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Climate Tribune



Nature-based solutions by people of nature

The synergy between Nature-based Solutions and traditional knowledge of indigenous peoples can be an important tool for managing climate change

Afsara Binte Mirza, Anika Binte Razzaque, Savio Rousseau Rozario

Nature-based solutions (NbS) are defined as actions that protect, sustainably manage and restore natural or modified ecosystems in methods that tackle societal challenges, maintain human well-being and enhance biodiversity (IUCN, 2016). NbS is gaining traction for offering numerous practices that decrease greenhouse gas emissions or increase carbon storage, causing the net removal of carbon dioxide from the atmosphere, and halt climate change.

It is estimated that by 2030, NbS could provide 30-40% of the CO₂ reductions necessary to facilitate the process of keeping a global average temperature of 2° (Seddon et al, 2019).

The Intergovernmental Panel on Climate Change (IPCC) also acknowledged the synergy between biodiversity conservation and the reduction of carbon emissions to address climate change mitigation (IPCC Climate Change and Land Report, 2019).

Most crucially, the IPCC recognized that indigenous peoples and local communities (IPLCs) can play a fundamental role in addressing climate change. Consequently, a group of indigenous peoples from 42 countries affirmed in response, “Finally, the world’s top scientists recognize what we have always known...that strengthening our rights is a critical solution to the climate crisis” (IPCC, 2019).

Indigenous peoples and local communities contribute to climate change mitigation by the preservation of their forestlands that act as a carbon sink, absorbing and storing tons of atmospheric carbon annually.

A study by Frechette et al (2018) estimates that at least 17% or 293,061 million metric tons (Mt) of the total carbon stored in the global forest lands are managed by the indigenous peoples and local communities.

The study also includes that the indigenous governance can help to safeguard nearly one-fifth of the total carbon sequestered by tropical and subtropical forests (218 Gigatons) since they encompass 40% of the protected areas. Indigenous peoples in particular, manage a significant part of the Earth’s most biodiverse regions, conserve lands, seas and maintain sustainable use of their natural resources.

They nurture strong economic, cultural and spiritual relationships with their natural environments. However, the geographical regions and natural

ecosystems, where the indigenous peoples reside, are prone to the effects of climate change; making them vulnerable to the impacts of natural disasters. Indigenous peoples also face discrimination and exclusion from social, political and economic power, which hinders their capacity building and resilience.

To adapt to the changing climate and environment, indigenous peoples have been developing practices based on their traditional knowledge. For example, in the Sahel region of Africa, indigenous communities utilize water harvesting techniques for climate adapting to climate change. This technique is known as ‘zai pits’ or ‘tassa’ which helps restore degraded drylands through climate-smart agriculture.

The Kalasha indigenous community in Pakistan, apply their traditional knowledge known as ‘Suri Jagek’ (translates to observing the sun) and regularly plan harvests and protect livestock.

This early warning system reinforces

knowledge has been passed on by the elders and helped the indigenous people to promote Nature-based Solutions with great potential for adaptation strategies at the local, national and global levels.

Furthermore, traditional ecological knowledge of indigenous peoples and local communities have been maintained through oral history and practices, for years (Shanley and Galvão, 1999).

For example, conserving ecosystem resilience through shifting cultivation systems to maintain forest coverage, and intercropping two or more crops in closeness to increase plant diversity are well-known applications of traditional ecological knowledge.

Additionally, indigenous communities such as Khasia, and Manipuri in the northeastern region of Bangladesh have been involved with various types of sustainable agroforestry systems.

Mixed culture of agroforestry and agriculture farming by the indigenous

preservation of natural ecosystems, advance food security, increase carbon storage and reduce emission.

Recognizing indigenous peoples contribution to address climate change and conservation in relevant sectoral, national and global policies can also lead to conflict resolutions, boost ecosystem and socio-economic resilience (UNEP, 2019).

Hence, securing indigenous peoples’ rights to conserve their lands and increasing their capacities and making them financially self-sustainable can establish and meet the criteria of Nature-based Solutions.

For instance, the World Wildlife Fund (WWF) has initiated People Protecting Landscapes and Seascapes (PPLS) initiative in 2020, with an inclusive conservation approach, which seeks to achieve systems change and acknowledge IPLCs’ vital role as nature’s custodians.

WWF and International Centre for Climate Change and Development (ICCCAD) is working collaboratively to conduct research on advocating for the recognition of the indigenous peoples’ rights and their role in implementing Nature-based Solutions for tackling climate change.

Furthermore, evidence and action-based research (drawing on successful domestic and international examples) to scientifically evaluate the efficacy and sustainability of indigenous practices can explicitly identify for indigenous people’s leadership in Nature-based Solutions.

A harmonious synergy between Nature-based Solutions and traditional knowledge of indigenous peoples can kick-start us through a new pathway toward saving this world from the devastating impacts of climate change. ●

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Finally, the world's top scientists recognize what we have always known...that strengthening our rights is a critical solution to the climate crisis

the community’s ability to adapt and sustain their livelihoods, in the midst of uncertain times. Similarly, the indigenous communities in the Middle East and Northern African regions make shelters from mud and other local materials during the summer.

These communities are exploiting their traditional knowledge to protect themselves from extreme heat and adapting to climate change (Harper et al., 2020). Therefore, Indigenous communities hold a unique position in disaster risk reduction, climate change mitigation and adaptation practices.

Indigenous traditional knowledge also maintains balance, respect and harmony amongst human beings and nature, and enhances resilience in the face of climate change. The mechanism of traditional knowledge aims to have a minimal impact on the environment and promote self-sustaining ecosystems and biodiversity (Hosen et al, 2020).

For generations now, traditional

peoples in Bangladesh are perceived as the sustainable strengthening of cultivation, where yields get increased without adverse environmental impact and cultivation of more lands (Nath et al, 2016).

These diversified farming techniques and sustainable lifestyles can effectively enhance societal resilience and the harmony between human and nature. Nature-based Solution is inevitably present where traditional and sustainable uses of natural resources are practised (IUCN, 2020).

The intersectional approach by Nature-based Solutions accounts for different types of knowledge systems and worldviews rooted in traditional ecological or indigenous knowledge.

