

Climate Change Negotiations and Bangladesh Strategy

by Dr Mizan R Khan

Our environmental problems should be articulated in terms of our nation's very survival, and therefore, maintenance of nation's security. This requires a total reorientation of our security thinking towards issues of low politics, such as economic development, poverty alleviation, population control and management of natural resources, etc.

IN a previous piece (DS 13 Nov) I have discussed the issues of climate change that COP 4 at Buenos Aires had to deal with. The North-South divide over burden-sharing still persists. The issues of commitments to reduction targets of greenhouse gases (GHG) by the South and the needed "additional" financing for the purpose dominated the discussion. There is broad unity of views about these issues among the Southern countries. Their arguments are based on ecological interdependence and principles of equity and fairness. However, the Northern countries, where the "polluter-pays-principle" is being applied in their domestic context, appear not yet ready to accept the principle for international application. Another problem is that the Southern countries as a broad grouping appear not forceful enough to bear on the North for adopting the principles of equity and fairness.

Divide within the South
There are great differences within the South, because of different problems and priorities. For example, Africa is more concerned with food security, Latin America is preoccupied with debt, South Asia is concerned with alleviation of poverty and development, etc. This diversity in approaches arises from different levels of development, access to energy resources and vulnerabilities from climate change; a) there are great differences regarding GHG emissions. Only six developing countries — Brazil, China, India, Mexico, Saudi Arabia, and South Africa — are responsible for 63 per cent of all GHG emissions from the South; b) oil exporters oppose limits in CO₂ emissions, and are against any carbon tax; c) there are those island nations and low-lying countries who are most vulnerable to the impact of climate change. This group also contributes least to CO₂ emissions and contains many of the poorest countries. The AOSIS is a distinct sub-group and comprises those states most vulnerable to sea-level rise, floods, hurricane, cyclones etc.

The existence of these different interests and attendant policy positions make it very unlikely that a common negotiating position can be developed by the South. Thus, it will be more rational and wise to fix some macro parameters of Southern unity, such as the principle of per capita emissions, additional funding, technology transfer and capacity building, democratization of global environmental governance etc. Within this broad parameter, specific positions can be worked out by groups of countries within the South, depending on individual national interests.

Strategy of Bangladesh
Bangladesh has signed the Climate Convention. As the

most densely-populated deltaic, low-lying country, she is seriously vulnerable to climate change, induced largely by activities of other nations. Several studies including the "Asia Least-cost Greenhouse Gas Abatement Strategy (ALGAS), Bangladesh" have documented such vulnerable vulnerabilities. In the recent floods, two-third of our territory was under water for the longest period in our history. A one-meter sea-level rise will permanently inundate one-third of our territory, displacing one-quarter of our population. This casualty far outweighs the combined population of all the island states of the world. Therefore, our predicament naturally aligns us with the group called the Association of Small Island States (AOSIS). The Foreign Minister of Bangladesh in his recent speech at the UN General Assembly has projected our vulnerabilities to global warming and the consequent sea-level rise.

Facing such vulnerabilities by Bangladesh warrants concerted action at different levels — international, national and local. Compared to most other developing countries, Bangladesh has some positive features, which can be forcefully projected in any climate negotiations:

a) Democratic Governance: Experience has shown that by and large, countries with best environmental practices are the ones with strongest flow of democratic input from the base to the top as well as high degree of local self-governance. If investments in land, water and forest resources are to bear fruit, it is vital that an all-out effort be made to strengthen democracy at grassroots, built upon principles of participatory governance. Democracy in Bangladesh is well underway, and it is decentralizing its governance process down to the local level. The initiation of the National Environmental Management Action Plan (NEMAP), based on people's participation, has been widely acclaimed by communities beyond Bangladesh. She can confidently project these developments to donors, both bilateral and multilateral, with the argument that global sustainability ultimately boils down to national and local-level sustainability.

b) Gas-based Power Generation: Unlike many other developing countries, which are dependent on coal and oil for power generation, and whose contribution to CO₂ are greater, Bangladesh has sufficient natural gas, a relatively benign fuel. And she is initiating gas-based power generation through private sector initiatives, which will greatly enhance efficiency and reduce system losses. Bangladesh can project this aspect to the governments, NGOs and consumers of the North during climate negotiations.

c) Success in Population Control: The success, though limited till to date, of Bangladesh in controlling population is noteworthy. Her experience has invalidated the western concept of demographic transition. The latter assumed that an enhancement of living standard of people at a sufficient level automatically brings down the desired size of the family. In other words, the assumption was that development was the best contraceptive. But Bangladesh has shown that "contraceptive is the best contraceptive." Once they are made available to the poor, they really opt for smaller family. This experience in Bangladesh has been highly acclaimed by the international development agencies. Bangladesh can project this success in climate change negotiations.

