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■ BRIDGING THE CLIMATE
INFORMATION GAP

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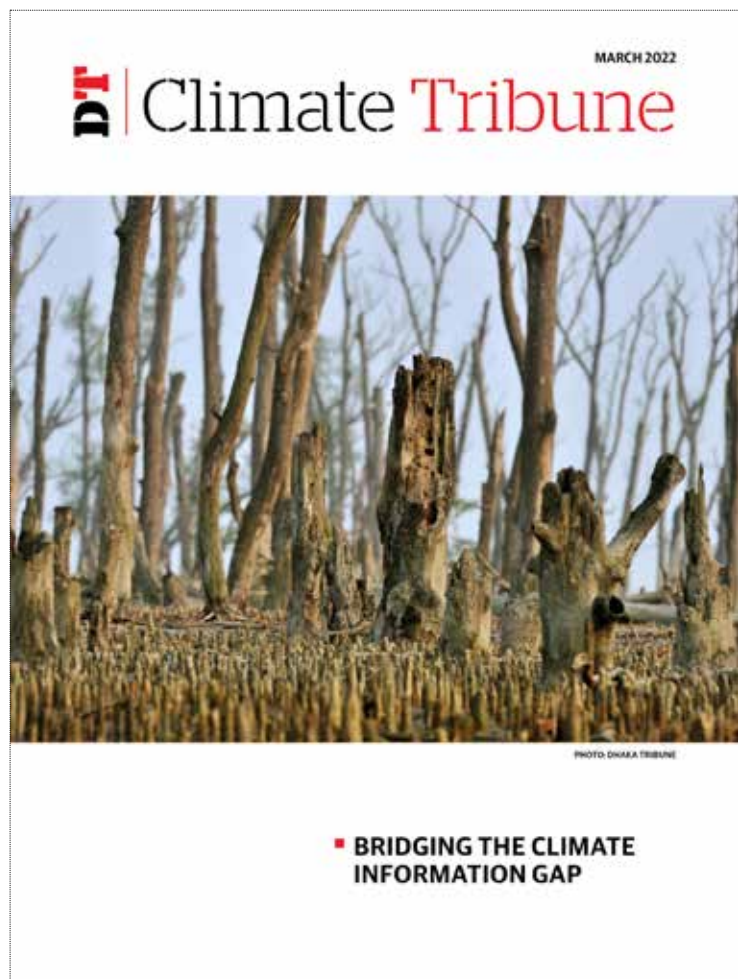
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Women as rightful leaders of the movement to solve the climate crisis



MAHMUD HOSSAIN OPU

Every year International Women's Day (March 8) honours women's accomplishments, while also raising awareness on the issues they face. The day calls for the celebration of inclusion, and gender diversity, recognizing women and girls in all walks of life who are leading the charge to break free of bias, stereotypes, and discrimination to forge women's equality. In the year 2021, the day celebrated the notion #ChoosetoChallenge, reminding us of the need for women's collective efforts to build a better, stronger future.

Due to gender inequities, women must endure an outsized weight of the global warming catastrophe, from drowning islands to cyclonic coastlines, to drought-stricken savannas. Women around the world play traditional responsibilities as major caregivers in families and communities, and as key producers of food and fuel, at most times they are susceptible to climatic hazards such as flooding, cyclones, increasing salinity, and droughts. Additionally, women have less access to resources like land, loans, agricultural inputs, decision-making processes, technology, training, and extension services compared to their men counterparts.

Yet women and girls, who make up 51% of the world's population, are responding more effectively in times of crisis. They are actively fighting to create a more just and sustainable world in every society. Hence, women's leadership and engagement are critical to keeping global warming below 1.5°C. In celebration of their tireless contribution towards our future for the year 2022, the theme of the international women's day has been "Gender equality today for a sustainable tomorrow." The theme this year resonated with the need for change in the narrative of calling women vulnerable.

Why we need to change the narrative to active agents of change

Despite the enormous, social, structural, and economic inequalities that work against women we need to recognize the benefits they bring on board to address climate change.

As a woman myself, working as a climate researcher in the development sector of Bangladesh, I strongly feel that women are powerful change makers because of their lived experience, responsibility, maternal instincts, and strength, which serve as the main resource for their adaptation capacities.

To sum up, here are some of the prevailing reasons on why we need to promote women leaders and focus resources on women who are leading the fight against climate change.

