

Climate refugees: The Bangladesh case

Experts recommend that the country should consider both mitigation and adaptation options. Remarkably, the Bangladesh government has already incorporated both adaptation and mitigation measures into the country's overall development strategy. Surprisingly, no one has yet advocated reduction in population growth rate as a response to what appears to be imminent sea level rise. Bangladesh has a natural population growth rate of 1.7%, which is higher than the world average growth rate of 1.2%.

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CONCERN over anticipated sea-level rise (SLR) associated with global climate change has received wide attention of Bangladeshi climate specialists and related scientists, concerned citizens, politicians, and the print and electronic media. It is now widely accepted in the country that Bangladesh faces grave challenges from impacts associated with climate change. According to the World Development Report 2010, about 18% of Bangladesh's land will be submerged if the sea level rises by one meter. Should this occur, it will result in the displacement of almost 30 million people. Bangladesh government has few available resources to deal with this huge number of displaced people, or the so-called climate refugees. Not surprisingly the government has been seeking the cooperation of wealthy nations in relocation planning for those likely to be displaced.

At the December 2009 Climate Change Conference in Copenhagen, the Bangladesh government successfully highlighted its concerns and anxieties with clarity and urged the wealthy nations to

accept millions of Bangladeshi climate refugees. It also called on the UN to redefine international law to give climate refugees the same protection as people fleeing political repression. Bangladeshi climate specialists and others support the idea that richer nations should accept climate refugees as land becomes scarce in this densely populated South Asian nation. Moreover, they maintain that it is a moral obligation of industrialized countries to accept displaced people because they are largely responsible for the greenhouse gas emissions that are the root cause of SLR. Bangladesh is one of the least responsible nations for the problem, yet it is one of the most at risk from the consequences of the impending climate change specifically rising sea levels.

It appears that Bangladesh government has not yet outlined any policy regarding the mechanics of climate refugee migration to foreign countries. Without a clear policy in place, many concerned citizens of Bangladesh suspect that the most vulnerable -- poor and largely illiterate coastal residents -- will never be able to migrate to developed countries. Rather, many suspect, politically powerful

and/or highly educated urban residents will take this opportunity to migrate to developed countries as climate refugees. Even if the government does develop a comprehensive policy on climate-induced migration, many suspect that it will fail to implement such policy because of widespread corruption within the government.

Relevant literature suggests that the international community is reluctant to relocate climate refugees of developing countries in developed nations. It advocates that climate-induced migrants be resettled within the national boundaries of the impacted countries. Like Bangladesh and other developing countries threatened by sea-level rise, with countries in Europe, North America, and Australia low-lying coastal portions may themselves face a similar refugee problem. International agencies hope that most people forced into migration due to climate change can be resettled within their own countries. There is a great reluctance on the part of the UN High Commissioner for Refugees (UNHCR) regarding revision of the definition of refugees to include climate refugees.

A UNHCR report warned in August 2009 that given the current political environment, such a revision could result in decreasing protection standards for non-climatic refugees and even undermine the international refugee protection system altogether. Given current reluctance on the part of most developed countries to accept climate refugees, some Bangladeshis feel that the Bangladesh government should also approach Middle Eastern countries for providing resettlement options for Bangladeshi climate refugees. They claim that wealthy Middle Eastern Muslim countries have an obligation to accept displaced Bangladeshi Muslims. Regardless of whether Western or

Middle Eastern countries may become possible destinations for Bangladeshi climate refugees, experts maintain that after their homes are inundated due to sea-level rise, affected coastal residents of Bangladesh will first move within the country -- most likely to larger cities located inland, such as Dhaka. These experts further claim that the next step in this predicted migration pattern is illegally crossing national borders to neighbouring countries where resources may be only slightly less scarce. Cross border migration will almost certainly become a great political issue and will cause political tension. It is also probable that some climate refugees will be victims of those who are in the trade of trafficking women and children, which has been occurring for more than three decades in Bangladesh.

