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■ ADAPTING TO CLIMATE CHANGE

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PHOTO:UNSPLASH

Scopes for aligning LLA with the indigenous customary laws in Chittagong hill tracts

Incorporating Locally Led Adaptation (LLA) for community development in Chittagong Hill Tracts

Savio Rousseau Rozario and Hla Thoaiching Marma

The Chittagong (now Chattogram) Hill Tracts (CHT) region of the South Eastern part of Bangladesh is well-known for its scenic beauty and is also the home of more than thirteen indigenous groups representing around 0.9 million of the national population. For millennia, the indigenous communities in the Chittagong hill tracts have been living in harmony with nature, even though in many cases they become the victims of social exclusion, and their limited access to basic services, and

greater dependency on natural resources makes them vulnerable to different climate-induced disasters, mainly slow onset events. For instance, the indigenous communities living in remote parts rely much on natural resources for their survival, and one of the major livelihood options of these communities is rain-fed agricultural practices. Therefore, the availability and accessibility of water become a great concern for the communities, especially during the dry seasons. Besides, the impacts of climate change as slow onset events in the region are often overlooked, even though recent studies claim 'CHT' to be a 'climate

“The significance of this initiative was the spontaneous engagement of the local communities throughout the entire project phase”

vulnerable hotspot’ of Bangladesh. Over the years the rise of average annual temperature and erratic rainfall patterns has greatly influenced their agricultural practices hampering their income and overall well-being. A recent report by the World Bank states that the increasing temperature and erratic rainfall would decrease living standards all over the country, with an approximate loss of USD 171 billion, 6.7% of the country’s GDP by 2050. Seven of the ten most vulnerable districts that would be most affected are in the Chittagong division, including the three hill districts- Khagrachari (12.6%), Rangamati (15.8%), and Bandarban (18.4%). The locals report that erratic rainfall and prolonged arid conditions are the two major challenges prevailing in the region as it greatly influences their agricultural production, and food security, eventually hindering their income generation activities. Besides, man-made maladaptive interventions, and unsustainable practices such as demolishing the hills, deforestation, and introduction of alien species (flora) are some of the root causes that result in water scarcity; threatening their survival in their ancestral lands.

In recent times, the government with the support of development and implementing partners such as UNDP has taken significant initiatives to improve the condition of the local communities residing in CHT through the “Strengthening inclusive development in the Chittagong Hill Tracts” project. One of the major components of the initiative was the ‘CHT Climate Resilience Project (CCRP)’ led by UNDP which focused on ensuring water security and safeguarding the water sources within the region as the key priority. The significance of this initiative was the spontaneous engagement of the local communities throughout the entire project phase from design to implementation, where the Locally Led Adaptation (LLA) framework was introduced. The CRCs (Community Resilience Committees) were formed within the communities, and the members of the CRCs were responsible to conduct the CCVA (Climate Vulnerability Assessment), and developing LRP (Local Resilience Plan) for their respective communities. Such measures, not only helped the communities to enhance their knowledge of climate change but also helped them to become ‘leaders’, and build a strong network at different levels reducing structural and social inequalities. The CRCs are still in practice even though the project ended during the COVID pandemic, and the members of the CRC are reported to be involved in safeguarding natural resources and promoting awareness. It is to be mentioned that, the CCRP was a successful initiative in the CHT as the local communities were extensively involved during the entire process, and also the socio-cultural bonding within the communities played a significant role. The legacy of the CRCs and their ongoing activities denotes the success of the LLA framework within the indigenous communities, which significantly aligns with the customary laws. Thus, combining Locally Led Adaptation (LLA) and customary laws can be an effective approach to addressing climate change issues in the Chittagong Hill Tracts. This could happen through:

Incorporating Traditional Knowledge and Practices into Adaptation Measures: Local communities in the Chittagong Hill Tracts have traditional knowledge and practices related to natural resource management and agriculture. By incorporating this knowledge into the adaptation measures, it is possible to promote sustainable and climate-resilient practices that are culturally appropriate and socially acceptable to the local communities.

Strengthening Traditional Institutions: Traditional institutions, such as village councils or traditional leaders, can play a key role in implementing adaptation measures by utilizing customary laws aligning with LLA. By strengthening these institutions, they can be empowered to facilitate the implementation of adaptation measures through LLA and ensure that the customary laws are respected and followed.

Building Climate Resilience through Customary Laws: Customary laws incorporated with LLA can be used to build climate resilience in the Chittagong Hill Tracts by promoting

the knowledge of sustainable land use practices, such as rotational farming, agroforestry, and the use of local seed varieties. These practices can help conserve biodiversity and ensure food security, even in climate change.

Addressing Gender and Social Equity Issues: Customary laws can be used to promote gender and social equity in implementing adaptation measures. Recognizing the role of women and marginalized groups in natural resource management, customary laws can ensure that the benefits of the adaptation measures are distributed fairly and that the most vulnerable groups are supported. This would also align with principle two of the LLA framework, which includes addressing and reducing structural inequalities.