Drivers of action:

Women demonstrate a unique knowledge and skill set when given the opportunity to actively participate in disaster planning and emergency response. This allows communities to recover more rapidly and effectively. The Women-Led

“Despite the enormous, social, structural, and economic inequalities that work against women we need to recognize the benefits they bring on board to address climate change”

Emergency Response (WLER) -- initiated by ActionAid Bangladesh in 2013(after cyclone Mahasen) to advance the leadership skills of women to respond to the disaster has seen tremendous success. Upon receiving training from AAB they have successfully carried out disaster response during Cyclone Amphan (2020), Cyclone Yaas(2021), the 2015 Chittagong landslide, and COVID-19 emergency response(2020) to name a few. Over the years the number of women leaders in WLER increased to 237 women.

Indigenous knowledge:

Over the years women have developed their traditional knowledge and individual abilities in; water collection and storage; food preservation and rationing; as well as natural resource management. Additionally, it is important to understand their reliance on natural resources for livelihood drives their desire to conserve them. These capacities enhance

their resiliency, furthermore, their traditional knowledge of natural solutions to the energy, waste management, and agriculture challenges, making their leadership critical in advancing the implementation of nature-based solutions.

Powerful organizers and managers:

A study by Aaron McCright had identified more women than men in the USA are ‘alarmed’ and ‘concerned’ about climate change and are willing to make sacrifices to reduce carbon emissions (Maron, 2010), furthermore, it is important to realize that more women than man have taken initiatives in leadership roles to design and improve climate change policy. Yet allocation of resources is not representative of such initiatives. In the U.S only 2% of all charitable funds are directed to environmental causes followed by only 1.6% of the philanthropic donations being directed to women’s organizations (Leonhardt, 2019). Despite such shortcomings, female-led networks and initiatives are taking action.

According to a study across 130 countries, nations with significant female representation in administrations are more likely to adopt international environmental treaties (Norgaard, and York, 2005). In 2019 Time Magazine had identified 15 women leaders who are using their voices today to take leadership and call for action on climate change, from the scope and position of policy, science, activism, and locally-led initiatives. One of these women leaders is Christiana Figueres, executive secretary of the United Nations Framework Convention on Climate Change (UNFCCC). In 2015 she successfully steered world leaders to reach the Paris Agreement. Additionally, with a group of notable female lawyers, diplomats, financiers, and activists, Figueres has a successful run in shedding important light on the gender dimension of climate change.

The success of women-driven initiatives from the grassroots, to the global level, is a reminder of how women are providing answers to the problem of climate change regardless of being disproportionately affected by global warming. It is now more crucial than ever that governments, investors, and philanthropists must recognize women as a powerful force for change, driving our communities and the world to a more sustainable future. We must significantly expand efforts to empower women by adequately funding them and make efforts to celebrate the true leaders of the climate-change movement beyond just International Women’s Day.

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Disclaimer: The issue presented, and thoughts expressed in the articles are of the authors, it does not necessarily represent the organization’s mission and program priorities

“ The success of women-driven initiatives from the grassroots, to the global level, is a reminder of how women are providing answers to the problem of climate change regardless of being disproportionately affected by global warming ”

HEAT WAVE

Are we ready to tackle the heat?

TEMPERATURE PEAKS AND HEAT WAVES IMPACTS IN THE BANGLADESHI CONTEXT



MAHMUD HOSSAIN OPU

Savio Rousseau Rozario and Ali Mohammad Rezaie

The global temperature hike is leading to frequent heat waves ($T_{max} > 40^{\circ}\text{C}$ for at least two to five consecutive days) events that have dire consequences on human health and well-being. According to the recently published sixth assessment report (AR6) by the Intergovernmental Panel on Climate Change (IPCC), the global surface temperature from 2001-2021 was estimated to be 0.99°C (0.84°C - 1.10°C) higher than the average temperature from 1850-1909. The increase is 1.09°C (0.95°C to 1.20°C) from 2011-2020 in average temperature compared to 1850-1900. The report also predicts the rise of temperature and intensification of extreme events in the near future.

Rising temperature results in heat waves and an extended period of higher day and night temperature generate cumulative physiological stress on the human body that

aggravates the top causes of global deaths (WHO, 2018). Exposure to higher temperatures also causes public health emergencies, and cascading socioeconomic impacts such as loss of work capacity and labour productivity, and mobility, and exacerbates poverty (Stapleton, 2014; WHO, 2018).

