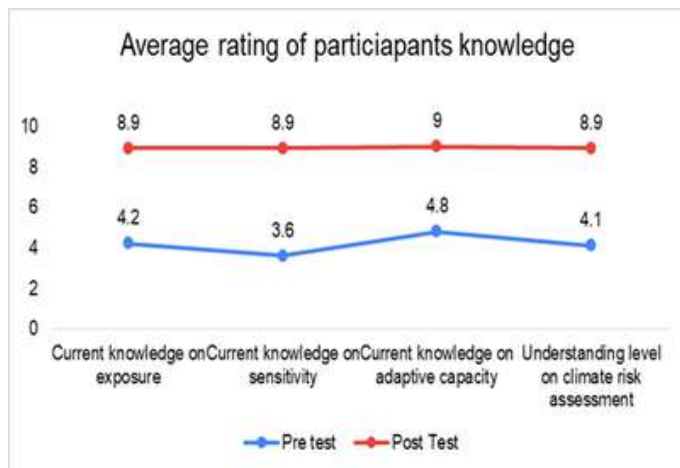
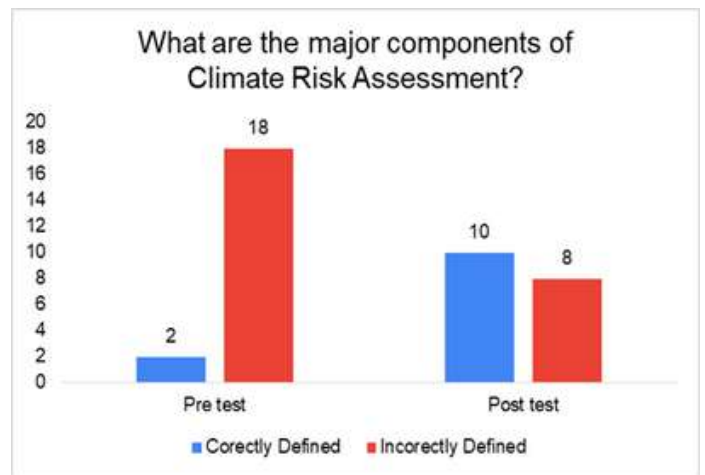
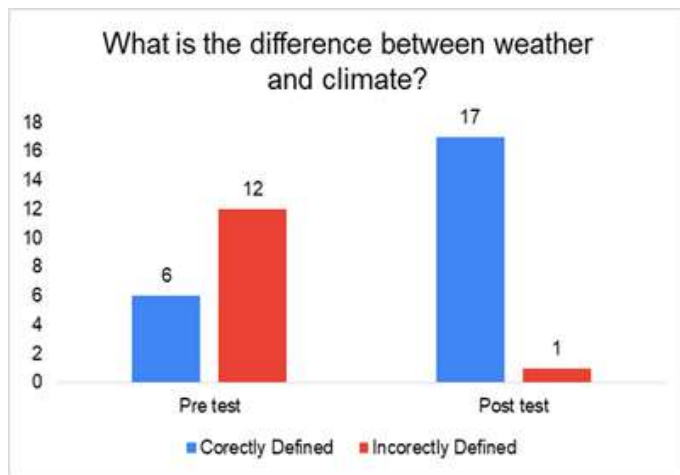
In terms of project management, participants demonstrated awareness of key stages such as planning, implementation, and evaluation. They also recognized the significance of elements like project budgeting and monitoring and evaluation in project proposals.

Regarding the workshop itself, participants generally expressed satisfaction with the content, learning modalities, materials provided, and the competence of resource persons and facilitators. They also appreciated the support and communication from the project team, as well as the quality of venue, accommodation, and food provided.

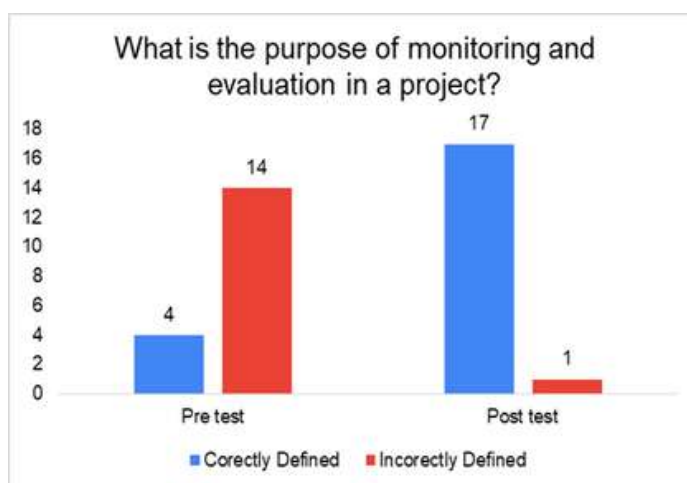
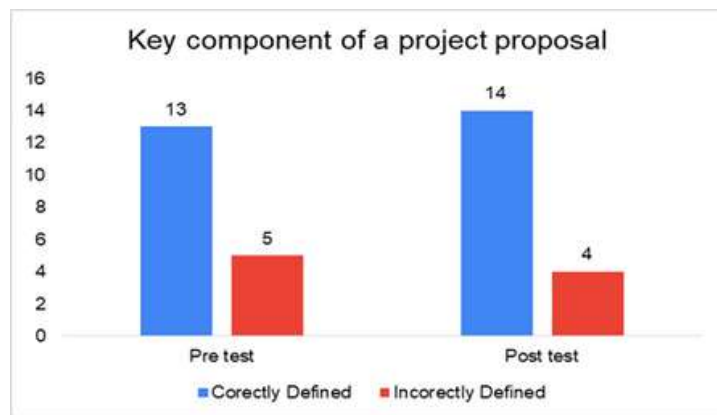
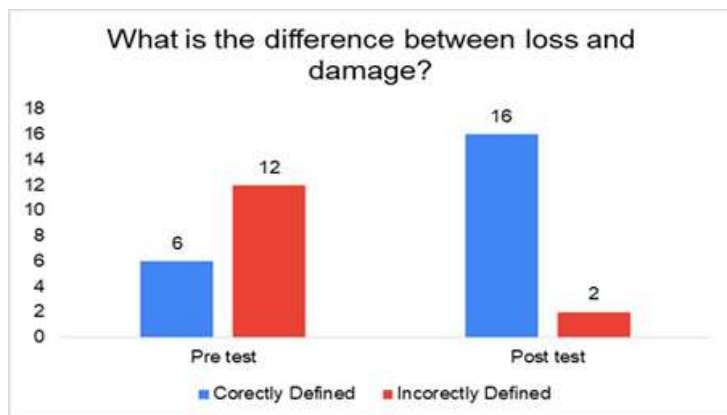
Overall, the feedback indicates that participants gained valuable knowledge and skills from the training program, enhancing their understanding of climate change and related concepts. It also reflects positively on the organization and delivery of the workshop, suggesting that it effectively met the expectations and needs of the participants .

Annex 1: Analysis of the Pre and Post Evaluation and their Feedback

Pre and Post



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Feedback of the Training