Unfortunately, due to lack of recognition, indigenous peoples’ traditional knowledge is on the verge of extinction. Enhancing efforts to minimize this gap and securing tenured community land rights can result in restoration and



A tough bargain

Climate negotiations have been a challenge for the LDC group due to various factors, but the situation is slowly changing

Noshin Saiyara and Mizan R Khan

Climate change impacts are mostly defined by an increase in global mean temperature, affecting ecosystems and communities with increasing droughts, floods, cyclones, melting of glaciers, and increased sea level rise globally. The Least Developed Countries (LDC) are the most vulnerable victims, who emit the least emissions and who also have the lowest adaptive capacity.

LDCs are a group of nations defined by the UN as a group of countries listed in November 1971, based on three criteria - low per capita income, high economic vulnerability, and weak human

assets which are essential indicators of nutrition, health, school enrollment, and literacy rate.

Currently, the LDC group comprises 47 countries, which are a wide variety of nations - 9 countries from Asia, 1 country from Central America, 33 countries of the African region, and 4 countries from Oceania.

The UN Framework Convention on Climate Change (UNFCCC) adopted at the Rio Earth Summit held in 1992 recognized under Article 4.9 that the parties to the Convention would need to take full account for the specific and special needs of the LDCs with regards to the transfer of technology, funding, and other supports. The Paris Agreement also offers preferential treatment

to the LDCs in supporting their activities, particularly for adaptation.

Under the UNFCCC process, parties to the Convention negotiate as groups. Initially, the developing countries formed the G77+ China (as an associate member) negotiating group, and this bloc led negotiations with the developed country parties.

However, during the first decade of the Conventions life, it was evident that the major developing countries, such as China, India, Brazil, South Africa began to lead, mainly projecting their own needs, which were found to be somewhat different from the needs of the LDCs and the small island developing states (SIDS).

Though the major developing countries are also affected by climate change, their prime interests were mobilizing support for mitigation and promotion of renewable energy. On the other hand, the LDCs, for example, are primarily concerned with climate change impacts and the need for adaptation.

With their adaptive capacity being extremely low, they needed financial and technological support from the developed countries. Gradually, it was evident that in the negotiations LDCs needs were seldom prioritized within the G77 where the bigger developing countries dominated.

As a result, during 2000-01, the LDC group was formed as a separate negotiating bloc, though they still continue to remain within the G77. This allows the LDC group to influence both the G77 group and also act as an independent voice projecting the real concerns and needs of the LDCs.

In the seventh session of COP in 2001, the LDC needs were highlighted and a separate LDC Work Programme was adopted for implementation. With two other funds, COP-7 also established the Least Developed Countries Fund (LDCF) to specifically support the LDC Work Programme. The LDCF also pledged to support the implementation of the preparation of National Adaptation Programmes of Action (NAPA). In 2005, COP-11 mandated the LDCF to fund the NAPA implementation.

However, climate negotiations have been a challenge for the LDC group due to various factors. For example, the negotiators and delegates who engage in dialogue are often required to cover not just issues related to climate change, but also to many other environmental concerns.

The challenges faced by the LDCs are institutional, financial, technical, and human resource constraints. The LDCs have faced under-representation, however gradually, they have been able to

increase their representation and clout in the negotiations.

The leadership in the LDC group is rotating among the African and Asian regions. The current Chair of the LDC group is Sonam Phuntsho Wangdi (Bhutan). Since 2001 International Institute for Environment and Development (IIED), a think tank in London, has supported senior LDC negotiators through organizing capacity-building workshops, supporting the enhanced representation of LDC negotiators, providing logistical and administrative support, and helping establish an online presence for the group.

The key strategies utilised by the LDC group within the negotiations are as follows. Firstly, group activation and engagement have led to greater coordination among LDC countries and increased the mode of effective participation in deliberations with UNFCCC.

Secondly, the role of Chair with improved institutional memory of past negotiations and concern has led to a greater presence of powerful political figures of LDC nations. Both of these strategies have ultimately enabled a critical mass that has garnered an increased endorsement of LDCs positions in climate concerns.

Thirdly, the LDC group with other like-minded groups, such as the Small Island Developing States (SIDS) work effectively with the EU bloc, the progressive group of the developed countries, which have been able to turn their combined voices across the corridors at the COPs. Finally, the increased media visibility has led to better clarity of the LDCs position and outreach with other negotiators that managed to catch the eye of international media.

One example of their political sway in the negotiations is reflected in the global acceptance of an aspirational goal of not allowing the increase in global temperature to more than 1.5C under the Paris Agreement.

A submission led by Nepal on behalf of the LDC group for the 2015 agreement argued that if the global mean temperature reaches its 3.5 to 4C prediction, adaptation will not be feasible for vulnerable nations due to their exposure to sea-level rise or shortage of production of food. This example reflects the LDCs' ability to collectively build power and influence the negotiations.

The Paris Agreement also recognized the need for increased funds and the importance of loss and damage for LDCs, which was a key issue for them. The funding for loss and damage was a topic that lacked agreement from developing and developed countries.

However, COP25 held in Madrid in



Though the major developing countries are also affected by climate change, their prime interests were mobilizing support for mitigation and promotion of renewable energy

2019 requested the Global Climate Fund (GCF) and the Global Environment Facility (GEF) to increase their funding for projects related to Loss and Damage (LnD). Despite the lack of continued funding directly for Loss and Damage compensation.

In conclusion, despite being vulnerable, and lacking both funding and resources, the LDC group has been quite successful in the UNFCCC negotiations. However, they still face many challenges including their capacity to negotiate because of their small size of the negotiating teams.

The group, however, needs to do more homework on each and every agenda of the UNFCCC. One of the positive developments is that the current Chair of the LDC group represented by Bhutan is very active in promoting the LDC causes. But this is still an endeavour that needs combined effort and LDC will need more support from the developed countries. ●

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Indomitable women in the face of adversities of nature

40% of the southern part of the Kurigram had been devoured by the river over the last decade



Sumitri Rani, earthen flower artisan from Chilmari Upazilla

Dilruba Haider

“Please give us work, so that we can cope with floods ourselves instead of asking for help from you every year”, “Can’t marry off my daughter; she isn’t 18 yet, although I am worrying how to feed my family tomorrow”, these were some of the utterances of the women, in front of a high-level mission led by the United Nations Resident Coordinator on October 18, 2020.

The women from Chilmari Upazila of Kurigram District, wearing shabby, torn clothes, with eyes filled with fear of complete uncertainty, battered four times with monsoon flood on top of Covid-19, were talking to the mission members at a courtyard meeting.