Developing Locally-led Climate Adaptation Plans: Locally-led adaptation plans can be developed through a participatory process that involves local communities and incorporates customary laws and traditional knowledge. These plans help to identify and prioritize adaptation measures that are culturally appropriate, socially acceptable, and effective in building climate resilience.

Moreover, combining LLA and customary laws can provide a comprehensive, culturally appropriate, and socially acceptable approach to addressing climate change issues in the CHT. Some thoughts on the practical implementation of LLA by utilizing customary laws could be as follow:

Incorporating Customary Laws into Adaptation Planning: The customary laws of the Chittagong Hill Tracts can be incorporated into the adaptation planning process to ensure that the adaptation measures align with the local traditions and customs. Therefore, the involvement of local communities in the planning process is essential to identify and integrate the customary laws relevant to the adaptation measures.

Recognizing Traditional Knowledge and Practices: The Chittagong Hill Tracts has a rich tradition of indigenous knowledge and practices related to natural resource management and agriculture. These practices can be recognized and integrated into adaptation measures through LLA to ensure they are sustainable and effective. The involvement of local communities in the adaptation planning process is essential to identify and integrating these traditional practices.

Alternative Dispute Resolution: The customary laws of the Chittagong Hill Tracts include informal mechanisms for dispute resolution. These mechanisms can be utilized to resolve conflicts related to implementing adaptation measures and establishing proper monitoring and evaluation mechanism. By providing an alternative to formal legal processes, these mechanisms can promote more efficient and effective resolution of disputes resulting from climate-induced challenges such as watershed management.

Overall, the effective implementation of LLA by utilizing customary laws in the Chittagong Hill Tracts requires local communities' active participation and involvement in all stages of the adaptation process. Recognizing and integrat-

ing the local communities' customary laws and traditional knowledge, ensuring that the adaptation measures are equitable, effective, and sustainable is possible. ■

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“ These practices can be recognized and integrated into adaptation measures through LLA to ensure they are sustainable and effective ”

CONFERENCE



Gobeshona team at the closing ceremony

PHOTO: COURTESY

On 'monitoring locally- led adaptation and resilience'

The 3rd Annual Gobeshona Global Conference

Sarah Farheen Khan

Adaptation is crucial to address the needs of communities and individuals through an intensely local approach via a global conceptual framework. It needs to be inclusive, empathetic and tactical in its approach. Bearing this in mind, Dr

Saleemul Huq, Director of the International Centre for Climate Change and Development initiated the launch of the annual Gobeshona Global Conference series on locally-led adaptation, both virtually and globally after the widespread Covid-19 Pandemic in 2020. The Gobeshona platform has been a valuable space for sharing knowledge, exchanging ideas, and building partnerships to address the complex challenges of climate change. The adaptation challenges we face are far too complicated, and our fates are far too intertwined. It is not just Bangladesh, but the whole planet that is being affected by climate change. We can either work together in this common cause in building research into action, or we can all go down together. Keeping this in mind, the platform runs the annual conference for a whole week attempting to gather knowledge to facilitate decision-making for adaptation and resilience.

This seven-day conference is now a well-established, fully online conference that takes place round the clock, across all regions globally. 24 hours a day with three eight-hour sessions, starting with the Asia-Pacific time zones, then the European and African time zones, and finally the Americas' time zones. Though the conference was held virtually on online platforms, the ICCAD- Gobeshona team stayed back at a hotel for the conference duration creating a command centre, this is how running 4 sessions simultaneously, round the clock was possible. Bringing together scientists,

researchers, policymakers, and representatives from civil society organizations and the private sector from over a hundred countries around the world to discuss the latest developments in climate change research and explore new ways to address the challenges.

This year the conference was carried out from March 10 to 16t focusing on “Monitoring locally-led adaptation and Resilience” amongst other themes like Loss and Damage, Adaptation Technology, Climate Justice, Disaster Management, Deltas, Gender, Youth & Social Inclusion.

Regardless of receiving hundreds of offers from all over the world, 80 sessions on different themes were shortlisted. Finally, the platform ran over 70 sessions from universities, organizations and groups engaged at local levels. This was possible as four sessions ran simultaneously during the shifts. However, to have broader participation and inclusivity, no registration or participation fee was demanded from the co-organizers and participants. Enabling some people to participate who otherwise may not have been able to attend. This led to over 1700 participants joining through the WHOVA (Conference platform) and reached millions of attendees through Facebook, Twitter and other social media platforms. The conference was live-streamed on several online platforms, captivating audiences worldwide, after receiving an overwhelming response, the session recordings were uploaded to ICCCAD’s YouTube channel, aiming to bring in a lot more views and participation with time.

On top of that, the goal of the conference has always been to preserve a record of these profoundly influential debates and conversations online and provide free access to everyone, creating a global network for locally-led adaptation.