Over the last few decades' anthropogenic activities have triggered the pace of temperature rise by emitting a tremendous amount of greenhouse gases (GHGs) into the atmosphere. A report by Carbon Brief includes that since the pre-industrial era more than 2,500bn tonnes of CO_2 (Gt CO_2) have been released into the atmosphere by human interventions (Carbon Brief, 2021). The excessive amount of GHG in the atmosphere catalyzes the greenhouse effect, and thus the globally extreme temperature events are observed to increase by frequency, magnitude, and duration.

Continuous exposure to excessive heat causes serious health conditions such as heat rash, excessive sweating, heat

cramps, exhaustion, heatstroke, and even death. Multiple studies (Haines, 2021; Bates, 2020; Karmanev, 2014) estimate that from 2000 to 2016 the number of people exposed to heat waves increased to 125 million worldwide, and only in 2015, 175 million additional people were exposed to heatwaves. In 2003, more than 70,000 people died from heat stress in Europe, and in 2010, 56,000 deaths were recorded during a prolonged 44-day heatwave in Russia (Haines, 2021). In Victoria, Australia 374 deaths were recorded due to heat stress-related conditions in 2009 and it is considered that heat waves kill more Australians than any other natural disaster (Mansour, 2021). A recent study conducted by Rutgers University also found that heat stress may affect more than 1.2 billion people annually by 2100 (Dawei Li et al, 2020).

Exposure to extreme heat reduces working capability, especially for people involved in outdoor activities. The International Labour Organization (ILO) predicts that by 2030, 2.2% of working hours worldwide, or 80 million full-time jobs, will be lost as a result of higher temperatures. The rise of temperature and prolonged heat wave events can also impact the agricultural sector as drought conditions prevail and access to safe WASH facilities deteriorates, leading to an outbreak of fatal diseases.

South Asia, a densely populated area is considered to be a “hotspot” for heatwave related incidences. The Indian Meteorological Department (IMD) states that from 1979-2017 the extreme combination of both heat and humidity has doubled in many parts of India, Bangladesh, Pakistan, and Sri Lanka. Besides, it is also projected that by 2100 the average temperature will rise to 3-6C. This rising temperature will result in extensive heat wave conditions which can potentially affect 800 million people in the region. The IPCC regional report also provides similar prediction and projects a high potential for deadly heat waves to become a regular phenomenon in the South Asian region even if global warming is limited to 1.5C (IPCC, 2021).

For the last few decades’ scientific evidence and long-term, climatic records indicate an increasing trend in the frequency and duration of extreme temperature events all over Bangladesh. The North-Western part of the country is particularly vulnerable to heatwaves. A recent study finds +0.012C per/year and +0.370 day/year rate of the increase in annual mean temperature and seasonal dry days, respectively, from 1981 to 2016 in Rajshahi the North-Western part of the country (Karmakar, 2019). The Bangladesh Meteorological Department (BMD) also reports a significant increase in both maximum and minimum temperature over the last 21 years from 1990 to 2010 than in the last 63 years from 1948 to 2010 across the country (Hasan & Rahman, 2013). These heatwave events are affecting the health and livelihood of the people.

In 2003, 62 deaths were recorded from extreme heat (Rajib et al., 2011), and the death toll extended to 3800, in 2008 when eight-day prolonged heat stress occurred in the

country (Gawthrop, 2017). ILO predicts that Bangladesh may lose 4.84% of the total working hours due to heat stress resulting from global warming by 2030 (ILO, 2019). With higher temperatures the scenario is likely to worsen in the major cities like Dhaka, Chittagong, and Rajshahi due to rapid urbanization and “Urban Heat Island Impact” (Dewan et al., 2021). Thus, it has become crucial to develop immediate action plans and respective national and municipal policies to address the heat stress impacts on human well-being and livelihood in Bangladesh.

Heat-related deaths and associated risks can largely be prevented by taking some measures. The WHO has already issued public health guidance for the general public and

“ South Asia, a densely populated area is considered to be a “hotspot” for heatwave related incidences ”

medical professionals on coping with extreme heat (WHO, 2018). To reduce heat-related deaths and associated risks India has introduced the HEWS (Heat Early Warning System) in Ahmedabad (Nissan et al, 2017). Bangladesh can consider taking similar interventions for the major cities in the country such as Dhaka, Chittagong, Rajshahi, and Khulna.

