

Global warming and climate change: Challenges ahead for Bangladesh

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Climate change appears to be a serious threat to humanity and ecosystem. It is said that with global warming biogeographic atmosphere of the world is changing gradually. Scientists predict catastrophic impact of climate change associated with sea level rise enormous coastal areas of some densely populated countries going under water.

Climate change might result in shifting of climate zones, changing agricultural productivity, forest biodiversity and other ecosystems. Frequency and duration of natural disaster might increase. It may have direct or indirect impact on public health with increased incidence of various menacing diseases like dengue, malaria etc. A number of initiative launched globally to address this disastrous situation including United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol but the global warming barometre is rising higher than expected. A portion of IPCC report mentioned in the UNEP's Global Environment Outlook 2000 says:

"The IPCC mid-range scenario projects an increase in global mean temperature of 2.0° C, within a range of 1.0 to 3.5° C, by the year 2100, the largest warming in the

past 10,000 years. Average sea level is projected to rise by about 50 cm, within a range of 15 to 95 cm, by the year 2100. A 50-cm rise in sea level would lead to the displacement of millions of people in low-lying delta areas and a number of small island states could be wiped out (IPCC 1996b)".

This critical issue of climate change is a matter of concern for Bangladesh also. Now-a-days Bangladesh is much cited in the global environment discussion as one of the most vulnerable countries of the world. Cyclones, floods, storm surges, droughts are very frequent. Out of 54 Commonwealth countries Bangladesh stands second after Vanuatu in vulnerability ranking. In the recent past it witnessed several cyclones and floods, which caused huge casualties with colossal damage to property and infrastructure. Although Bangladesh achieved commendable success in the field of disaster management, relief and rehabilitation, it is possible that global climate change may result in even worse trends in the future.

Bangladesh, a deltaic country, is largely flat and nearly 50 per cent of the landmass has an elevation less than 10 metre above sea level. Several studies were undertaken on the vulnerability of Bangladesh to the climate change, particularly to

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the sea level rise. In the IPCC report of 1995 it was estimated that one metre sea level rise could displace nearly 15 million people in Bangladesh. Projected impacts include:

- λ Land loss and population displacement
- λ Increased flooding of low-lying coastal areas
- λ Agricultural impacts (e.g., loss of yield and employment) resulting from inundation, salinization, and land loss
- λ Impacts on coastal aquaculture
- λ Impacts on coastal tourism, particularly the erosion of sandy beaches.

The report also said: "The Ganges-Brahmaputra delta is one of the world's most densely populated areas, and the combined effects of subsidence and sea-level rise could cause serious drainage and sedimentation problems, in addition to coastal erosion and land loss. With higher sea level, more areas would be affected by cyclonic surges; inland freshwater lakes, ponds, and aquifers could be affected by saline and brackish-water intrusion. The

present limit of tidal influence is expected to move further upstream, and increases in soil salinity, as well as surface-water and groundwater salinity, may cause serious water supply problems for drinking and irrigation over large areas (Alam, 1996). Reduced dry-season freshwater supply from upstream sources may further exacerbate salinity conditions in the coastal areas of Bangladesh. These impacts clearly would have immense socioeconomic costs (The Regional Impacts of Climate Change, Cambridge University Press, P.401)."

This depressing scenario projected in the 1995 report is even worse now as IPCC projected more warmer world in future increase in the average temperature 50 per cent higher than predicted just half a decade ago. This dismal projection combined with other environmental degradation and over population puts enormous stress on the environment and stands between the choices of an uncertain future. Now, it's time to work with intelligent environmentalism,

otherwise millions of people will be forced to migrate further inland and even the largest mangrove forest (the Sundarbans), a world heritage site of pride will go in oblivion for ever.

What Bangladesh would do in this disastrous scenario while it contributes little in these warming process? For Bangladesh little GHG emission is survival emission to ensure bread and butter for her poor people. If Bangladesh cuts all of its emissions, it will make people starving but nothing will happen to stop the forthcoming peril. Since the Bush administration has taken office in the US, Kyoto Protocol seems dead or at least in a slumber. If US agrees to ratify the protocol now, yet nothing will be achieved in the short run. "In the short run, there's not much chance of halting global warming, not even if every nation in the world ratifies the Kyoto Protocol tomorrow. The treaty doesn't require reductions in carbon dioxide emission until 2008. By that time a great deal of damage will already have been done (Time, April

9, 2001).