The key messages from each session were promoted and are available online for enthusiasts following the themes discussed. Apart from having renowned speakers and dignitaries from around the world, the conference could successfully bring in live sessions involving the Government of Bangladesh (GoB), the Scottish Government and the Government of Vanuatu. Although these countries and the communities in them belong to different regions of the world, still have something new to upskill and expand the capabilities of individuals as well as other groups. Most of the discussions echo the importance of financial support and capacity building for youth and women. Following a bottom-up approach, the floor was shared with local communities to speak for them and demand what is required before any further irreversible damage is caused by the change in the climate. ■

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Themes of the 3rd Annual Gobeshona Global Conference

EARLY WARNING SYSTEMS



Community people in Nepal developed their local plan and Mock drill the actions regularly

PHOTO:COURTESY

Starting with the first mile to support effective early warning systems at scale

Shahnawaz Whara and Dr Mirianna Budimir

According to the IPCC sixth assessment report, climate change is already very visible through more extreme weather in all parts of the world. We are seeing more intense heat waves, drought, forest fires, extreme rainfall, and deadly flooding. The warming of the ocean fuels more powerful tropical storms and rising sea levels increase the impacts. (https://library.wmo.int/doc_num.php?explnum_id=11426)

“Human-caused climate disruption is now damaging every region. The most recent Intergovernmental Panel on Climate Change report details the suffering already happening. Each increment of global heating will further increase the frequency and intensity of extreme weather events,” said Mr Guterres. “We must invest equally in adaptation and resilience. That includes the information that allows us to anticipate storms, heatwaves, floods, and droughts,”

added the UN Secretary-General. (<https://unfccc.int/news/statement-by-simon-stiell-un-climate-change-executive-secretary-on-the-ipcc-s-synthesis-report-of>)

An Early Warning System for hazards such as floods, droughts, heatwaves, or storms, is an integrated system that allows people to know that hazardous weather is on its way, and informs how governments, communities, and individuals can act to minimize the impending impacts. The 2019 Global Commission on Adaptation flagship report ‘Adapt Now’ found that Early Warning Systems provide more than a tenfold return on investment - the greatest of any adaptation measure included in the report. The report also found that just 24 hours’ warning of a coming storm or heatwave can cut the ensuing damage by 30 percent and spending US\$ 800 million on such systems in developing countries would avoid losses of \$3-16 billion per year. However, according to the UN, one-third of the world’s people, mainly in the least developed countries and small island developing states, are still not

covered by early warning systems.

Practical Action has been working across the world to strengthen early warning systems by ensuring early warning information is robust, people-centric, gender-responsive, and easily understandable by the community to take their decisions and actions to reduce risks and losses to impending climate-related hazard crises.

In Bangladesh, 66% flood affected people did not receive an early warning in 2015-2020 (BBS, 2021), and 51.9 m people are exposed to flood risks (World Bank 2020), while women often receive delayed early warning information indirectly through their male family members. Therefore, Practical Action developed a Disaster Alert App in association with the Ministry of Disaster Management and Relief as well as training 30 volunteers at scale to disseminate warnings from door to door to extend the coverage of early warning information to reach more people at risk.

In Nepal, the focus has been given to developing localized plans and support to prepare to take early action in response to warnings. Training activities, practices, and preparedness programmes are supporting communities to understand their risks, trust the warning information, and know how to react. Disaster management plans and Standard Operating Procedures for early warning are being developed, implemented, practiced, and tested.

“ In Bangladesh, 66% flood affected people did not receive an early warning in 2015-2020 ”

Digital Weather Board



Local Resilience Agents



Disaster Alert App



Voice Messages via Phone



Technological innovations connects local people with early warnings in Bangladesh

Considering the current practices and gaps, the following points are recommended to design effective, locally-led early warning systems:

1. Take a holistic, people-centered approach: For an early warning system to be effective we must address all elements to ensure that timely, accurate, reliable, and understandable information reaches everyone in the right way for them to take action.
2. Understand risk: We need to understand the risks affecting communities, including hazards, exposure, vulnerabilities, and coping capacities. We need to collaborate with those at risk and those responsible for reducing risks to develop this knowledge and help with preparedness and risk reduction planning and management.
3. Undertake evidence-based monitoring and warning: We need to monitor environmental conditions and issue warnings that fit the needs of those at risk in a scientifically robust, low-cost, contextually appropriate, scalable, and sustainable way.
4. Communicate effectively: In order for warnings to reach everyone at risk, they must be accessible, tailored, clear, understandable, useful, and actionable.
5. Develop response capacities: Develop clear preparedness plans, training, education, and resources needed in advance of a disaster. In this way, stakeholders will be confident in their roles and responsibilities, information shared, and action taken efficiently and effectively in response to the early warning before a disaster occurs.
6. Address cross-cutting issues: While undertaking all of these recommendations, we need to ensure that the development and implementation of the early warning system involve local communities and marginalized people, considers gender perspectives and cultural diversity, develops effective governance and institutional arrangements, and takes a multi-hazard approach.

