CLIMATE CHANGE NEGOTIATIONS

Whither agreements?

Tallberg Foundation of Sweden in a recent report (Grasping the climate crisis, 2008) blamed developed countries for their delaying efforts to strengthen the international climate regime. They warned "even if best possible agreement signed in Copenhagen is likely to fail or be ineffective because of the lack of political will to prioritise environment over short-term economic and geopolitical strategic interests".

MOHAMMED ABDUL BATEN

CLIMATE negotiators from around the world gathered in Bangkok recently (28 September to 9 October, 2009) to advance talks towards a treaty for post-Kyoto regime -- 2012 under the United Nations Framework Convention on Climate Change (UNFCCC). The Bangkok talk was a part of a series of five major negotiating sessions leading up to the UN Climate Conference in Copenhagen in December, which will be further encrypted with pre-Copenhagen session in Barcelona (2-6 November 2009).

The Bangkok meeting was scheduled to organise the first part of the ninth session of the Ad Hoc Working Group on Further Commitments for Annex I parties under the Kyoto Protocol (AWG-KP) and the first part of the seventh session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) aiming at reducing the huge negotiating text into a consolidated and effective format. However, many more were issues raised in the meeting, of which divergent views on some important issues between developed (Annex- 1 countries) and developing countries (G-77 and China, LDCs) have created tension for future climate talks, particularly on reaching an agreement in Copenhagen.

The disagreement started following the US's proposal for discussion on mitigation elements under a separate sub-group, while G -77 and China group expressed their compunction by arguing that the proposal was irrelevant and would potentially obstruct the negotiation. The US, subsequently supported by the EU, Australia, Canada, Russia, Norway, Japan, Costa Rica and Colombia, wanted to include a proposal for all parties to "implement their respective nationally appropriate mitigation actions reflected in Appendix 1" ; "to formulate and submit low-carbon strategies that articulate an emissions pathway to 2050" under the heading "mitigation elements common to all parties". However, developing countries (G-77 and China group) strongly opposed the idea. Their argument is that the proposal is contradictory to the Convention and Bali Action Plan (BAP). The Convention and BAP clearly differentiated the mitigation commitments of developed countries and developing countries.

At the opening of the first session of the Ad-hoc Working Group on Long-term Cooperative Action in Bangkok, developing countries showed their dissatisfaction on developed countries' willingness to make progress on the constructive proposal by developing countries on climate change such as financial mechanisms, technology transfer and capacity building as directed in BNP. African group stressed on need for 5% of the GDP of developed countries to tackle climate change associated impacts in developing countries.

Bangladesh, a member of the LDCs, presented information on newly set up national fund for climate change and Climate Change Strategy and Action Plan. Along with many other developing countries, Bangladesh gave its consent in favour of G77 and China group's proposal on financial mechanisms, where they call for establishment of a number of funds for climate change mitigation and adaptation by developing countries. In case of funding sources, Bangladesh argued that it would be at least 1.5% of GDP from public sources of Annex-1 countries.

Meanwhile, the European Union has announced an euro 100 billion fund for poor countries. It is heartening, but the members contributions and modus operandi are yet to be fixed. We wish nothing disheartening occurs and this shows the path for other developed counties.

Regrettably, the promises of world leaders during the UN summit in New York to tackle climate change have not really translated into climate talk in Bangkok. Consequently, developing countries are worried about future climate negotiations. Even though developing countries are in favour of sustaining Kyoto Protocol after 2012 (Most people misunderstand that Kyoto protocol would be invalid after 2012. However, the reality is that the first commitment period will be finished in 2012 and there is option for second commitment period without terminating the protocol), but EU, Japan and other developed countries want to terminate the protocol and go for a new one.

Undoubtedly, emissions reduction by developed countries below 1990 levels are central to the climate change negotiation. But, problem lies in how much (US and Australia were not agreed to the conventional climate treaties to reduce their carbon emission, notably they did not ratified Kyoto protocol) would be reduced. UN Intergovernmental Panel on Climate Change (IPCC) proposed emissions cuts of 25 to 40 percent for developed countries by 2020 compared to 1990 levels. However, developing countries demand an aggregate cut of 40 percent at least, as many of the developing countries already experiencing huge climate change impacts such as increased intensity of tropical cyclones, torrential rain and consequently flood, drought etc.