Bangladesh is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and a signatory to the Kyoto Protocol. Government puts much emphasis on this global issue. So far, Bangladesh actively participated in all conferences of the parties, working group meetings, successfully drawn attention of the world community on the issue of country's vulnerability. At home number of conservation and afforestation programmes have been undertaken, including Coastal Green Belt Project, to halt cyclone and tidal surge and to enhance sink; ODS phase out programmes are being implemented. Simultaneously environmental rules and regulations are framed and enacted, including "Environmental Court Act 2000," in response to the needs and priorities, that as a whole might improve environmental consciousness in the country. But for addressing the colossal issue, these are not sufficient.

To my view, Bangladesh should think locally for a sustainable future evolving mitigation policies and

strategies to combat the adverse impact of the climate change that may result in displacement of millions of people from their habitat. Would Bangladesh be able to face this grave consequence of loosing its coastal areas and accommodating one tenth of its population in the mainland that would likely not vanish but will carry the scar of a catastrophic disaster associated with the loss of bio-diversity, threatened ecosystem, contaminated water, numerous diseases and widespread environmental pollution? In its present context, it is difficult to answer, but we must answer. We don't want to see our coasts in peril, people displaced, heritage lost. We don't have reason to doubt on the report as we have no different research-based information that disprove existing prediction. We have one task ahead that is to prepare for the possible consequences. But unless we can apprehend the gravity and magnitude of the climate change efforts will be

futile. Bangladesh should take immediate action programme based on sound scientific research. To this end Bangladesh may think of forming a scientific panel comprising of scientists and leading researchers to assess the vulnerability including the magnitude of climate variability in terms of natural disaster to provide the best guidelines for policy makers to address the issues in global warming that 21 century might encounter. It is also important to have a working group comprising of a law and policy maker, scientist a researcher and a civil society representative to review the findings of the scientific panel and to recommend appropriate policy initiatives and action programme to be undertaken immediately. This integrated approach will help us to develop climate change adaptation strategy for the country to face future challenges.

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All health information to keep you up to date

Around the world

Work iron into your diet

Cooked vegetables are superior to raw ones when it comes to getting your Recommended Dietary Allowance of iron. Research presented at the American Chemical Society showed that cooking vegetables makes it easier for your body to absorb the iron they contain. Iron is found in green leafy vegetables, peppers, cabbage and tomatoes. It can also be obtained from meat and eggs. Cooking increases the available iron in cabbage from about 7 per cent to over 26 per cent and in green peppers from 17 to 32 per cent. Cooking leafy greens in iron pots greatly increases iron availability especially if you and acidic foods like tomatoes during the cooking process.

The researchers also found that it's best to eat cooked vegetables right away. Storing them overnight, even in the refrigerator, diminishes the iron availability by up to one half.

Plain facts: McDonald's Filet-O-Fish, fired and slathered with tartar sauce, has 470 calories and 26 grams of fat. Oddly enough, a cheese burger has only 320 calories and 13 grams of fat. On the other hand, a large order of fast food French fries contains, on average, 470 calories and 20 grams of fat, almost as much as the Big Mac that it accompanies. Though the fries have less cholesterol boosting saturated fat than the burgers, they usually contain high levels of "trans" fat, which is as bad for your heart as saturated fat.

Tomorrow: Small act, big fact

Causerie: Voter slippage

ALIF ZABR

In the recent West Bengal elections, Trinamul Congress did not come up to expectation. This failure could be due to the Voter Slippage Factor. Slippage is a technical term, and the concept may be applied to politics and elections. Political parties and leaders are prone to this type of hidden attack, which is revealed at the wrong time, when it is too late.