There are examples of locally-led effective early warning systems all over the world. We have the tools, technologies, and frameworks to achieve early warning systems at scale, but we need to collectively work together to consciously design locally led EWS from the beginning, and not as an afterthought. We need to develop early warning systems that systematically take a people-centered and locally-led approach to ensure we are investing in systems that are fit for everyone and reach the most vulnerable, saving lives and livelihoods and developing more resilient communities. ■

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“ We have the tools, technologies, and frameworks to achieve early warning systems at scale, but we need to collectively work together ”



Locally led actions to address losses and damages

The 3rd Gobeshona Global Conference

Chowdhury Abrar Zahin and Nusrat Naushin

The International Centre for Climate Change and Development (ICCCAD) convened the third Gobeshona Global Conference, spanning over seven days for 24 hours, with a primary focus on monitoring Locally-Led Adaptation (LLA) and resilience. Given the important crossover and synergy between the Loss & Damage (L&D) and the LLA world, this year's conference saw several Loss & Damage sessions as a primary topic of interest.

Extreme weather conditions like hurricanes, floods, and wildfires are occurring more frequently and with greater

intensity as the earth's temperature continues to increase. These occurrences may cause property damage, human fatalities, and long-term environmental devastation. Hence, with the manifestation of more and more adverse impacts of climate change, Loss & Damage is a burning agenda in the global climate world. Now finally since the breakthrough development at COP27 of the creation of the Loss & Damage Fund, it has now gained more and more momentum. The Gobeshona Conference has thus brought together a distinguished and multidisciplinary group of scholars, policymakers, and practitioners from around the world in order to participate, support, and leverage the sincere objectives and creativity of local communities aiming to create and implement climate

change solutions, track the effectiveness of quality research, and take the initiative to give research a real purpose so that publications can effectively address the effects of climate change by fostering constructive debate and insight among researchers.

The “Loss and Damage Forum: Connecting Local to Global” discussion hosted by ICCCAD raised a number of concerns about climate change and its effects on local communities, highlighting the importance of coordinating local, national, and international efforts to address loss and damage brought on by climate change. This virtual workspace will act as a knowledge repository of all Loss & Damage work, undertaken by LDF members. The Loss & Damage Forum features information on global, national, and sub-national as well as local actors working in the Loss & Damage and showcases the work they are undertaking. It furthermore has stories and documentaries from local communities to reach the global negotiations table. The country case study is another feature of the Forum which captures on the ground National evidence of losses and damages. The forum also features the latest news and events of the L&D world, as well as Short course materials. The most important criterion is the Discussion Board which is how actors can connect with each other. The Forum will also host monthly calls for members to share knowledge and discuss and synergize efforts. The session saw different members themselves, highlighting how each feature is important and has contributed to their outreach.

The importance of including a gender perspective in Bangladesh’s early warning systems for natural disasters was discussed at the session ‘Gender Perspective of Early Warning System in Bangladesh’ with UN Women. For disenfranchised women, elderly people, and autistic persons, it can be difficult to access early warning systems and prepare for calamities. To provide underprivileged women’s groups with early notice of impending disasters, community disaster management volunteers are crucial. Early warning systems must be made more easily accessible, timely, and advantageous for underprivileged people in order to spread flood warnings more widely. Additionally, it’s necessary to invest in training, capacity building, and gender-responsive messaging. Women must be included in decision-making and emergency preparation, and the right tools and resources must be made available.

In a session titled “Climate Justice for Local Stakeholders at the International Court of Justice,” the Government of Vanuatu spoke on the pressing need to address climate change as well as the contribution of international law and human rights to doing so. They started the catastrophic effects of climate change on Pacific Island countries, the significance of clear legal standards, and the demand for more coherence and consistency in global climate policy. The importance of civil society in increasing public pressure on governments to act was emphasized, as was everyone’s obligation to get in-

“ Early warning systems must be made more easily accessible, timely, and advantageous for underprivileged people ”

involved in resolving this global disaster. The forthcoming resolution, which will seek an advisory opinion from the International Court of Justice, has gained resounding support and will make clear the legal responsibility to safeguard human rights and prevent environmental harm.