Recent data shows that China exceeds US by carbon (source: Wikipedia, 2009) emissions and India is progressively increasing its industrial development, and consequently carbon emissions. Such emerging carbon emitters are imposing new challenges to climate negotiations. Developed countries (US and their supporters), therefore, sought for a unified regulation for all countries, which is now matter of deep concern in climate change regime. Their argument is that if there is no binding limit for emerging economies (China, India) then total carbon emission reduction target will not be fulfilled.

The United States and the European Union are advocating for global emissions cut of 50% by 2050 based on 1990 levels. To achieve the target they are calling for an 80% emission reduction by the US and 80-95% by the EU. However, developing courtiers are claiming that this proposal eventually target developing countries. To them, 80% cut by developed countries would mean that developing countries would have to reduce their own emissions in absolute terms by 20% by 2050, and on a per capita basis, this would mean a 60% cut in emissions reduction (Third World Network, 2009)

Although developing countries' per capita carbon emission is lower than developed countries, but if the current trend continued then soon developing countries' total carbon emission will exceed developed countries' due to high population growth and associated per capita carbon emission. Therefore, per capita carbon emission wouldn't be an instrument for climate negotiation, developed countries apprehend. They are looking for an international mitigation commitment instead of national mitigation commitment for developing countries.

Nevertheless, developing countries claim that international mitigation commitment that is common for all will potentially affect their growth. Their concern was best expressed in Venezuela's comment, "It was simply unfair, unreasonable and unhelpful for developed countries to hide their conflicting economic interests behind efforts to re-enact olden days' landgrabs with modern days' sky-grabs".

Debate is mounting on newly proposed concepts of 'carbon neutral development' or 'low-carbon societies' following a bill that has been passed recently by the US house of representatives, which gives the US president authority to impose financial charges (or taxes) on some imports coming from developing countries by arguing that they are not taking enough action to curb their Greenhouse Gas emissions. Developing countries are dissatisfied with such

attempts of the US and even with the negotiating text regarding 'carbon neutral development'. Their concern is that by such strategy 'climate change' will be an income source of the developed countries.

The US House of Representatives also agreed to harden the rules of intellectual property rights. Therefore, technology transfer, one of the building blocks of BAP, will be a matter of dispute in near future, developing countries dread. Martin Khor of South centre warns that this protectionism in the name of climate change is poisoning the North-South relations in the two negotiating arenas on climate change and trade.

Tallberg Foundation of Sweden in a recent report (Grasping the climate crisis, 2008) blamed developed countries for their delaying efforts to strengthen the international climate regime. They warned "even if best possible agreement signed in Copenhagen is likely to fail or be ineffective because of the lack of political will to prioritise environment over short-term economic and geopolitical strategic interests".

However, in spite of uncertainty, we are optimistic for an effective deal in Copenhagen. We hope for surviving the Anthropocene (the recent era is termed), the world leaders will reach an agreement in Copenhagen. Indeed, we are waiting to see a new morning after COP 15 when the global community will be united to pursue a common goal for saving our planet from peril.

The writer is a research associate at Unnayan Onneshan, an independent think-tank based in Dhaka.

Road to climate change risk reduction

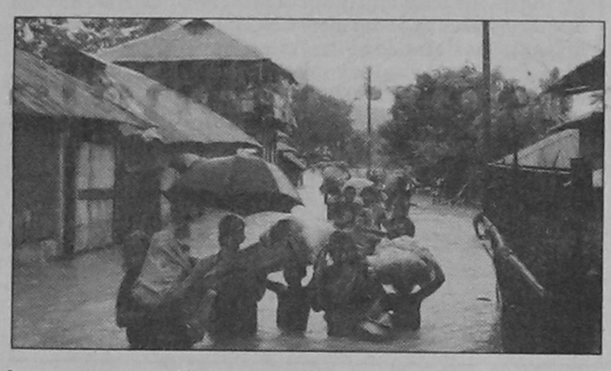
It is necessary that as early as possible global political leaders, heads of state and policy makers resolve the following important questions: 01.How much more can industrial or developed countries cut emission? 02. How much can developing countries slow the growth of their own? 03. How much money does the global community need to raise to help poor countries survive the effects of climate change?