Additionally, the introduction of the Heat Adaptation Plan (HAP) at the city and administrative level, capacity building of the institutions, mass awareness, and knowledge campaigns, and infrastructural and technological development can enhance the overall understanding as well as facilitate necessary measures to tackle the impacts of heat waves in Bangladesh. ■

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Space between disaster, migration, and Covid



MAHMUD HOSSAIN OPU

Afsana Afrin Esha

Taking a walk through Bangladesh's largest government hospital raises a clump of questions in my head-- along with a mixture of many emotions such as sadness, fear, and doubt -- doubt being more prominent among others. But my vortex of personal emotions is quickly subdued by the emotions of the people who are giving their all in battles of their own. This is the place where the poor resort to, for all sorts of health issues and major accidents. If emotions could take up space, I would imagine this place to be the heaviest place in our society. The hallways have heard the most agonizing cries and felt all sorts of heartache. My pen would not be able to lift and portray the burden of the many grown-ups suffering there, so I share with you the story of little Asiya. Although her burdens are not

“ We are always told to look at the bright side of things -- what happens to us, our circumstances, our fate ”

small, her smile was the biggest for me to hold on to.

The city of Dhaka can be a baffling place for someone who has come here for the first time. Huge urban centers, rapidly moving vehicles, populated roads, high pedestrian walking speed, everything seems faster than normal. Adjusting to the city itself can be a very daunting task. Little Asiya and her family moved here from Paikgacha on June 27. But this was not a happy migration. The cyclonic storm Yaas created havoc in their area, destroying their home and means for sustenance. In Dacope, Koyra and Paikgacha 60 km of embankments, over 1,000 houses and 200 fish enclosures have been destroyed. Asiya's family was dependent on agriculture and fish cultivation for their livelihood, but most of their trees were uprooted, their properties destroyed and agricultural land inundated with saline water, leaving it unsuitable for cultivation. Yet, her family held on. Asiya's father is a man of hope, and like many people suffering the consequences of disasters, he tried to hold on to his hometown. But their house was no longer suitable for living with food and drinking water supplies from NGOs running out faster than anticipated. And once they took support from one NGO, it was almost impossible to get more. After struggling for days without proper food, shelter and water, Asiya's family had no other option but to migrate. Asiya's father tried his best to retaliate but gave up against his enemies, which were only becoming stronger, against their weak bodies.

With a heavy heart, the family decided to move to the city of Dhaka, for a better future or- any future at all. Although they knew very well how risky it was to be here due to the coronavirus, they were left with no option. There is a general consensus that migration reduces rural poverty and contributes to the improvement of household living standards. But this was yet to be true for them. Asiya and her family moved to her aunt's house, who was struggling with financial issues herself. But seeing the family's despair, she took them in. They worked very hard amidst the pandemic

and were eating hand to mouth until the nationwide lockdown in July made it even more difficult for them. Throughout July, Bangladesh recorded its highest daily deaths and new cases. But for them, this was an unbending situation. Going out for sustenance was terrifying but so was sitting at home being a burden to another. Asiya's mother and father risked their health daily and still went outside to look for ways of earning, working as laborers and doing household work. Works such as these were also very scarce as the general people were afraid of being affected. But both Asiya's mother and father worked relentlessly and did not give up their efforts, despite countless failures. Ensuring food for their family was their top priority. They knew the horror of hunger and did not want their children to face it. But luck did not favor them. Soon after their frequent visits outside, Asiya's father was infected by the coronavirus.

We are always told to look at the bright side of things -- what happens to us, our circumstances, our fate. However, there seems to be no bright side to this story. They are suffering the consequences of the three heavy burdens all at once -- covid, disaster, and migration. I wondered how the little girl's heart felt, being stranded in an unknown place away from home, living in the hallways of a crowded hospital, with no privacy and no safety from the coronavirus. I wondered how she could still smile, so I asked.

“Why are you smiling?”

“We got a packet of milk from the hospital which tastes exactly like the milk from our cow Sriti,” says Asiya with the shiniest sparkle in her eyes.