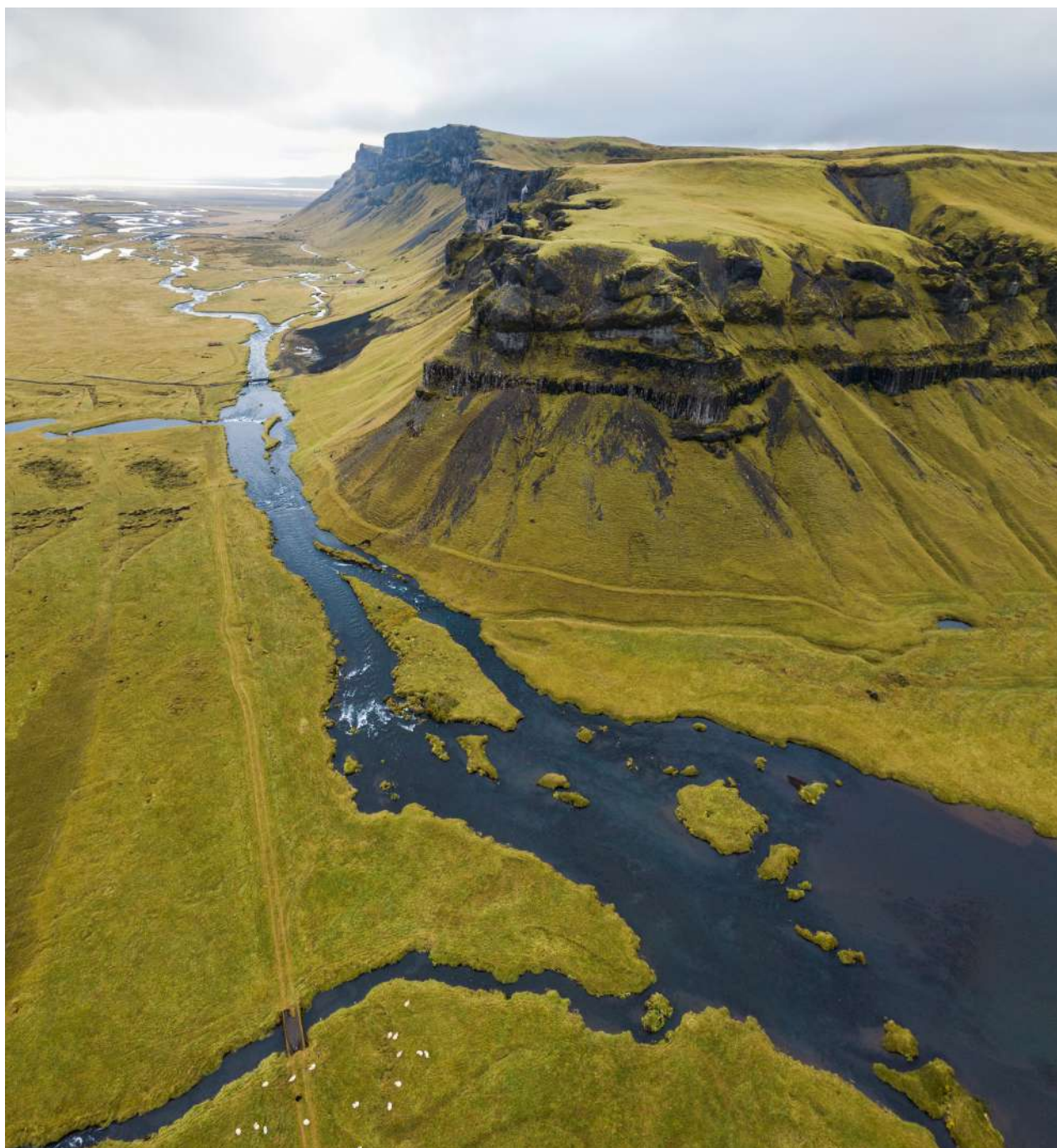
The session on Valuing The Invaluable: Methodologies For Assessing Non-Economic Loss and Damage, hosted by SCIAF, was another interesting session reflecting on the importance of a value-based approach to evaluating non-economic losses and damages. The quantification of non-economic loss and damage is a complex issue, as it is highly sensitive to cultural and local contexts. Case studies conducted in Fiji, Malawi, and Bangladesh have highlighted that non-economic loss and damages, such as the loss of graveyards, mental health issues, religious values, and cultural issues, can be challenging to quantify. This is due to the fact that the perception of such

losses varies across genders and cultural dimensions, making it difficult to develop standardized methods of measurement. It is important to recognize that while economic losses can be readily quantified, the assessment of non-economic losses requires a more nuanced approach that considers the diverse cultural and social factors that contribute to their value.

One session covered locally driven needs assessments for loss and damage financing. According to Stockholm Environment Institute (SEI), in order to argue for financial requirements, losses and damages incurred by communities as a result of climate change-related events must be determined, quantified, and communicated to stakeholders. This entails calculating recovery and rebuilding expenses as well as assessing damages and financial and non-financial demands at the household and regional levels. Case studies can point up regional solutions, and resource shortages can be filled by utilizing development, adaptation, and humanitarian efforts. There have been reports of difficulties estimating non-economic damages caused by sea level rise. Affected populations have been reported to be uprooted and in need of infrastructural solutions to safeguard their houses and promote sustainable growth. In the end, community empowerment is necessary to combat loss and harm from climate change while also upholding economic, social, and cultural rights.