Given uncertainty regarding the acceptance of climate refugees by any country, the Bangladesh government should also focus on proactive adaptations, such as modifying zoning laws on coasts in anticipation of stronger sea surges, planning for large tracts of forest in flood-prone areas along rivers and coastlines, perhaps building embankments in some areas to cope with rising waters, along with shifting to crops that are more resistant to drought and saline water. The goal of these and other proactive adaptation measures is to reduce the impacts of climate change by reducing vulnerability to many of its direct effects.

From an economic point of view, the costs of proactive adaptation are generally lower than the costs of reactive adaptation strategies. A common problem with most adaptive strategies is that many if not all impacts of climate change will not be visible until the next few decades. Additionally, because of uncertainties among climate experts regarding changes in regional climates, the specific local impacts of climate change (even at national levels) are also uncertain. Despite

these limitations, the research on this issue finds that past SLR (due to natural calamities) has not led to displacement of coastal populations; instead people coped through a variety of different adaptations.

In the context of climate change, mitigation consists of reducing emissions (or removing greenhouse gas (GHG) from the atmosphere), shifting from coal to natural gas-fired power plants, developing renewable energy, and reducing deforestation and associated emissions of carbon dioxide. All these measures can substantially reduce the impacts apprehended with on-going climate change. Although there is some disagreement among climate specialists, mitigation measures are generally more appropriate responses to climate change for developed countries. Bangladesh government naturally feels it has little responsibility for mitigation measures since its contribution to GHG emissions

that cause global warming is insignificant.

Experts, however, recommend that the country should consider both mitigation and adaptation options, even though mitigation involves global efforts to be effective and adaptation is more varied and local. Remarkably, the Bangladesh government has already incorporated both adaptation and mitigation measures into the country's overall development strategy. Surprisingly, no one has yet advocated reduction in population growth rate as a response to what appears to be imminent sea level rise. Bangladesh has a natural population growth rate of 1.7%, which is higher than the world average growth rate of 1.2%. The government should seriously consider controlling its population as one of the means to address impact of climate change.

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Cyclone victims yet to be rehabilitated.

Coal-fired thermal power plants: Some questions

If we are committed to develop coal-fired power plants then the technology must be cleaner. One of the technologies to get cleaner energy from coal than conventional coal-fired power plant is called 'gasification'. This gasification technology is treated as a green technology. Finally, we have to go for the Embedded Generation (EG) system based on the renewable energy sources capable of running on islanding mode to reduce the pressure and dependency on national grid.

MD. ADIL CHAUDHURY

OF course energy deficiency is one of the biggest problems and challenges for Bangladesh. About 90% of our power plants are natural gas fueled. As we have limited natural resources to generate electricity in conventional ways, we have to look for the alternatives. It will not be a wise decision to plan and install any more natural gas based thermal unit at this stage. So a few other alternatives that come in view are coal or oil based plants, nuclear power plants, hydro units and renewable energy sources i.e. solar, wind, biomass, etc.

Recently we came to know that Bangladesh is going to install two coal-fired mega power plants in Khulna having electricity generation capacity of 660 MW each (1320 MW in total) in joint venture with India. Bangladesh and India will share 50% of the cost to each install the two power plants under the Independent

Power Plant (IPP) mode where Indian technical experts would manage and handle the plants.

No doubt it is a big plan to improve our power quality, but we have to be careful about some technical, contractual and environmental issues. Environmental issues should be considered more seriously as we are the biggest victim of global warming although our emission level is simply negligible.

All energy supplies have substantial effects on the environment. Gases from fossil fuels, especially coal, pollute the atmosphere leading to climate change and acid rain. Countering the effects of increased energy use on the environment requires a global response and cooperation between the developed and developing world. Developing nations produce considerably less CO₂ per capita than the developed world, but their consumption of fossil fuels is rising rapidly and conse-

quent emission is set to overtake the emissions of the developed world within a few decades. India, China, Brazil and South Africa are considered to be the major contributors of green house gas emission in future.

Therefore an international agreement is required, without affecting the economic growth of developing countries. The Kyoto agreement set a target of reducing global CO₂ emissions by 12.5% from their 1990 levels by 2010. This is clearly a step in the major direction, but even this step is seen as too much for the likes of the United States where 25-30% of the world's emissions are produced.