MOHAMMAD MIZANUR RAHMAN

ONE of the UK's best known scientists, Professor James Lovelock, says only a catastrophe will prompt the world to tackle the threat of climate change seriously. He also said: "In the late 1930s when I was a student we knew that war was imminent, but there was no clear idea of what to do about it. We think that something unpleasant may soon happen but we are still as confused over what to do about it as we were in 1938.Our response so far is just an attempt to appease. The Kyoto agreement is uncannily like that of Munich, with politicians out of show that they do response but in reality are bidding for time."

In this context, Bangladesh is the most vulnerable country in the world on climate change issues. Until a few years ago, the words Tsunami, Sidr, Aila etc were virtually unknown in our country, but now there can be few who do not know what awesome consequences can result from such natural disasters. In addition, the rising sea water would penetrate the country's fertile land and ruin thousands of hectares of cultivable land in the coastal areas. There would be no existence of the Sunderbans (the world's largest mangrove forest and well recognised world heritage site) which would bring a great ecological imbalance. Just imagine how many rare species of flora and fauna would be lost forever!

There is no doubt that man made changes in the environment are influencing climate change and that it is high time for urgent action also by humans (governments and individuals) to check it. Our government, however, has taken climate change strategy and action plan, adaptation action plan, risk management and reduction activities on climate change issues. But we



have to act as quickly as possible for effective results.

Bangladesh's population is expected to increase by 130 million more people over the next 50 years. Climate change would likely exacerbate present environmental conditions that give rise to land degradation, shortfall in food production leading to rural poverty and urban unrest. About 15,000 Himalayan glaciers form a unique reservoir which supports perennial rivers such as the Indus, Ganges and Brahmaputra which, in turn, are the life line of millions of people in the sub-continent.

Bangladesh is already experiencing the adverse impacts of global warming and climate change. The impacts have been observed as -- change in rainfall patterns, increased frequency and severity of floods, droughts, storms, heat waves, besides sea level rise in the south and glacial melt on the north, etc. The socio-economic impacts of these changes are observed in the following sectors -- water resources, agriculture and forestry, food security, human health, also infrastructure and settlements e.g. displacement of inhabitants and loss of livelihood.

Next December the climate change conference is going to be held in Copenhagen. We hopefully look forward to its fruitful outcome. It is necessary that as early as possible global political leaders, heads of state and policy makers resolve the following important questions: 01.How much more can industrial or developed countries cut emission? 02. How much can developing countries slow the growth of their own? 03. How much money does the global community need to raise to help poor countries survive the effects of climate change?

Meanwhile, it is heartening to note that the European Union has agreed on an euro 100 billion fund for poor countries. Climate change risk reduction is a collective responsibility of all who inhabit the planet. It needs collective action. Otherwise we cannot control environmental catastrophe anywhere.

Mohammad Mizanur Rahman is a botanist and researcher.

Climate change impact on extended Hindu Kush-Himalayan region

Whatever we do to mitigate the climate change, global warming will be advancing in the coming years. It will take about 100-200 years to eliminate the effect of already emitted anthropogenic green house gas if whole mankind stops emitting GHGs. So, measures must be taken now to adapt to the changed climatic condition. ICIMOD can play a vital role in the way of adaptation by research and disseminating the findings to the governments in the HKH region.

MAHFUJUR RAHMAN

NOW all conscious people know at least some common consequences of global warming, the first and foremost being melting of glacier and sea level rise as its result. Mountains occupy 24% of the global surface area and are home to 12% of the world's population (ICIMOD, 2008). Mountain regions of this planet are not only vulnerable to climate change but also areas to visualize the impact of climate change since measuring the melting snow caps helps us understand the glacial retreat rate linked with climate change. The superb example of this is the Hindu Kush-Himalayan (HKH) region.