Addressing the loss and damage caused by climate change requires a multifaceted approach that includes building local capacity, bridging the policy gap and implementation, promoting good governance, and incorporating bottom-up approaches in decision-making. Community empowerment, which is essential for fostering resilience and adjusting to the changing climate, is at the core of all these initiatives. Hence the Gobeshona Global Conference has given the perfect platform for Loss & Damage actors to showcase the different forms of locally led actions that have been taken and are needed to ensure effective ways to address loss and harm and create a sustainable future for all via coordinated efforts and dedication to equity and justice. ■

“ Addressing the loss and damage caused by climate change requires a multifaceted approach that includes building local capacity, bridging the policy gap and implementation, promoting good governance, and incorporating bottom-up approaches in decision-making ”



Securing the food systems of Asian mega-deltas for climate and livelihood resilience

Home to 177 million people, the densely populated Asian mega-deltas are biodiverse, fertile, and productive food baskets dominated by rice, fisheries, and aquaculture and so hold great potential to make the regional and food systems more sustainable. They support millions of people beyond the delta dwellers themselves. Deltas are nearing a significant tipping point. Tens of millions of small-scale producers in Asian mega-deltas face risks to food and nutrition security and livelihoods from the impacts of climate change.

Major climate threats for Bangladesh: Ganges-Brahmaputra Delta include:

- 110 million people at risk of displacement
- Nearly 100 million hectares of arable land vulnerable to sea level rise
- Encroaching seawater and increased salinity threatens food security for millions of people

Recent models of coastal elevation show that the Asian mega-deltas are much lower than previously assumed and will be severely affected by more frequent and more intense floods, sea-level rise, and salinization of freshwater and soil. The models also predict water shortages, severe cyclones, and climate extremes, which could lead to an annual loss of 6% of GDP in Southeast Asia, over twice the global average. A similar situation can be expected in South Asia. These trends will put increased pressure on those remaining. The result is likely further erosion of food security and increased poverty and hunger.

The objective of this initiative is to create resilient, inclusive, and productive deltas, which maintain socio-ecological integrity, adapt to climatic and other stressors, and support human prosperity and wellbeing, by removing systemic barriers to the scaling of transformative technologies and practices in the community, national and regional levels.

This objective of the initiative will be achieved through:

Improving deltaic production systems by working with farmers and local governments to identify, synthesize, evaluate, and scale interventions to ensure systems can adapt to and mitigate the effects of climate change.

Developing nutrition-sensitive deltaic agrifood systems by promoting sustainable production and consumption of nutritious foods, involving institutional stakeholders in the co-design of investment strategies and interventions.

Reducing risk in delta-oriented value chains by using evidence-based decision-support tools and engaging with stakeholders at all levels to identify, prioritize and support the most inclusive and appropriate land-water use options and management systems.

Facilitating joined-up, gender-equitable, inclusive delta-

ic systems governance by working with communities, local governments, and civil society partners to co-design and implement social processes that enable marginalized groups, women, and youth to better access delta resources and technologies and become more equal partners in food systems innovation.

Introducing evidence-based delta development planning by assessing climatic and socioeconomic trends, developing transboundary change scenarios, and facilitating the co-development of policies and collaboration mechanisms.

“The objective of this initiative is to create resilient, inclusive, and productive deltas, which maintain socio-ecological integrity, adapt to climatic and other stressors”

Coordination across deltas will ensure a coherent approach to lessons learned.

Engagement

This Initiative will work in the following countries: Bangladesh, Cambodia, India, Myanmar, and Vietnam. Lessons with regional and global relevance will be shared.

Projected impacts and benefits of the initiative include:

Climate Change Adaptation and Mitigation

Around 4.8 million people benefit from climate adaptation through the use of digital climate advisory services, improved agronomic practices, and income gains derived from the use of these innovations.

Nutrition, Health, and Food Security

Around 1.24 million people in Asian mega-deltas are anticipated to benefit from improved nutrition both directly and indirectly, including via nutrition-sensitive policies and interventions, as well as higher incomes and averted losses due to enhanced agricultural performance, adoption of digital climate advisory services, and more inclusive cross-sectoral governance.

Poverty Reduction, Livelihoods, and Jobs

Climate-smart agricultural practices, bundled services, and nutrition-sensitive interventions will contribute to poverty reduction by boosting farm incomes and employment for around 14.3 million people, 1.7 million of whom were previously living below the poverty line. Poverty will also be reduced via the impacts of improved natural resource governance.

Gender Equality, Youth & Social Inclusion

Around 4.7 million women benefit as members of smallholder households gaining income from improved farming practices, as participants in nutrition-sensitive agricultural interventions, as users of digital climate advisory services, and as users of natural resources under improved governance.

Environment Health & Biodiversity

Fine-scale land suitability assessment will identify diverse agri-production options to address soil health, biodiversity, and ecosystem services across Asian mega-deltas, improving outcomes for management, environmental health, and biodiversity over 2.6 million hectares of land.

Partners

Partnerships are vital to the success of CGIAR Initiatives. This Initiative has a wide array of demand, innovation, and scaling partners, including institutions under the national agricultural research and extension systems, universities, NGOs, the private sector, and farmers' organizations.

Status of the Initiative in Bangladesh

An inception workshop of the initiative was held in Bangladesh in August 2022 and was attended by all concerned ministries, departments, universities, civil society agencies, and the press. National partners have been identified and selected by different CGIAR agencies working in Bangladesh and internationally. Research activities have been either newly initiated or adjusted to the requirement of the new initiative.