I couldn't help but smile too. ■

Afsana Afrin Esha is a researcher at Institute of Water and Flood Management, BUET. Her current research work focuses on water security issues in the coastal regions of Bangladesh. She is one of the selected participants from Climate Resilience Academy for LDCs Program by ICCAD and GRP.

Can we bridge the climate information gap through co-production?



PHOTOS: MAHMUD HOSSAIN OPU

Farah Anzum and Tasfia Tasnim

While Bangladesh is being labeled as one of the most climate vulnerable countries in the Global South, the country has adopted a proactive approach to develop its policies related to climate change adaptation. However, still many decision-makers lack the knowledge and skills to apply and interpret available past, present and future climate

information that can help with local adaptation and decision-making. Thus, effective climate action must discover ways to integrate scientific and practice-based knowledge on climate information from diverse stakeholders.

Approaches like co-production have a growing trend in climate change research -- where diverse knowledge sources and experiences are combined to develop new and integrated information to support specific decision-making circumstances better. Co-production is the intentional



collaboration of diverse individuals toward a common aim. It examines how science and society continually shape one another. Co-production of climate services has been promoted in recent years because it has the potential to minimize the divergence between the climate information generated by the scientific community and what users require to make climate-resilient decisions. Additionally, it can enhance the quality of weather and climate services and promote their increased use in various decision-making processes across numerous sectors.

In recognition of the critical need for coordinated worldwide efforts to adapt and deliver evidence-based climate adaptation solutions, the Adaptation Research Alliance (ARA) was launched during COP26 as part of the UK COP26 Presidency Adaptation & Resilience campaign. ARA is a new worldwide alliance comprised of over 100 organisations across 35 economies. ARA believes that there is a greater need for a new paradigm of action-oriented research to guide successful adaptation to mitigate the dangers of climate change, particularly for the most vulnerable countries and people.

The worldwide research community is often not correctly connected to the governments, communities, and marginalized people. Hence, demand for actionable knowledge and practical solutions significantly outstrips supply. Speeding adaptation efforts require evidence-based solutions customized to local circumstances and peer-to-

peer sharing and co-production among all stakeholders. ARA strives to address such a gap through co-create, developing, and identifying solutions to catalyze and scale investment in action-oriented research driven by user requirements. Additionally, ARA would ensure that climate-vulnerable countries not only become resilient but prosper through systemic transformation. That research is fundamentally collaborative, southern-led, and produces long-lasting, real-world answers.

One such collaborative initiative titled “Bridging the climate information gap for adaptation: Integrating climate services into higher education in Bangladesh,” was put forward by the International Centre for Climate Change and Development (ICCCAD) under the umbrella of Bangladesh Academy for Climate Services (BACS) with support from ARA. The International Research Institute for Climate and Society (IRI) -- Columbia University’s Climate School, the International Maize and Wheat Improvement Center (CIMMYT), the Bangladesh Meteorological Department (BMD), and five public and private universities from Bangladesh are also collaborators in this initiative. The project aims at co-creating climate services content that will aid in bridging Bangladesh’s climate services knowledge gap through transdisciplinary collaboration between several universities in the country, ensuring that young people trained in all climate-sensitive sectors can utilize all available information to increase their resilience.

“ It has been observed that despite the World Meteorological Organization’s acknowledgment of the critical role of climate services in supporting adaptation, climate services have yet to be included in any official policy documents and are absent from the majority of higher education programs ”

It has been observed that despite the World Meteorological Organization’s acknowledgment of the critical role of climate services in supporting adaptation, climate services have yet to be included in any official policy documents and are absent from the majority of higher education programs. Additionally, discussions with Bangladeshi professors revealed an interest in receiving instruction and collaborating on developing such modules that are contextualized for the Bangladeshi setting. Hence, a co-production approach was taken to fill this gap and build climate services content relevant to Bangladesh for the partner universities to train the future minds.

On March 16, 2022, a workshop was held as part of this project to co-produce the climate services content with the participation of partners, university professors, and experts. To begin, participants were introduced to the concept of climate services. A group exercise was conducted to ascertain participants’ comprehension of the four pillars of

climate services (generation, translation, transfer, and use) and the various time scales associated with climatic data. They were given scenarios involving multiple individuals, such as farmers, insurance providers, NGO workers, and engineers and told to relate those individuals using various timelines to perform their jobs and take decisions efficiently based on their information requirements. Through group discussion, academics demonstrated the multiple demands of individuals, such as how an insurance provider requires historical data to understand the context of a place and both real time and long-term data to design an insurance product. Then an interactive session with the Bangladesh Meteorological Department was held to learn about their climate and meteorological data and other products.