The UK government has gone further than Kyoto pledging to reduce CO₂ emissions by 20% of 1990 levels by 2010. Now the final question is how is this going to be achieved? It can be seen that as the switch away from coal-fired power plant has been made, CO₂ emissions have dropped considerably in UK. Like UK many other European and industrialized countries are planning to replace their conventional coal-fired power plant with different alternatives.

Since the development of India and China are quite remarkable, their green house gas emission is increasing at a rapid rate which is closely monitored by the advanced world. As a result they will have a natural tendency to distribute their emission among neighbouring least developed countries by shifting few industries like coal-fired power plants. The energy will be imported to meet their needs through cross-border transmission system. Power Grid Company of Bangladesh Ltd. and India has already planned for the cross

boarder transmission system.

Definitely India is looking toward the situation that might happen after 10-15 years regarding the energy security as well as environmental issues. Therefore, Bangladesh will have to be very careful about the terms and conditions of the Power Purchase Agreement (PPA). From our point of view, any agreement should be done keeping our own priority on top. If the operation and control of the proposed plants remain in Indian hand and power is exported to India then Bangladesh will be only benefited by getting some wheeling charges for using the grid system while a large amount of emission will occur from Bangladeshi soil. This will weaken our position vis-à-vis the climate change issues.

In the 2009 United Nations Climate Change Conference, commonly known as the Copenhagen Summit, Bangladesh had shown that she will be the worst victim of climate change though she is not responsible for causing it. According to the UNDP Human Development Report of 2007, Bangladesh accounted for only 0.1 percent of the total global GHG emission in 2004, with a per capita emission of 0.3t CO₂, which is only 1.5 percent of that of the United States. In the Copenhagen Summit Bangladesh delegation demanded allocation from any climate change adaptation fund in proportion to the percentage of its population exposed to the climate change.

Now if the large amount of greenhouse gas emission comes from our coal based power plants, we will lose our position against climate change and further demand for such funds. Now the question

is how can we get rid of this present power-insecure condition. No doubt, we have to increase our generation. Best solution will be the nuclear power plant which might be installed in joint venture investment with India or other partner countries. Again Bangladesh can go for the joint investment in hydro power plant in Nepal, Bhutan or Myanmar with regional grid system.

If we are committed to develop coal-fired power plants then the technology must be cleaner. One of the technologies to get cleaner energy from coal than conventional coal-fired power plant is called 'gasification'. It represents a thermal treatment in a reactor called 'gasifier' for converting the coal into a mixture of

gases (producer gas or syngas) that can be used in engines or boilers. This gasification technology is treated as a green technology. Finally, we have to go for the Embedded Generation (EG) system based on the renewable energy sources capable of running on islanding mode to reduce the pressure and dependency on national grid. Hope our government will be careful about these issues form technical, economical and, more importantly, environmental points of view before signing any long-term contract with other countries.

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A coal fired power plant billowing smoke in atmosphere.

FACING CLIMATE CHANGE

Youths can also set agenda

In Bangladesh, we need to recognise that youths are a source of power which could be utilised positively to help thrive a nation's prosperity and sustainability. Youths here can think, are innovative and can set agenda through visionary thoughts; they just need attention through which the leaders could value their existence and receive guidance to help themselves shape up their thoughts into fruitful outcomes.

NAZZINA MOHSIN WITH ABDULLAH AL RAZWAN NABIN, ZIA H SIDDIQUE AND SUMAIYA KABIR

MUCH has been written and told about climate change impact, mitigation and adaptation over more than a couple of months since COP15 held in December, 09 in Copenhagen. But not much about the role of youth in the efforts.

Whether we could have a fair Accord of the conference or not, in the end, we have learned and understood that to combat climate change, which will ultimately force each country to worry about its own existence, there are numerous issues need to be resolved, not just among the nations but internally within communities and societies. And here, the youths can play a strong role in raising awareness and shouldering

the burden of policymakers to fight and live through this greatest phenomenon mankind is facing today.

We -- Zia and Sumaiya as British Council's International Climate Champions, Nazzina as the Project Manager of this programme and Nabin representing South Asian Youth and Youth in Action on Climate (YAC) -- were few young people involved in climate change works represented Bangladeshi youths in this conference, bringing in enormous experience of participating in such a large scale event.