The monsoon floods this year affected 21 districts of Bangladesh, affecting 3.3 million people including 1,701,930 were women and girls and 84,195 “female-headed households,” according to data by ReliefWeb. These women are the most vulnerable group to food insecurity, gender-based violence, and inaccessibility to essential services.

Kurigram is a district that is flooded every year to varying degrees. The Union Parishad chairman of Raniganj Union of Chilmari Upazila said 40% of the southern part of the District had been devoured by the river over the last decade and most of those homeless people are living on embankments, or with their neighbours, or have rented tiny piece of land to erect some sort of makeshift shelter.

Many families in the southern part of Raniganj were still living on embankments. Most of the families said that they had to take shelter in the open on embankments and high roads during the flood, as there were limited spaces in flood shelters or they were located too far away within the Union. Women spoke of sleepless nights trying to protect their adolescent girls from potential perpetrators, under the open sky.

Most of the latrines were washed out or crumbled, which makes the protection aspects of women and girls even more precarious. Although the women claimed that there were no known cases of violence against women during the flood in their locality, they all agreed that Covid had significantly increased the incidents of domestic violence, which they thought was ‘only natural.’

“My children ask for food to me and I ask my husband to bring food. He gets mad and I face verbal abuse,” said one woman, tearfully adding “I couldn’t



My children ask for food to me and I ask my husband to bring food. He gets mad and I face verbal abuse," said one woman, tearfully adding "I couldn't give my children a single good meal for the last two months



Anju, used to work as labor cutting earth, is now workless for months with two sons

give my children a single good meal for the last two months".

Family members who were working in cities and towns have come back home; there's no work at the village. Bebi Khatun's husband was working in a garment's factory in Tongi who lost his job at the beginning of the Covid crisis and is now sitting jobless at home.

Bebi also used to have an income from tutoring madrasa children. But that's now gone too. Schools are closed, and parents don't have money to provide private tuition.

There's no work in the field during the Bengali months of 'Ashwin'/'Kartik'. Vegetable gardens are all gone, food price has skyrocketed as another cruel blow to these impoverished communities.

Some of the women borrowed money from money lenders on exorbitant interest rate; Tk150 for Tk1000 per month! Others sold their assets: everything from trees, cows, calves, goats, big pans to boiled paddy.

The poorest women we talked to didn't have jewellery to sell. Sumitri Rani, the widow, makes earthen flowers for idol worship and sells those, which hasn't been bringing her enough income this year as Covid and flood have shattered the local economy.

She has two adolescent girls and she is in constant anxiety about their future. Shahzadi Begum used to grow gourds and pumpkins on sacks of soil as she doesn't have any land; the flood destroyed it all.

Shorifon Begum, the sharecropper

did vegetable in two kathas of land which has all been gone in flood. Anju, an abandoned woman, used to live on soil digging work. Since the Covid outbreak and the recent flood, she has had no work for months and is struggling to survive with her two sons.

UN Women provided cash grants to support these flood and Covid affected women, which they used for buying foods, medical treatment of their family members, buying small goats, poultry, ducks. During the repeated floods many of those poultry and ducks were lost.

The government gave Tk2500 cash as Covid relief and 10kg rice to the flood-affected families. Not many got these supports though. When asked about the priority needs, the ill-fed, utterly distressed women said what would benefit them really is food for two months to see them through the period of 'no work' and work opportunity. They didn't ask for cows as there is a real crisis of fodder. Straw is sold at Tk1500 for 100 bundles, which they simply can't afford.

The UP chairman and members, who are in the Union Disaster Management Committee, sounded helpless. They do not have any contingency plan or funding with which they could support the affected people; they only wait for the central government to allocate resources for that.

Following are some recommendations for the recovery of the flood crisis in a gender-responsive manner:

Collect sex, age and disability disaggregated data on the flood impacts and

conduct a gender analysis of the flood impacts heightened by the Covid crisis in order to prepare a gender-responsive flood recovery strategy

Develop a comprehensive recovery strategy through a consultative process involving all the relevant ministries, I/NGOs, development partners, and UN agencies

Map socio-economic situation and development assistance in flood-affected districts to identify the most affected and lagging ones including the districts which are most exposed to climatic stresses and disasters and maximize recovery support in those areas

Build the capacity of community-based women's CSO in humanitarian response to ensure that the most vulnerable women's needs are met as these women's CSOs mostly work with the poorest of the poor women and girls

On a long term arrangement to al-

locate contingency funds, to Union Disaster Management Committees under the purview of the Upazila Disaster Management Committee, together with a stringent accountability mechanism involving women and men from the at-risk communities.

The views expressed in this article are that of the author's. ●

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PIXABAY

How to engage everyone in climate action

The National Climate Weeks program in the Netherlands offers some ideas

Catharien Terwisscha van Scheltinga

Our environment is changing, both due to human development and because of climate change. Awareness that this cannot go on endlessly is growing.

A large number of people now know what climate change means, and they also know about international agreements such as the Paris Agreement. High-level meetings enable global leaders to take action. But that alone is not enough to make it work.

The climate will not change because there is an agreement. The climate will change if people change their behaviour. This cannot be achieved only through the government making rules.

Action by private sector companies is needed; action by non-governmental organizations is needed, and action by universities and schools is also needed. And all of these actions are by individuals.

Of course, a drop of water is nothing compared to the ocean, but a lot of drops together make a significant amount of water. The result of all the

action is a further growing awareness and the effect of the taken measures. And that's what is important to achieve. But how to engage citizens in action towards sustainability and adaptation to climate change?

Let's take an example of engaging citizens from the Netherlands. The Government of the Netherlands took the initiative to engage citizens widely to enhance action towards sustainability and it is called the "National Climate Weeks".

From October 12 to November 6, 2020, a campaign was planned to get all into action, with a focus on reducing CO2 emissions and on adaptation to climate change. The slogan is 'iedereen doet wat', which, literally translated, means 'everybody does something' or 'everyone acts.'

At the last moment, however, the action weeks were postponed to 2021, due to the second wave of Covid-19. However, the concept basically remains the same, and by sharing it, let me also contribute to 'everyone acts.' This can hopefully inspire you also to act in your neighbourhood and contribute in a way appropriate for you to

sustainability.