Following that, another round of group work was conducted to select the priority topics and contents collaboratively. Professors discussed their existing and desired courses, and every one of them voted to represent the priority courses as per their understanding of the academic requirements. These courses were then classified into four “climate services” pillars and one “cross-cutting” column. All academics reviewed the most important topics and devised their learning outcomes. Then a discussion was held to clarify the competencies and virtual learning environment for this course curriculum. They outlined the necessary background of potential students, the course credits, scholarships, or fellowships requirements. Diversity and inclusion criteria were also explored to explore the gender dimensions around the climate services topics.

Several topics and courses were identified as priorities for teaching students on climate services in Bangladesh as a result of the above co-production method. It showcased the diversity of personnel, knowledge, and willingness to initiate climate services curricula into their academics. Employing this to universities’ future curricula development would help the students and learners with advanced knowledge on climate science who can connect that when working in various other sectors. However, still a long way to go to make the actual integration of climate services into the university curriculum. Co-production can assist in identifying present and future job market needs, which will help develop the educational curriculum for the next generation. Investing in training young minds would undoubtedly benefit the future learners, and they will be able to contribute to make this country a prosperous one. ■

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DUYTI TASNUVA RIFAT

Success story from the informal settlements of Bangladesh

Informal settlements emerge and flourish globally, although they are still primarily found in developing countries' metropolitan areas. Economic stagnation and despair, excessive unemployment, natural disasters, and social disputes have caused many people to migrate from rural to urban regions. Different strategies, including clearance, relocation, upgrading, urban development, and public housing, are used in other nations to eliminate and conceal informal settlements.

Bangladesh has roughly 5.3 million informal settlers and approximately 164.69 million people. More than 93% of informal settlements are very crowded, have poor environmental conditions, and have poor housing. Due to rapid rural-to-urban migration, lack of adequate and timely initiatives, government institutional weaknesses, the urban poor's face the difficulty to get affordable land for houses, and unstable land tenure are all driving forces behind informal

“Behind every successful story, there are some stories where 100 others cannot ensure their tenure security and 100 people deprived of their essential services”

settlements growth. However, Bangladesh will face many more problems in the future, including migrating rural-to-urban areas for living and working opportunities.

A man who had migrated from Kalapara (Barisal) started living at signal tower colony (Ratarati), an informal settlement, with his whole family in Mongla Pourashava in 1990. Even though he got a piece of land illegally occupied and built a house for living. But he was constantly living in fear of being evicted at any moment. Mongla is the second busiest port in the country, located in the southwestern part of Bangladesh. People come to this place because of the opportunities for their livelihood and the lower cost of living.

In the Kalapara Upazila natural disasters such as cyclones and storm surges are most common, sometimes severe river erosion occurs. The primary source of income in this upazila are agriculture and fishing. Due to the working opportunities and the lower cost of living, the push factors that forced him

to migrate were losing their property due to severe river erosion and fewer income options. So, after that, in Mongla port, initially, he worked as a day labourer on a small ship, and a couple of years later, he became a watchman on that small ship. And from that point on, he steadily raised his standard of living and began saving because he wanted to go wherever there was tenure security.

After working for a decade, he bought a piece of land and became the owner of that land with legal documents. Then he left the informal settlement and started living on his legally documented land, where there was no fear of eviction. He could connect with legal grids and services such as housing, water, sanitation, and energy. After all, it was the story of an informal settler who was deprived of essential services for several reasons, including the legal status of the land.

In Bangladesh, most informal settlements are located on private individuals and only 21.6% government and semi-government owned land. The national policy plan has mentioned housing in Bangladesh's long-term Perspective Plan (2010-21). It has also developed a concept of 'an urban village' for the poor or low-income, including all essential services. However, Strategies for sustainable solutions, informal settlers must access all essential services until they are rehabilitated at suitable locations considering their livelihood opportunities despite their illegal land ownership status (2012). National Housing Policy (2016) documented equitable living standards and affordable prices to ensure suitable housing. In disaster prone areas institutional, technological and financial support are given to reduce disaster risk in housing. It also mentioned housing for the informal settlers will be given priority during land allocation and through construction of infrastructure and financial support. Bangladesh's long-term plan (2021-2041) addresses people living in informal settlements who do not have access to essential services and will eliminate inequalities and leave no one behind.