We are here, in Bangladesh, and absolutely eager to engage with youths of Bangladesh to come forward to be active in voicing our concerns to global communities and leaders.

Here in this article, we are sharing our story which we hope will motivate young

Bangladeshis as there are some very big opportunities available to lead youth movements in our region and even in some cases globally if we all come forward, join hands and work together.

Nabin was first among us to arrive in Copenhagen and attend global Conference of Youths (COY) on 5-6 December 2009 at the Copenhagen University. The objective of the conference was to develop the capacity of youth participants through a number of workshops, seminars and presentations. Some of the experienced youths from various nations shared their knowledge of attending previous COP and conferences on climate change which added value to the learning of the young people attending first time in COP15. Kumi Naidoo, Chair of Greenpeace, inspired the youths and said that they were not the future leaders, they were leaders now. In COY, youths from various regions gathered together and planned their actions around COP15 to ensure a real and fair deal is sealed.

For the first time, the United Nations Framework Convention on Climate Change (UNFCCC) gave a legal status to youth constituency in COP15 and the body of this constituency is known as YOUNGO which coordinated all the youth related activities and events at COP15. The British Council and South Asian Youth network worked closely with YOUNGO to ensure maximum participation of their youth delegation to raise their voice around various climate

changerelated concerns.

The British Council Bangladesh team arrived in Copenhagen on 7th December. The British Council booth promoted active participations of youths through their community based projects in more than 30 countries and put its International Climate Champions in groups such as governance and policy, business and media to visit various events and talks to gather information and share their experience later in the day.

In this conference, we were fortunate to meet and hear many high profile individuals doing their part to bring a change. One of these stars had to be the President of the Maldives, Mohamed Nasheed, who mesmerised his audience with such strong implications blended with emotions on where we, as mankind, are heading towards. Yes we agree that he marred his strong presence by clapping for the Copenhagen Accord, which in many ways, did not represent all the countries democratically and has issues around financial responsibilities of carbon emitters and countries necessitated to adapt, still he strongly told the stories of vulnerable people across the world.

And that led us to our interaction with IPCC Chair Dr Rajendra Pachauri. We asked about his views on politically binding agreement and that as youths who are the ultimate owners of the decisions that today's global leaders make, he clearly said our world leaders must act fast on an agreement, even if it's politically binding, and

ensure that it is fair and credible for all countries. However, the first priority is to set a target to reduce Greenhouse Gas emission significantly by 2020, not 2050.

He reflected on urgency to have ourselves prepared to fight climate change issue at the earliest and here, and that we must act together. A politically binding agreement could work at some level for the time being if it clearly narrates finance, technology transfer and GHG emission cut by developed nations. In the end, we saw, as it's mentioned earlier, a Copenhagen Accord which unfortunately did not set any clear direction to resolve monetary issues around adaptation or how technologically advanced nations could share their green inventions with fast developing and developing nations to help them reduce GHG emission. However, the Accord emphasised on countries, regardless of their status, come forward to fight deforestation and thought to recognise importance of having a target to keep global temperature below 2 degrees Celsius.

There were a few who supported us enormously and believed that youths through the power of their voices and concerns could make a difference. One of them was the Chair of All Party Parliamentary Committee on Climate Change Saber Hossain Chowdhury MP. His presence at COP15 felt strong because he was there for everyone and engaged with everyone in a best possible way which is listening to the

voices of people, including the young ones who brought in stories and experiences to share. And we had a great opportunity to share pleasantries with the State Minister for Environment and Forest at the 'Bangladesh Night' organised by Bangladesh Centre for Advanced Studies but we wished to have more meaningful discussion. Our counterparts from some other countries helped their government delegation to write papers and campaigned for their national causes in important events and this is something our policymakers could consider to add to their agenda.

In Bangladesh, we need to recognise that youths are a source of power which could be utilised positively to help thrive a nation's prosperity and sustainability. Youths here can think, are innovative and can set agenda through visionary thoughts; they just need attention through which the leaders could value their existence and receive guidance to help themselves shape up their thoughts into fruitful outcomes. Here, many of our leaders in various sectors -- from policymaking to education to businesses -- could come forward and listen to the youths and help them to be part of this national cause of fighting climate change.

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