Now, how does the campaign work? Nationwide, a call is made in the media to participate. Examples are given: One person acts by switching off systematically every day all the electrical switches in the house at the end of the day.

Another person installs solar panels on her roof, and a third person is sharing a car instead of having one for himself. The insulation of the wall, floor and/or roofs of houses saving energy; buying food which requires less energy to produce and prepare; choosing different ways of transport which uses less energy, among a large number of other examples.

And there is a call for action 'all can do something'. So, when somebody sees this and wants to take action, he or she can follow the ideas, as given in the examples. People can also have their own ideas and can organize actions with their neighbours, work colleagues, friends, etc.

It's all about inspiring each other to take action. It's about working together, inspiring each other, and taking action jointly in order to save labour, time and money to invest in the measures. And to do it! And all are invited to share a message about their action.

The government made an internet platform available, in which information about the campaign can be found. Individuals and groups can list their (planned) actions. The list translates into a map - and the map is visible to all. In this way, an overview of the initiatives in the whole country is shown. It is a direct way to bring all the drops together into an ocean!

A toolkit is available on the platform to get people started for action. The toolkit has the following parts:

Explanation of the National Climate Weeks in short

Flyer for organizations, to use when informing their customers

A presentation about the National Climate Weeks

7 Tips to organize your own activities during the National Climate Weeks

Logos

Frequently asked questions and answers

Support for communication (eg, ready to use social media posts, to promote your activities)

Besides individuals registering their individual actions, also companies and organizations can become 'climate partners' in the campaign. They can register what services they provide, to support the country's move towards action. By registering, they show how they support individuals with their climate actions towards a better and more

sustainable world.

Just to mention some examples: there are partners that focus on sustainable energy, sustainable living, sustainable financing, climate awareness related to food, different ways of travelling, and making sustainable choices.

Partners for sustainable energy: offer energy generated in a sustainable way, thus enabling individuals to make a choice for less emissions

Partners for sustainable living: offer products to limit energy losses at the household level. Isolation of houses for instance, or double glass windows, limit the need for energy to keep the house warm. Alternative energy sources can be used for heating. Or using more sustainable construction materials.

Partners for sustainable financing: can help households to finance measures that require substantial investment with a positive impact on the climate (less emissions).

Partners to help households create awareness about food and nutrition: food that is imported, has a high energy footprint because of the transport, as compared to nearby produced food. Animal proteins (meat, eggs) require a lot of emissions to be produced, as compared to plant protein (dahl).

Partners to help change travel into travel with less emissions. Using trains rather than aeroplanes for instance, for trips.

Partners that provide advisory services, to help individuals to make sustainable choices that reduce emissions and help to adapt.

Companies can be registered as partners on the platform of the government.

The overall campaign 'everyone acts' is an initiative of the Ministry of Economic Affairs and Climate, in collaboration with the Ministry of Home Affairs, the Ministry of Infrastructure and Water, and the Ministry of Agriculture, Nature and Food Quality.

The goal of the campaign is to help citizens to act and contribute towards a sustainable living environment. We'll now wait until next year to report back to you how citizens, organizations and companies took action during the four weeks of the National Climate Weeks, to limit CO2 emissions and get closer to the climate agreement.

Finally, taking action is urgent, and everything we can already start doing, we should do. Let me share what is already happening, in the organization where I work, Wageningen University and Research in the Netherlands.

Our organization also participates in this program. For instance, we contributed to the new guidelines on

Nature Based Solutions. Technology based solutions alone will not help us enough. If we want to be climate proof in future, we need to draw on the power of nature. Our work is documented at our website wur.nl.

Everyone of us needs to take action - we all can do something to contribute. Let's not wait. Everything we can do already now will be in the benefit of the planet. We owe this to our children. ●

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The climate will not change because there is an agreement. The climate will change if people change their behaviour



Feminism and the environment

How greater girls education means fewer emission



Helena Bennett

In this time of urgency and emergency, we often rush to the most obvious solutions that will halt the devastating effects of climate change: stop burning fossil fuels! Go vegan! Stop flying! While all these, of course, are some solutions to the problem, there is a set of more nuanced actions we should be taking to combat the warming climate.

Though they may at first seem like unrelated, yet prominent social justice movements, feminism, and environmentalism are inextricably linked in ways that aren't that obvious at first glance.

What may seem obvious is the impact that natural disasters have on women - we are disproportionately affected by extreme weather events than men. In the 2004 Indian Ocean tsunami, four times as many women were killed than men.

Some stayed behind to care for and search for children and each other. Others had simply never learned to swim. When Cyclone Gorky hit Bangladesh in 1991, it killed fourteen times more women than men.

Importantly, there is a significant difference in gender-based death rates between countries in which social and economic rights are more equally distributed than in those in which they are not. For example, there was a negligible difference between female and male death rates during Hurricane Katrina, which hit the US in 2005.

Aside from the direct impacts of climate change on women, the more nuanced connection between environmentalism and feminism comes in the guise of education. Project Drawdown - a comprehensive summary of the most viable solutions to climate change - lists educating women and girls as the 6th most impactful thing to do to draw the climate back down.

Project Drawdown calculates that by investing in good quality, equitable education for women and girls, we could stop over 51 billion tonnes of emissions entering the atmosphere by 2050.

Here's how:

Women are the primary farmers of the world, producing between 60 -- 80% of food in low-income countries. As smallholders, women often operate on fewer than five acres of land. In many countries, resources such as land rights, training, capital, tools or technology, is easier to access for men than for women.

This resource inaccessibility is the primary reason that female farmers do

not produce as much food as men on the same amount of land. By enabling women's access to the same level of resources as men, the farming output could increase by up to 30% on the same amount of land.

This leads to lower amounts of land being converted into pasture or cropland and subsequently less deforestation. Additionally, more food means food-related health issues improve, as will household income for smallholders. Education is not only beneficial to the environment but also vital for raising women out of poverty.

Teaching women and girls about sexual education and health is a powerful way to reduce greenhouse gas emissions. Educated women are more likely to marry later and have fewer children; effective and safe sexual practices are likely to lead to fewer overall births, while better standards of health have also been shown to cause a reduction in the average number of children a woman has.

Practising safe sex allows women to choose when and how to have children, rather than leaving it up to chance. Or men. Curbing population growth will be a key factor in ensuring our emissions don't surpass dangerous levels - the UN predicts the global population will be 9.8 billion by the year 2050, but fast education expansion at all levels to all women could result in a staggering one billion fewer people on the planet by 2060. Fewer people will result in less energy, food, and space being required - all key factors in drawing the climate back down to safe levels.