This can be identified as a success story to overcome the struggles and achieve legal status and quality living standards. Behind every successful story, there are some stories where 100 others cannot ensure their tenure security and 100 people deprived of their essential services. Apart from that there are another 100 people who are migrants from rural-to-urban areas for livelihood, meagre income, river erosion, uprooting and others.

However, as the above story shows, some try to get out of their situation by securing a stable job, saving up, and moving out of the informal settlement in a few years. So, maybe access to a stable and secure job opportunity encourages/influences the informal settlers to seek legal housing status. ■

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Swapnorath organization participating in the construction of river dams

COURTESY

The background of the youth struggling with the disaster

Vaskar Mondal

I live in a very remote area of Bangladesh, in the Burigoalini Union in Shyamnagar. The people of this area face the impact of cyclones and river erosions every now and then. These cyclones worsen river erosion and continue to wreak havoc on the lives of those who live here. The most recent, Cyclone Amphan 2020, was devastating for the region and no area was spared from its effects. Numerous people's houses, paddy, ponds, vegetable farms, and shrimp farms were damaged. The majority of the people's livelihood depends on shrimp farming, but their work is disrupted by erosion, inundation of waters, and cyclones.



Tree planting program in the aftermath of Amphan cyclone

COURTESY

River erosion caused by repeated cyclones is plaguing the people of the area.

A ray of hope in my area is the youth volunteers who have been tirelessly working to build resilience in the region since Cyclone Amphan, 2020. 16 young individuals, ranging in age from 18 to 30, are working in the Swapnorath Organization (SR), which was founded shortly after Cyclone Amphan. Together with the organization I was able to teach the people of the area to deal with the river erosion and other environmental problems through a variety of adaptation strategies. These young people have devoted themselves to the service of their communities, including the tackling of various issues related to climate change.

It can be said that our organization has played a pioneering role in raising the awareness of the people of the area and

taking the elderly, children, and women to the shelter. The funding of the organization comes from contributions made by the organization's members. The organization took a number of initiatives after the cyclone.

Many trees were damaged as a result of Cyclone Amphan. With the support of the forest ministry, we planted 350 salt-resistant coconut seeds at the time. Many people in the area are afflicted with various diseases, and they have received financial assistance in this regard from them. We have an issue with pure drinking water because the area has a salinity problem. The youth organization has arranged access to clean drinking water (5000 litre drums). Owing to the fact that many children are unable to receive an education due to poverty, the youths have provided private tutors to encourage them to study.



The Swapnorath organization extends a helping hand to the people affected by Covid-19 and Hurricane Yaas

COURTESY

“ This youth organization is an example of the local ways that the youth struggling with disaster in the Sundarbans are working towards change and a brighter future ”

River erosion occurs in the aftermath of any type of calamity. We came together after sensing a need, noticing that when the locals face any river erosion, the government is not able to take immediate action as needed. During that time, the government requires two-three days to take action. At the time, all of the youth volunteers as well as all of the individuals in the area, worked together to prevent river erosion.

Although there is insufficient budget for the construction of the dam, it takes a minimum of four to five days to start the work. And if the dam is not repaired within these four to five days, it will cause huge damage to the locals. To this end, the local youth came together and encouraged all the people of the area to take the lead in constructing the dam.

In addition, a large number of trees and houses were damaged in the area during cyclone Amphan 2020. Locals also suffered financial losses due to the coronavirus coupled with the devastating Yaas that occurred in 2021. The only reason

for this is the inability of the locals to work outside. The youth volunteers tried to help some of the helpless people with whatever limited resources they possessed, through which the locals found some relief and hope.

In conclusion, this youth organization is an example of the local ways that the youth struggling with disaster in the Sundarbans are working towards change and a brighter future. The youths have plans to provide climate change adaptation training and financial assistance to the inhabitants of the area in the future. Above all, their only motivation is that they have always been, are, and will be by the side of their people. ■

Vaskar Mondal lives in Burigoalini Union in the Bangladesh Sundarbans. Vaskar has recently begun working with a local NGO, Caritas, and is a founding member of a Sundarbans Youth Resilience volunteer collective called Swapnorath Sangathan. This work inspired him to write about climate change from the ground, how it is affecting him, his family, and his community.