The focus for Bangladesh under this initiative is the coastal region that includes Khulna, Barisal, Faridpur, and Chittagong divisions. This area has also been identified as one of the climate hot spots by the Bangladesh Delta Plan 2100. While CGIAR institutes will work independently along with their partners for their work packages, they

“ Climate-smart agricultural practices, bundled services, and nutrition-sensitive interventions will contribute to poverty reduction ”

will also work on some common locations collectively to showcase all the activities and to also maximize the collective impact of all initiatives.

Besides CGIAR partners many other national and international partners and networks will be involved in this initiative to be able to generate, share and discuss lessons from many other initiatives and to exchange ideas and innovations to bring global collective impact for the mega deltas. Any agency or individual interested in the issue can join hands and be part of this learning circle to work, share and discuss will be most welcome. ■

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Picture: Lila Rani Mondol, when she was seeking help from AIS for the cure of her Bullet Chilli plants via mobile

PHOTO: COURTESY

Bullet Chilli: An adaptive mechanism against climate change

Fouzia Ahmed Afia

Nature herself provides solutions to the problems caused by natural calamities. Humans need to find these solutions and apply them in their lives for survival. Bullet Chilli (*Capsicum annum*) is the name of such a solution, where the salinity is high. Natural calamities like tides, cyclones, floods, etc. occur frequently in the southern portion of our country, giving rise to salinity in water as well as land. This catastrophe creates a challenging situation for the farmers of that region. Neither do they decline the salinity of the land, nor do they find fresh water, which makes it difficult to cultivate crops on those lands. To cope with this condition, there is a need for saline tolerance of agricultural species. People find Bullet Chilli which can tolerate salinity and it is also easy as well as cost-effective to

cultivate. Even women can cultivate it effortlessly.

Lila Rani Mondol is one such woman who shared with us a story of how this spicy crop has been successfully cultivated in a saline environment. Lila is a representative of her community and lives in Jelexhali village in the Satkhira district. Brutal cyclones (like Sidr, Aila) often hit this village and therefore increase salinity in both aquatic and landscape which damages crops. Lila and her community faced social and economic disasters at that point. They tried to find a solution and came to know about the Bullet Chilli from the Climate- Smart Gender- Sensitive Farming Solution and Weather Early Warning. Also, Practical Action, in association with Win Inc. And Krishi Call Center stands by them. This shrub species could be cultivated in a small area and have a high rate of yielding capacity. Even two plants of this species are enough for one family. Lila has been involved with this cultivation for six years. She started with 150 chili seedlings in only one decimal area in front of her house. To mitigate the trouble of lack of fresh water in summer, she preserved the fresh water which was used for cooking purposes like washing rice or vegetable, and poured it into the seedlings. She used dung manure, compost manure, and dust that swept out from her home and yard and put them in the base of the plant. She sold them in the village market on a weekly basis and per week she harvested 80 to 100 kg of chillis. There is a high demand in the market for these chillis. The price of these crops varies from time to time, sometimes 100 to 150 tk per kg, or sometimes it's 80 to 90 tk per kg. She has always got the Agricultural Information Service (AIS) center by her side to cure any kind of disease of the plants. She can ensure necessary help without going to the center by calling them via her mobile phone.

This is not just Lila's story but many other women like her who continue to struggle to survive in hostile climates by cultivating Bullet chillies in the village of Jelexhali.

The gruesomeness of climate change cannot be tackled in isolation, we all need to work together from the local to the global to combat the adverse effects of climate change. But most of the time we know very little about these kinds of adaptive mechanisms, most of which remain unravelled. So essentially, we need a common platform to share this knowledge with each other in global aspects. Gobeshona Global Conference provided us with such a platform where we have got a chance to share different kinds of adaptive mechanisms from different communities from all over the world. This conference held online for the third time conducted 72 sessions in seven days with the main theme being 'Locally Led Adaptation' where many organizations from different countries took part and shared their applied knowledge and ideas. ■

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“The gruesomeness of climate change cannot be tackled in isolation”



FGD is going on with the ethnic communities in Sirajgan

PHOTO: COURTESY

Ethnic communities in Bangladesh: Their struggle against the adverse impact of climate change

Tahsin Tabassum, Roufa Khanum, and Sharmin Nahar Nipa

The 169.22 million individuals residing in Bangladesh are predominantly Bengalis, but there are also about 3 million ethnic communities who are representatives of at least 54 other ethnic groups speaking 35 different languages. Communities closely attached to ancestral territories and natural resources under specific manifestations such as religion, living under a tribal system, distinct language, dress, and livelihood means are considered ethnic communities. Ethnic people reside

throughout the country, mainly in the northern regions and the Chittagong Hill Tracts. The main ethnic groups are Khasi, Manipuri, Garo, Tripura, Bawm, Oraon, Patro, Santal, Tanchangya, Chakma, etc., with different linguistic and cultural practices.