Aside from the environmental benefits, equality across society will be achieved much faster if everybody is given the same access to a good education. Globally, there are over 130 million girls who are denied their basic right to attend school, with the gaps greatest at the secondary school level.

By enabling girls' access to education, we see increases in health and wellbeing, decision-making and autonomy, better food and financial security, and, perhaps most importantly, sovereignty over how best to adapt to and mitigate the effects of climate change. Education means better resilience in the face of disaster.

If this subject is sparking an interest in you, I would highly recommend listening to Katharine Wilkinson's TED Talk "How empowering women and girls can help stop global warming." Katharine has done extensive research in this field and is an eloquent speaker alongside being highly knowledgeable.

Katharine is also Vice President of Communication and Engagement at

Project Drawdown. Mary Robinson, former President of the Republic of Ireland, has a great podcast called "Mothers of Invention" which explores the link between feminism and climate change, with the striking strapline: "Climate change is a man-made problem with a feminist solution".

If you want to go a step further and support the cause with altruism, some great charities to support are Hand in Hand International, Girls Not Brides, and the Malala Fund.

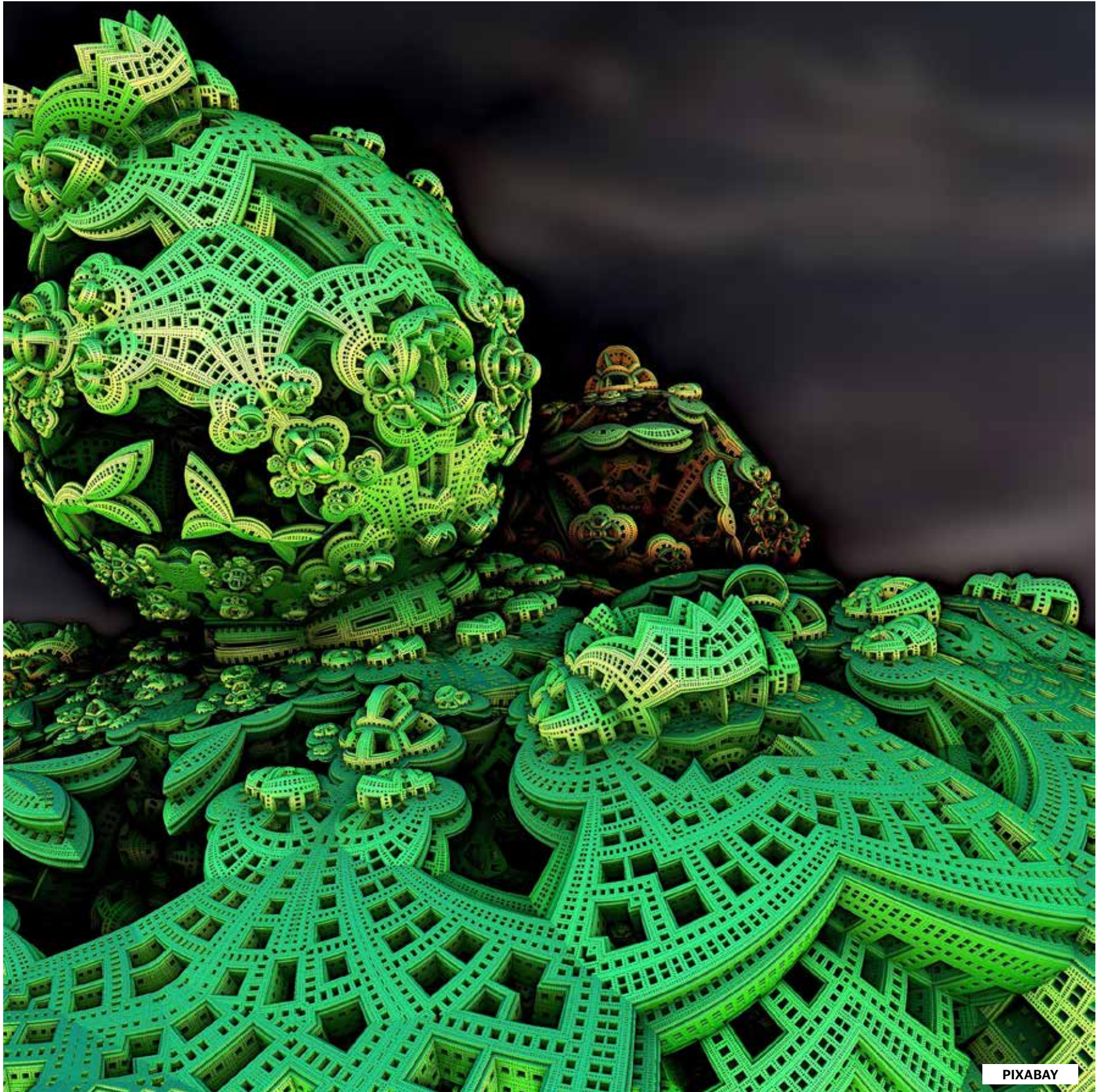
Since the simple act of education could prove so valuable in mitigating the effects of climate change for us all, we must question why it isn't being adopted globally as a solution.

I suspect factors like non-progressive social attitudes play a role in certain nations, as well as the overplay of other solutions. One of the most powerful ways you can help the cause is by spreading the word and telling others the important role education plays in tackling the climate crisis. ●

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Engaging the private sector in innovation and transfer of green technologies

A large global demand for innovation and transfer of green technologies cannot be met merely through ensuring public sector engagement

Md Mahatab Uddin

To combat global climate change and to contribute to the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system,” in 1992 the members of the United Nations agreed on an international treaty – The United Nations Framework Convention on Climate Change (UNFCCC) (Art 2).

The Convention was later supplemented by a legally binding protocol – Kyoto Protocol signed in 1997 and entered into force in 2005. After the completion of the first commitment period of 2005– 2012, the Kyoto Protocol is now on its second commitment period of 2012– 2020.

Apart from the Kyoto Protocol, the parties to the UNFCCC have also agreed to further commitments such as the Bali Action Plan 2007, the Copenhagen Accord 2009, the Cancun agreements 2010 and the Durban Platform for Enhanced Action 2012.