MAHMUD HOSSAIN OPU

A ceaseless cycle of debt

FINANCIAL STRUGGLES IN THE COASTAL REGION OF BANGLADESH

Roshni Islam and Adiba Bintey Kamal

People in the coastal regions of Bangladesh are stuck in an unending cycle of having to rebuild their lives destroyed due to recurring flooding and cyclones. The affected people have been running on credit to get back on their feet and struggling to settle while their living conditions are being threatened every time there is a flood or cyclone.

The existing financial struggles of the marginalized are made worse for the people in the coastal regions. Because of the geographical location of this region, people are more prone to the impacts of floods and cyclones.

The continuous cycle of cyclones in this region has made the life of the people more miserable. After the cyclone Aila in 2009, many of the affected families had to start over due to the loss of their houses and livelihoods, rebuilding everything from scratch. Some people have survived after cyclone Aila but then again are affected by cyclone Amphan 2020. The loss and damage from cyclones is still going on and making the lives and livelihood of the people more miserable day by day in this region.

Uday Mondol from the village Kultoli in Sathkhira has spoken to the Tapestry research team about his struggles to save money due to loans he had taken out to fix his house during cyclone Amphan: “Before Amphan, I repaired this house with a loan of Tk65,000. But during Amphan my house broke down once again, and I repaired this house by spending about Tk65,000 to Tk70,000 again.”

Floods and cyclones during the harvesting season have impeded the crop harvesting which is one of their main sources of income. Saltwater intrusion and waterlogging caused by the repeated flooding has destroyed their seeds and arable lands. “We are suffering a lot due to repeated floods. But we used to have good finances. We used to be able to repay the loan taken from people by cultivating paddy very easily, which we can’t do now,” Tumpa Rani from kultoli told the Tapestry team. Tumpa Rani’s house was destroyed due to Amphan and then again by cyclone Bulbul. When asked how she managed to fix the house, she told the team about taking out loans and struggling to pay it back.

The situation is not limited to the destroyed houses; but sudden medical treatments of family members force them to fall into debt again. The treatment facilities are not accessible to many of these areas due to poor development planning and commute system. Multiple respondents have spoken about broken roads being a barrier to access the treatment facilities and cyclone shelters. “We are suffering a lot due to repeated floods. But we were good financially. We used to be able to repay the loan taken from people by cultivating paddy very easily, which we can’t do now,” Selina Begum from Datinakhali, Sathkhira, Shyamnagar, Khulna told the team.

The struggles of repaying the debts have been doubled down due to the lockdowns being imposed because of the Covid-19 pandemic. Unable to cultivate crops for themselves, many of them must buy or sell goods on credit from the market and work as a day laborer to repay the debt. With the increasing price of the goods in the market, this cycle of borrowing money and earning day to day just to repay the debt leaves them in no position to invest or save money for the future.

“There has been a lot of trouble. Many times, if we would manage to eat one meal, we would stay hungry twice. Sometimes if we could manage two meals, then we would stay hungry another time of the day. There is no certainty that my family would get a full meal for the day. We feel like uncertainty is connected with our life,” said Selina Begum from Datinakhali, Sathkhira when asked about her struggles due to the lockdown.

When asked about developmental programs and aids from the NGOs and government officials, many of the respondents have expressed that the communication was more effective from the NGO officials after any disaster events. Most people suffering from repeated disasters have asked for a stronger material for building their house so that it can withstand

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the flooding and storms, like bricks and cement based raw materials. “If my house is repaired and turned into a brick made building, then I can live peacefully. Because every year the house gets damaged due to disasters. It takes Tk60,000 to Tk70,000 to repair the house every time. But it is not possible to manage this huge amount repeatedly,” said Horen Munda to the team.

Houses made of bricks and cement can play a pivotal role in reducing the risks and financial debt of the local people. Most of the respondents stated that if they get a strong house then they won’t have to take any loan for repairing it after any disaster and it will save money. Alternative livelihoods would open a new window of hope for the locals as agriculture is no longer practiced in this region due to salinity.

If a more sustainable approach is taken while rehabilitating the people affected in the coastal region, while helping them to come out of the debt trap, it will be a long-term solution for people trying to reset their lives. ■

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