HKH range spans over 4.3 million km2 and the region includes areas of eight countries: Afghanistan, Pakistan, Nepal, Bhutan, China, India, Bangladesh and Myanmar. Few places on Earth can match the breathtaking splendour of the Himalayas. It contains varied geographical terrains and many unparalleled characteristics. Its towering peaks and secluded valleys have inspired naturalists, adventure seekers and spiritualists for centuries. Its diverse landscapes harbour rare creatures like red pandas, snow leopards and one-horned rhinos.

Although this region has been romanticized as a mythical paradise, it is fragile now facing many challenges. Climate change is melting its mountain glaciers. It is often referred to as the 'Third Pole' and the 'Water Tower of Asia,' as it stores a large volume of water in the form of ice and snow, and regulates the flow of the 10 major river systems in the region. But this storehouse is in danger now.

HKH region is considered to be the mountainous area of Asia expanding from south to the central Asia but extended HKH incorporates the adjacent river basins also.

Both direct instrumental records and environmental proxy records indicate that historical and recent changes in climate in many mountain regions of the world are often greater than those observed in the adjacent lowlands. Likewise, the rates of warming in the HKH region are significantly higher than the global average. The first and foremost effect of global warming is the melting of glacier -- the snow line will change by glacial retreat. The change in snow line of HKH region due to global warming will also affect the environment and livelihood of people in its river basins.

Himalayan glaciers accumulate most of their snow in summer from "solid" monsoonal precipitation. As the atmospheric temperature continues to rise, the snowline (zero temperature line) continues to shift toward higher altitudes leading to more rain (Hasnain 2002, Kadota et al. 1993). Actual and potential changes in climatic parameters can have strong impacts on the cryospheric: a change in the snowline, change in duration of snow cover, an increase in cryogenic hazards such as ice and snow avalanches, glacier recession, formation and break-out of moraine-dammed lakes, etc.

Trans-boundary effect

More immediately, as the glaciers retreat, glacial lakes form behind some of the now exposed terminal moraines at elevations ranging from 3000 masl in the west to 5000 masl in the east of the region. Rapid accumulation of water in a glacial lake can lead to a sudden breaching of the unstable moraine dam. This results in the discharge of huge amounts of water and debris, a form of flash flood known as glacial lake outburst flood (GLOF), which can have catastrophic effects downstream.

These high frozen reservoirs release their water at the top of the watersheds of the ten major rivers in the region. These rivers wind their way through thousands of kilometers of grazing, agricultural, and forest lands and are used as renewable sources of irrigation, drinking water, energy, and industry, serving some 1.3 billion people who live in the great river basins. On their journey, they recharge aquifers and many underground water sources. However, this glaciers are retreating in the face of accelerating global warming and are particularly vulnerable to climate change to the point that the long term loss of natural fresh water storage is likely to have severe effects on communities downstream.

The real threats

The eastern Himalayas has the largest concentrations of glaciers outside the polar regions -- which hold vast stores of fresh water. The region's agriculture and power generation are fully dependent on the freshwater supply fed by the discharges of the Himalayan glaciers. Continued climate change is predicted to lead to major changes in fresh water flows with dramatic impacts on biodiversity, people and their livelihoods.

The glaciers of the greater Himalayan region are nature's renewable storehouse of fresh water from which hundreds of millions of people downstream have benefited for centuries at the time in the year when it is most needed - the hot, dry season before the monsoon. One of the most visible impacts of climate change in the Himalayan region is the retreat of the glaciers, many at higher rates than in other mountain ranges.

Continued deglaciation could have a profound impact on the water in the ten large river basins originating in the HKH region. River discharges are likely to increase for some time due to accelerated melting, but the flow is then likely to be lower within next 30-50 years as the storage capacity of the glaciers will go down. The effects are likely to be felt most severely in the arid areas of the region specially parts of India which are already very dry.