The Bengalees are conservative

by nature, and have seen enough *jwar-bhata* in this deltaic region. Slow and steady wins the race, but the CPI (M) do not project the image of a tortoise. Anyway, in the year 2001, some turbulence has been created, symbolising the advent of change after one generation. Change is sought for progress, if not variety.

The prosperity curve is flattening in the industrialised countries, and the Asian nations have to come out of the deep slumber after the initial

surge of the rise of civilisation in this part of the world, millenniums ago (note the cycles of history). The leaders have to grapple with vortices and eddy currents, not to speak of occasional whirlpools. We are familiar with *kalbaishakis*, including the political kind. We have lessons to learn from the politics of the peninsula.

Don't get fooled by virtual reality it is only seen on the computer screen. The technology of 'digital politics' has not yet arrived, although

we have seen the first pioneer, who failed gloriously. What happened in West Bengal was the voter gap, not the political gap. The former communication gap has to be fine-tuned. But our politicians never go for fine-tuning. It is all 'crash programmes' make hay while the sun is not shining.

Evolutionary politics has yet to take root in the Third World: that is why where are too many revolutions. A high-rpm engine wears out faster than a slower one. Tradition,

conservatism, illiteracy, and low standard of living do not provide the background infrastructure the political leaders crave for. Speed synchronisation is required between the leaders and the led. There is yet another invisible gap between the society and politics.

How to create channels of voting power the way laser beams are directed? Why have elections, and why the voters vote? Change is an expectation a human-frailty, although in-built. The politicians

enjoy the yearly changes in the seasons (winter, spring, summer, and autumn), but secretly wish it were not true for politics.

We have 'car politics' (mechanically-propelled), not rickshaw politics, propelled by the voters. The UN system has no programme for handling political pollution, may be out of respect for local autonomy. This pollution can be handled by the voters themselves, provided the right sustainable voting environment is made available.

Excerpts from the 'declassified' main report of Hamoodur Rahman Commission

MILITARY ASPECT - XIV

Surrender in East Pakistan

We turn now to an examination of the circumstances immediately preceding and leading to the surrender of Dacca. It is from 6th December onwards that messages started coming in from Dacca depicting an increasingly grim military situation. We have in another part of this report stated the situation in the United Nations, as it developed, and do not mean to detail it here all over again. Suffice it to say that, despite Gen Yahya's earlier reluctance to approach the Security Council, by this time that body had been moved by the United States of America. On 6th December, 1971 the eastern command sent a fairly comprehensive message (G-1233) narrating the military position in some detail and stating that the command was now reaching pre-planned line of defences. The signal urged expedition of action referred to in an earlier signal from Rawalpindi promising foreign help.

Again on 7th eastern command inquired when this foreign help was to be expected and it was informed that the matter was receiving "urgent consideration at the other end". On the same day, however, namely, the 7th, the Governor of East Pakistan, Dr Malik signalled as follows: - "A 6905 () TPSEC () for President of Pakistan () it is imperative that correct sit in East Pakistan is

brought to your notice () I discussed with General Niazi who tells me that they are fighting heroically but against heavy odds without adequate arty and air support () rebels continue cutting their area and losses in egypt and men very heavy and can not be replaced () the front in eastern and western sectors has collapsed () loss of whole corridor East of Meghna river can not be avoided () Jessore has already fallen which will be a terrible blow to the morale of pro-Pakistan elements () civil administration ineffective as they can not do much without communication () food and other supplies running short and nothing can move from Chittagong or within the province () even Dacca city will be without food after 7 days () without fuel and oil there will be complete paralysis of life () law and order situation in areas vacated by army pathetic as thousands of pro-Pakistan elements being butchered by rebels () millions of non-Bengalis and loyal elements are awaiting death () No amount of lip sympathy or even material help from world powers except direct physical intervention will help () If any of our friends is expected to help that should have an impact within the next 48 hours () if no help is expected I beseech you to negotiate so that a civilized and peaceful transfer takes place and millions of lives are saved and untold misery avoided () it is worth sacrificing so

much when the end seems inevitable () if help is coming we will fight on whatever consequences there may be".