After the termination of the second commitment period of the Kyoto Protocol in 2020, the international legal

regime on climate change will be governed by a separate instrument under the UNFCCC, the Paris Agreement concluded in December 2015.

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The potential of private sectors in climate financing can be assumed on the basis that presently 86% of total global investment and financial flows are coming from the private sector

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Redefining the climate leadership of ICCCAD

Transitioning from 'community-based' to 'locally-led' adaptation



Dr Saleemul Huq at his office in Dhaka

RAJIB DHAR

Samina Islam, Adiba Binte Kamal, Mahmuda Akter, and Ali Mohammad Rezaie

A decade has passed since the establishment of the International Centre for Climate Change and Development (ICCCAD) when some young researchers decided to know more about the story and progression of the organization.

ICCCAD started its journey with the

primary focus on climate change adaptation, especially on the community-based adaptation (CBA). The poorer communities are more vulnerable to the impacts of climate change with less capacity to adapt to the shocks and stresses of climatic hazards.

CBA emerged as an adaptation approach in the early 2000s that involves working with these marginalized communities to identify, aid and implement appropriate community-driven adaptation techniques

to address climate change (Forsyth, 2013). Thus it stresses on 'action research' and knowledge sharing so that different actors and communities can learn and adapt by doing (Huq & Reid, 2007).

Over the past 10 years, ICCCAD has collaborated and led numerous projects, activities and events on CBA, and managed to garner national, regional and global attention. However, the story of ICCCAD began with the vision of its founder, Prof Saleemul

Huq and intertwined with his personal journey.

Before diving into the ICCCAD journey, we managed to interview the founder and know the story from his end. Prof Huq, an acclaimed international expert on climate change adaptation and development (once known as part of the "Adaptation Mafia") shared his personal vision to work for the vulnerable community who are facing the direct effects of climate change.

From the viewpoint of a scientist, he saw climate change as a scientific issue, however, the poor are suffering the consequences of the actions of the rich; and this sense of injustice contributed to his involvement in advocacy.

Prof Huq said, “CBA to climate change arose as a means of informing the groups (development NGOs) that are working with the most vulnerable communities.” While working at the International Institute for Environment and Development (IIED) in London, he started working with the vulnerable communities in the least developed countries (LDC) and built their capacity in the face of climate change.

He pursued the formation of the LDC group in the Conference of Parties (COP) and finally in COP6 the group was formed. Also, he proposed to find partners in LDCs and support them which eventually led to the launch of CLACC program (Capacity Development on Least Developed Countries of Adaptation to Climate Change).

The CLACC fellows from different LDCs worked on the ground and were, subsequently, capacitated to enhance the competence of their host institu-

launched “Gobeshona Web portal”, “Gobeshona Young Researchers Program”, organized CBA conferences and side events in COPs to capacitate practitioners and researchers on climate change adaptations and advocate for the lowest income and most vulnerable people.

The primary focus of ICCCAD was in the area of climate change adaptation from the very beginning, as stated earlier - with an emphasis on CBA. CBA was embedded in several ICCCAD works and projects such as in Capacity Building initiatives at the local level which ranged from awareness-raising to organising workshops and short courses.

These initiatives were important in capacitating local governments, community leaders and community members to lead local adaptation actions. While the concept of CBA had its successes, it also had limitations and a broader sense of local adaptation was needed for more effective implementation.

Now, recognizing these limitations, experts are focusing on a shift - from community-based adaptation (CBA) to

event of ICCCAD - the Gobeshona Conference will become a 24-hour online event that would provide an opportunity for greater coverage for global climate change issues, especially on locally-led adaptation.

While the online modality is insinuated by the Covid-19 pandemic, ICCCAD is rather optimistic to utilize the virtual landscape to make a more impactful and broader presence in the global platforms on climate change.

The shift toward online allows ICCCAD and local organizations to easily traverse the world, acquire knowledge and enhance their capacities to learn and lead effective adaptation strategies to combat climate change.

In addition to capacitating communities, developing individual and institutional capacities can enable societies and nations to work hand in hand to address the effects of global warming and compounding risks from the pandemic, man-made and natural disasters.

Challenges have always been there and will continue to persist. However, it has to be a collective effort to overcome and swim against the tides of challenges. One of the major transi-

ing and learning from mistakes can be some of the keywords for ICCCAD in its relentless journey to redefine climate leadership; from CBA to LLA.

As Prof Huq mentioned in his interview that in locally-led adaptation, the most important term is “led”. It’s locally-led when the local is leading, and this is the argument in the paradigm shift that is happening with the global community. ●

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tions which led to the development of awareness and actions on adaptation in their nations. In Bangladesh, Prof. Huq was one of the pioneers to promote the concept of CBA with Bangladesh Centre for Advanced Studies (BCAS) and groups of multidisciplinary scientists.

From the interest of Prof Huq to develop a research centre in Bangladesh, an informal discussion ensued between IIED, Independent University Bangladesh (IUB) and BCAS. A tripartite agreement was signed in 2010 to support the establishment of the centre - ICCCAD, with the vision to become a globally recognized institution in the southern hemisphere on climate change and development.

However, the vision needed innovations, execution of actions, and “walking the extra mile for a shared mission” as suggested by the founding deputy director, Ina Islam. Islam worked with Prof Huq to collaborate with diverse actors and built mutually beneficial and sustainable relations across the globe that resulted in offering short courses on “CBA to climate change” to developing an international master’s Program on Climate Change Development at ICCCAD.

Along with the course, ICCCAD also

locally-led adaptation (LLA). In locally-led adaptation, it is argued that multi-level local stakeholders should be involved in adaptation, beyond simply ‘based’ in communities, rather wholly ‘led’ by local people and local institutions and it should build on traditional knowledge and coping mechanisms.

This is more of a re-framing around how adaptation needs to be pursued going forward (Westoby et al, 2019). ICCCAD is also onboard - focusing on this shift. For the last two years in the Global Commission on Adaptation (GCA), Prof Huq, Dr Musa and Sheela Patel have pushed the idea of LLA.

Prof Huq explained that usually, top-down programs intend to help the poor as beneficiaries or target the poor, but the terms “beneficiaries” or “targeting” are disempowering. So, LLA addresses CBA but for top-down people; for governments and donors to understand and engage with the local governments and communities.