Glacial lake outburst

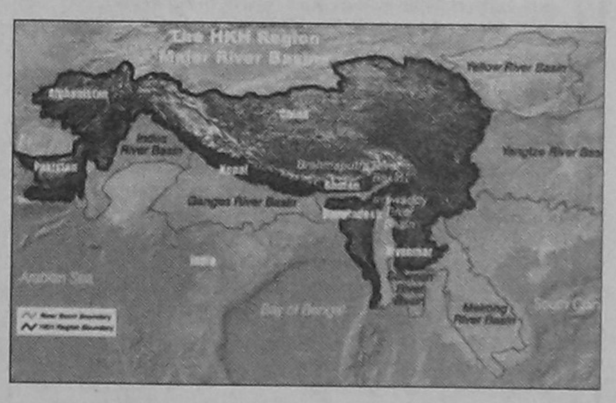
Glacial lakes have formed in many places in the area at the foot of retreating valley glaciers. An inventory compiled by the International Centre for Integrated Mountain Development (ICIMOD) identified 8790 glacial lakes within selected parts of the HKH. Some 204 of the glacial lakes were considered to be potentially dangerous, that is liable to burst out leading to a glacial lake outburst flood (GLOF). There have been at least 35 GLOF events in Bhutan, China and Nepal during the 20th century (ICIMOD, 2009). It is suspected that the number and intensity of GLOF will increase due to melting of Himalayan ice.

Increased hazards

The HKH is one of the most complex, dynamic, and intensive risk hotspots with earthquakes, floods, flash floods, landslides, droughts, and wild fires affecting it off and on. This is due to the physical and socio-economic characteristics of the region combined with the changing risk factors such as climate change, population growth, and economic demand. Floods and droughts are likely to increase as a result of a number of factors. An increase in seasonal change is predicted with more precipitation during the wet season leading to increased flood risk, and potentially drier dry season with increased risk for drought. Changes in the monsoon regime might lead to an overall increase in precipitation in some areas, and a decrease in others.

Hampered ecosystem

Climate change is affecting ecosystem services by affecting forest type and area, its primary productivity, species populations and migration, occurrence of pests and diseases, and its regeneration. The increase in greenhouse gases is also affecting species composition and changing the ecosystem structure, which in turn affects ecosystem function. The interaction between elevated CO2 and climate plays an important role in the overall response of net primary productivity. Climate change will have a



profound effect on the future distribution, productivity, and ecological health of forests.

There could be a significant reduction in cryospheric ecosystems and their services. A major expansion of the tropical zones would cover most of the middle mountains and inner valleys, whereby the quality and quantity of ecosystem services are likely to change dramatically for the worse.

Affected well-being

Climate change can affect people's wellbeing in a variety of ways. It is likely to exacerbate the existing food insecurity and malnutrition. Vector-borne diseases such as malaria and dengue fever are likely to move to higher altitudes. Water-borne diseases are also likely to increase with the increasing water stress accompanied by the lack of safe drinking water and basic sanitation in the region. Deaths and morbidity associated with extreme and erratic weather are also likely to increase. Climate change will have differentiated impacts which could be more severe for women, and the poor and the marginalized.

Conclusion

Hindu Kush-Himalaya region is highly vulnerable to the inevitable climate change. The mountain is melting in the monsoon at a higher rate and giving rise of numerous adverse effect like glacial lake outburst floods, impacting on water availability, disrupting ecosystem services, increasing the intensity of floods and drought and after all hampering the livelihood of over 1.3 billion people. Whatever we do to mitigate the climate change, global warming will be advancing in the coming years. It will take about 100-200 years to eliminate the effect of already emitted anthropogenic green house gas if whole mankind stops emitting GHGs. So, measures must be taken now to adapt to the changed climatic condition. ICIMOD can play a vital role in the way of adaptation by research and disseminating the findings to the governments in the HKH region.

Mahfujur Rahman works as a Research Officer at Bangladesh Center for Advanced Studies (BCAS).