To this the President on the same day replied as follows: - "From President for Governor () your flash signal number A-6905 dated Dec refers () all possible steps are in hand () full scale and bitter war is going on in the West Wing () the world powers are very seriously attempting to bring about a ceasefire () the subject is being referred to the General Assembly after persistent vetoes in the Security Council by the Russians () a very high-powered delegation is being rushed to New York () please rest assured that I am fully alive to the terrible situation that you are facing () Chief of Staff is being directed by me to instruct General Niazi regarding the military strategy to be adopted () you on your part and your government should adopt stringent measures in the field of food rationing and curtailing supply of all essential items as on war footing to be able to last for a maximum period of time and preventing a collapse () God be with you () we are all praying".

On 9th a signal appears to have arrived from the governor bearing No. A-4660, of which we have not been able to trace a copy anywhere. However, the answer that was sent to him on the same day by the president, being message No. G-

0001, would indicate that the governor was making some proposals which would result in the termination of hostilities on the eastern front.

The message is in these terms: - "From President to Governor repeated to Comd Easter Command () your flash message A-4660 of 9 Dec received and thoroughly understood () you have my permission to take decision on your proposals to me () I have and am continuing to take all measures internationally but in view of our complete isolation from each other decision about East Pakistan I leave entirely to your good sense and judgement () I will approve of any decision you take and I am instructing General Niazi simultaneously to accept your decision and arrange things accordingly () whatever efforts you make in your decisions to save senseless destruction of the kind of civilians that you have mentioned in particular the safety of our armed forces ... you may go ahead and ensure safety of armed forces by all political means that you will have to adopt with our opponent".

It is to be remembered that by this time Mr Bhutto had already left for the United Nations, although he in fact arrived in New York on the 10th. Clearly this message left the matter entirely to the good sense and judgement of the governor and the president undertook to approve of any decision that he might take. It would seem that it is in conse-

quence of this that the famous message of Gen Farman Ali, handed over to the Assistant Secretary General, Mr Paul Mark Henry, was delivered. That this became known immediately before Mr Bhutto's arrival in New York and the ensuring impact on our position at the United Nations we have dealt with elsewhere. General Farman Ali did in fact send a message protesting against being made responsible for offering surrender when all that he had done was to sign a document under instructions of the governor in exercise of authority conferred upon the latter by the president. Be that as it may, upon the 10th the governor informed the president that he was, in pursuance of the authority given to him, issuing a note to Mr Henry; this message is No A-7107 and is as follows: -

"A-7107 () TOPSEC () for President of Pakistan () your G- 0001 of 092300 dec () as the responsibility of taking the final and fatal decision has been given to me I am handing over the following note to assistant secretary-general Mr Paul Mark Henry after your approval () note begins () it was never the intention of the armed forces of Pakistan to involve themselves in an allout war on the soil of East Pakistan () however ... a situation arose which compelled the armed forces to take defensive action () the intention of the government of Pakistan was always to decide the issue in East Pakistan by means of a political solution of which negotiations were afoot () the armed forces have fought heroically against heavy odds and can still continue to do so but in order to avoid further bloodshed and loss of innocent lives I am making the following proposals () as the conflict arose as a result of political cause ... it must end with a political solution () therefore having been authorized by the president of Pakistan to hereby call upon the elected representatives of East Pakistan to arrange for the peaceful formation of the government in Dacca () in making those offer I feel duty bound to say the will of people of East Pakistan would demand the immediate vacation of their land by the Indian forces as well () I therefore call upon the United Nations to arrange for a peaceful transfer of power and request () one () an immediate ceasefire () two () repatriation with honour of the armed forces of Pakistan to West Pakistan () three () repatriation of West Pakistan personnel desirous of returning to West Pakistan () four () the safety of all persons settled in East Pakistan since 1947 () five () guarantee of no reprisals against any person in East Pakistan () in making this offer ... I want to make it clear that this is a definite proposal for peaceful transfer of power and the question of surrender of the forces would not be considered and does not arise and if this proposal is not accepted the armed forces will continue to fight to the last man () note ends () General Niazi has been consulted and submits himself to your comd () request your immediate approval".

TOMORROW: MILITARY ASPECT- XV

Garfield®

by Jim Davis