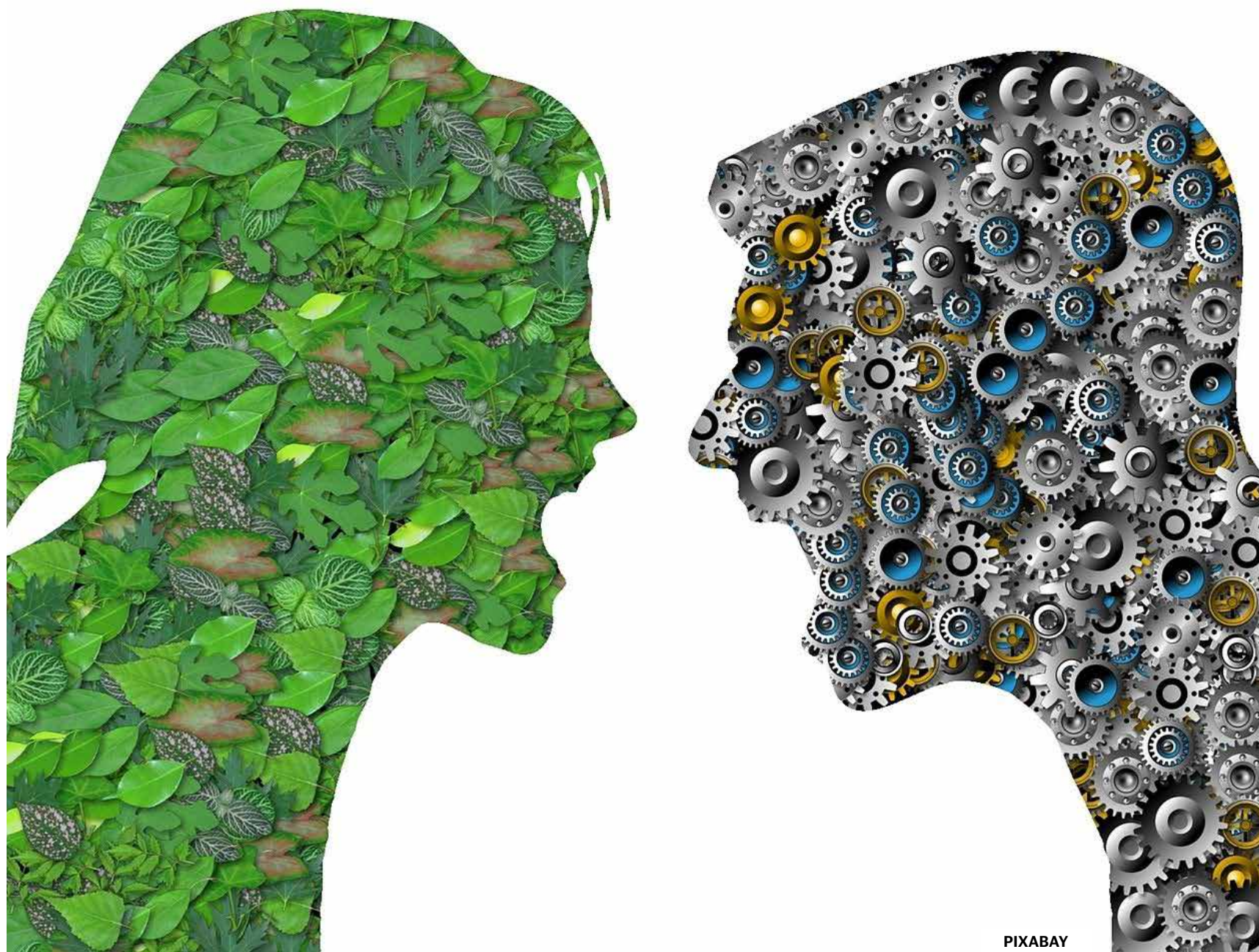
Prof Mizan R Khan, the current Deputy Director at ICCCAD also stated, “LLA is a transition to a wider perspective from CBA, and CBA is included in LLA.” This is also going to be the main theme for ICCCAD’s work in future. For instance, from next year, the annual



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tions of ICCCAD as an institution is that it was long known as Prof Huq’s institution, but ICCCAD is gradually emerging with its own identity in the global platform.

Internal and external collaboration and capacity building, innovation, knowledge generation, mutual learn-



Images from a climate dystopia

Exploring the interplay of climate change and intra-community conflict

Riadadh Hossain, Shababa Haque, Sumaiya Binte Anwar

The effects of climate change have a substantial impact on a country's social, political, and environmental conditions. The bearing of climate-induced changes on issues such as water availability, food security, and migration is undeniably significant.

As tension and insecurity regarding life and livelihood opportunities in climate-vulnerable regions continue to increase, there is a growing possibility for both inter and intra-community-level violence and conflict to occur.

While there is no direct relationship between climate change and security, it is important to note that the chain of consequences instigated by climate-related changes eventually affects the parameters that are sometimes important in generating or exacerbating conflict, thereby creating multiple routes for indirect connections.

To support this assumption, various research studies on the topic have successfully linked at least one climate-related variable, such as increased temperatures or changes in rainfall patterns, etc with different streams of conflict, including interpersonal, inter-

group, or societal collapse.

While it is accepted that climate change has complex interactions with the political, social, economic, and environmental drivers of conflict, the context, and mechanism that can potentially drive outbreaks of violence is yet to be fully understood.

Tension over shared resources

As researchers are continually working to make links between climate change, security, and conflict, concerns have been raised that Bangladesh's extreme vulnerability to the environmental effects of climate change may create conditions that put it at risk of greater

insecurity and possible conflict.

Bangladesh is one of the most densely populated regions of the world. This already induces significant pressure on food, land, and one of the most contested resources at the national and regional level: water.

According to recent projections, climate change will dramatically increase river and groundwater salinity by 2050 and create a shortage of water, both for drinking and irrigation, especially in the country's southwest coastal areas.

This will affect the livelihoods of at least 2.9 million of the poorest groups in the region, where 1.5 million are al-

ready struggling for access to potable water. Therefore, the impacts of climate change will inevitably escalate regional tensions due to competition over fundamental needs, such as water resources.

The southwestern coasts of Bangladesh are frequently faced with a variety of natural disasters such as floods, cyclones, and river erosion. The vulnerability of the region has been further enhanced by the additional impacts of climate change, leaving the population poorer and more marginalized.