Bangladesh is a climate-vulnerable country, and the impacts of climate change are apparent in many locations. Ethnic groups face several adverse effects of climate change as they heavily depend on natural resources; however, few pieces of research have been conducted on ethnic groups. Therefore, a study titled “Ethnic Communities in Bangladesh: Their Struggle Against the adverse impact of climate change”,



Livestock rearing the ethnic communities in Bandarban

PHOTO: ABID SHAHRIAR

facilitated by “The Research Seed Grant Initiative 2022” of BRAC University, has been conducted in six climate-vulnerable places, i.e., Bandarban (Landslide), Patuakhali (Salinity and Storm Surge), Sirajganj (Flood and Riverbank Erosion), Naogaon (Drought), Satkhira (Cyclone and Storm Surge), and Sylhet (Flash Flood). The research is designed to explore the adverse impact of climate change on ethnic communities and formulate comprehensive recommendations for reducing climate change impacts.

During the field investigation, it was observed that different climate-induced hazards have severely impacted the ethnic communities of the study locations. The ethnic women of Bandarban district mentioned their loss of jhum cultivable lands due to heavy precipitation-induced landslides, which also caused the loss of livestock and crops. Unemployment and loss of income rate of the ethnic population of Patuakhali district have increased due to repeated cyclone/storm surges and as their livelihood mainly depends on natural resources. The ethnic farmers of Naogaon and Sirajganj districts revealed that their primary source of income, depending on agriculture, has been affected by the low precipitation-induced drought leading to food and water shortages and, ultimately, malnutrition. Flash floods in Sylhet district cause a substantial loss of livestock, a vital income source for many ethnic

women. The ethnic communities of Satkhira have been affected by saline intrusion due to sea level rise and cyclones which causes infertility in cultivable land.

Moreover, severe health issues have been observed within the community, especially in ethnic women. A Key Informant Interviewee of Satkhira indicated that, “Majority of the women from the ethnic communities work a minimum of eight hours at the shrimp fields where they are exposed to saline water for day long which affects their menstrual health adversely. So, they face birth-related problems”. In addition, the culture and norms associated with nature have also been affected due to climate change along with livelihood. Cancellation and uncertainty of the festivals due to the nor’wester, erratic and heavy rainfall, cold wave, and inability to perform the rituals at the right time due to the changing season abruptly are the significant impacts of climate change on the culture and norms of the studied communities.

As an adaptive strategy to reduce the sectoral impacts of climate change, ethnic people usually borrow money and get support from neighbours and support from local NGOs, and the government. Some people choose alternative livelihood options, such as ethnic people in Naogaon district (Drought prone), who have shifted to mango farming from rice cultivation as mango production requires less water than rice. Some

people migrate to bigger cities for secure livelihood options; however, they move far away from their ethnic culture and conventions by relocating to cities.

Considering the aspects mentioned above, a synergy between ethnic groups, local and national policymakers, local elected bodies, NGOs/INGOs, and other relevant stakeholders needs to be built to advocate for their rights stated in the constitution of Bangladesh, “The State shall take steps to protect and develop the unique local culture and tradition of the tribes, minor races, ethnic sects, and communities” which will ultimately increase the adaptive capacity of ethnic communities. Furthermore, more attention needs to be given by the policymakers, practitioners, researchers, and others to the rights of ethnic communities of Bangladesh, which has been established by the UN system under the UN Permanent Forum on Indigenous Issues (UNPFII). However, Bangladesh ratified several international treaties and conventions, including ILO Convention on Indigenous and Tribal Population 107 in 1972. It is yet to implement this convention’s provisions properly to lessen these people’s suffering. The hardship of ethnic communities was not addressed by the Millennium Development Goals (MDGs). If adequate measures to upgrade the condition of ethnic communities are not incorporated in the implementation and evaluation processes for the 2030 Agenda for sustainable development, there is a chance that the SDGs may once again fall behind. Besides this backdrop, a few initiatives for ethnic communities, such as a ‘Small Ethnic Communities Planning Framework’ formulated by the Finance Division under the Ministry of Finance for the Asian Development Bank and “Small Ethnic Community Development Framework (SECDF) for the “Sustainable Forests & Livelihoods (SUFAL)” formulated by Bangladesh Forest Department was launched. Also, ethnic groups were prioritised while developing a comprehensive National Adaptation Plan (NAP). But still, there is a need for more detailed and integrat-

ed plans and policies focusing on them, which is insubstantial in the policy guidelines. Along with this, some issues need to be addressed to reduce climate change vulnerability, i.e., it is vital to encourage meaningful and regular dialogue between ethnic communities and major players, including the media, civil society, and government officials; youth, men, and especially women of ethnic communities should have access to vocational training and skill development programs. In a nutshell, it is fundamental to develop climate-resilient environmental solutions with more inclusive and participatory approaches to boost the adaptive capacity of ethnic communities to tackle the adverse impacts of climate change. ■

“ The hardship of ethnic communities was not addressed by the Millennium Development Goals ”

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Ethnic women in vegetable cultivation

PHOTO: ABID SHAHRIAR