To cope with rising salinity issues, the region has seen a massive shift from agriculture to shrimp aquaculture. The expansion of large scale shrimp farming, due to its investment and maintenance costs, benefitted businessmen and large scale farmers far more.

Under these renewed circumstances a certain segment of the middle and low-income population, who were no longer able to earn from their small-scale agrarian practices, had to either migrate or be transformed into low-wage workers in these industrial-scale shrimp farms.

The change in the region's environment stirred remarkable changes in people's livelihood circumstances; expanding the existing inequality in the region and propagating tension within community members.

In addition, shifting to shrimp aquaculture also left detrimental impacts on the region's ecology. By making the soil more saline and infertile, vast stretches of land have been rendered unsuitable for agricultural activities.

Considering that laws of land zoning are barely practised in these areas, this shift also affected the land productivity of neighbouring small scale farmers who continued their agrarian practices.

As insecurity due to land access and natural resource management continued to grow in the area, there have been incidental reports of violence within the community in the form of clashes between groups of agricultural farmers and shrimp farmers.

The above-mentioned example paints a vivid image of how climate change can worsen existing vulnerabilities and challenge traditional practices within a region, provoking further tension over food and water security. This in turn can create openings for greater insecurity and conflict within a community.

Settling conflict to create resilience

As such to build long-term climate resilience, it is highly important to integrate security dimensions within climate action and its associated policy discourses, strategies, and initiatives.

The knowledge that is available in this regard is still inadequate to set a baseline scenario and understand the full context. At present, existing policies relevant to the climate-security nexus mostly focus on adaptation and socio-economic resilience because climate change is primarily seen as a challenge for livelihoods and economic growth.

However, vulnerable countries are yet to consider all aspects of climate fragility risks, including those related to the sharing of resources within climate-vulnerable communities.

The relationship between climate change and security leads to a dual plight for climate-vulnerable groups.

On one hand, the potential for increased conflict in climate-sensitive regions will deter adaptation progress

action as a whole, is more conflict-sensitive.

This would entail taking into consideration the local conflict dynamics, and the impacts of different development and adaptation activities undertaken by donors, government, and other organizations on these dynamics.

In addition, it is also important to ensure that adaptation actions undertaken address root causes and do not further aggravate drivers of conflict.

In this regard, there is now a great need for strengthening the understanding of different social, economic, political, as well as environmental factors that can lead to climate change-induced social instability, and accordingly, design better-informed policy and practices for climate action.



As insecurity due to land access and natural resource management continued to grow in the area, there have been incidental reports of violence within the community in the form of clashes between groups of agricultural farmers and shrimp farmers

and can render people poorer and less resilient. Conversely, the impacts of climate change on society and the environment will also continue to provoke conflict within communities and the region.

It is therefore essential to address the two issues cohesively and further understand the architecture of the relationship.

In order to devise better strategies for conflict management in climate-sensitive regions, it is important to ensure that governance mechanisms, infrastructure development, community responses, and climate

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Global knowledge, local resilience

Enhancing peer-to-peer learning in the Global South to foster actions on climate change adaptation and resilience

Shahrin Mannan and Saleemul Huq

The impacts of climate change on developing countries particularly on the Least Developed Countries (LDCs) are immense. Such adverse effects are manifested at the local level, threatening future resilience. The global Covid-19 pandemic has further exacerbated the prevailing challenges faced by local communities and revealed the interconnected systemic flaws.

But this is only part of the truth. Local communities, together with their large and trusted networks, have been undertaking adaptation and resilience strategies at local and community level allowing the voices of the poor to be heard and thereby strengthening the partnership between communities and a range of stakeholders at a different level.

Despite making important contributions in adaptation and generating useful experiential climate knowledge, locally driven data and information are still not widely used in decision making due to concerns about usability and legitimacy. Closing the usability gap between knowledge generators and users requires a systematic knowledge exchange and collaboration among stakeholders.

One such way to exchange knowledge effectively across a wide range of users is through “peer-to-peer learning”. Peer-to-peer learning is a powerful tool to exchange experience and learning on climate change adaptation and resilience and foster collaboration at all levels.

Climate knowledge has historically been delivered from Global North to South. But over the years, the “communities of practice” in the Global South have developed substantial knowledge through the collective experience of dealing with recurring shocks.

As they continue developing their unique expertise in-country, they are increasingly seeking to learn from each other. With recent incidences of climatic shocks and COVID-19, the need for collaboration among countries in

the Global South to share common needs and design collective actions is more pronounced now.

To promote such an abundance of expertise and foster greater collaboration, creating as well as linking and expanding knowledge networks are key. Such platforms can stimulate learning opportunities of best practices and enhance the acceptability and replicability of tested solutions. Innovate ways of building adaptive capacities are also offered through such collaboration.

To contribute to the wider goal of creating Southern-led knowledge platforms, International Centre for Climate Change and Development (ICCCAD) has partnered with the Global Resilience Partnership (GRP) and Climate and Development Knowledge Network (CDKN) in a number of efforts for South-to-South knowledge sharing and peer learning.

One such initiative is called the Voices from the Frontline, which provides a platform to grassroots communities and organisations to share their stories of building community resilience during Covid-19 through writing blog pieces and speaking on different knowledge dissemination events.

It provides an excellent opportunity to the grassroots organisations and people working in the field of resilience to learn about the community best practices across the globe. A resilience knowledge coalition is another initiative which focuses on peer-to-peer learning to provide tailored knowledge and help shaping global policies and investments.

Instead of investing on forming new networks, the coalition prefers to join largely separated existing networks which have trusted relationships with communities as well as decision makers to influence policy making with salient, timely and legitimate information.

The Climate Resilience Academy for LDCs (CRAL) is another initiative which aims to facilitate South-South knowledge transfer by bringing together trans-disciplinary cohorts of academics, scientists, practitioners, thought leaders and policymakers and

generate useful insights towards identifying solution pathways towards future resilience.

Recovering from the pandemic, while ensuring a clear pathway towards climate action goals and achievement of the SDGs, would require building bridges among different types of stakeholders at all levels. Bringing the Southern countries experiences together, through peer-to-peer learning will collectively contribute to adaptation knowledge globally and work to enhance local resilience. ●



PIXABAY



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Prof Saleemul Huq is the Director of at the International Centre for Climate Change and Development (ICCCAD)