There are mechanisms and specific provisions in the FCCC and Kyoto Protocol for assisting the specially disadvantaged and particularly vulnerable groups of countries to meet the costs of adaptation. With good home works done, Bangladesh can surely benefit from these provisions. Below are some of the steps that Bangladesh can incorporate in her climate negotiation strategy:

a) Tradable Emission Permits: A new market-based instrument called TEP has been approved at the Kyoto conference. If the principle of "equal entitlements" is agreed upon, Bangladesh, which emits just a fraction of a ton of carbon per capita, and which would be several orders of magnitude below its per capita entitlements, can trade with industrialized countries struggling to meet its emission reduction targets. The money could be invested in energy-efficiency measures and in development of solar energy.

b) Clean Development Mechanism: Kyoto has approved for creation of a CDM, its purpose being "to assist non-Annex Parties in achieving sustainable development," as well as "to assist Annex-1 Parties in achieving compliance with their quantified emission limitation and reduction commitments under Article 3." The details of the mechanism, such as the structure and operational modalities are yet to be worked out. Bangladesh can initiate proposals so that it is governed democratically, along the lines of GEF, with representation of both the North and South. Besides, the World Bank has already initiated a US \$110 million Carbon Initiative Fund (CIF). Bangladesh needs to develop projects so as to benefit from these novel mechanisms.

c) Joint Implementation/Activities Implemented Jointly (JI/AIJ): A sub-set of emissions trading is "joint implementation", rechristened later as "activities implemented jointly." Essentially, AIJ offers investors from the North a way to trade capital and

technology for use of the South's "ecological space." How can this concept be operationalized? How can Bangladesh benefit from AIJ programmes? What are the projects that Bangladesh can take up for AIJ with industrial country governments/companies? Bangladesh is yet to initiate any AIJ project with any counterpart in the North. So this should be an area of vital importance for Bangladesh strategy.

d) Compliance Mechanism: Kyoto Protocol contains no stipulations for sanctions in the event of non-compliance to legally-binding commitments by any party. So the agreement needs tools to enforce compliance to commitments or deter emission profligacy by any party. Bangladesh can propose that international inspectors be appointed, along the lines of the International Atomic Energy Agency to monitor compliance. In the event of non-compliance, appropriate monetary compensations, sanctions or embargoes can be applied.

e) Capacity Building: Though Bangladesh already has a core team of experts on climate issues, yet the managerial, technical and diplomatic capacities are not sufficient to handle the issues. The Climate Convention and Kyoto Protocol have provisions for promoting and strengthening endogenous capacities and capabilities through foreign education and training programmes. The IUCN and Swedish IDA set up a Trust Fund in 1990 to help developing countries for technical and legal assistance in environmental and conservation legislation. So Bangladesh can chalk out a long-term plan for human resource development for environmental protection.

f) Environment-oriented Foreign and Defense Policies: Finally, in view of our all-pervasive predicaments to climate change, Bangladesh should refocus its foreign and defence policies. Our environmental problems should be articulated in terms of our nation's very survival and therefore, maintenance of nation's security. This requires a total reorientation of our security thinking towards issues of low politics, such as economic development, poverty alleviation, population control and management of natural resources, etc. There is already a growing international appreciation of such a security perspective. Bangladesh in her environmental diplomacy can reinforce this trend. This will sustainably benefit Bangladesh as well as the comity of nations struggling to cope with human-induced change on our planet Earth.

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Carbon Sinks Expected to Help Fight Global Warming

by Jim Fuller

If not properly managed, forests and other vegetation can also be a source of carbon emissions. When forests are cleared or otherwise degraded, the carbon that they had stored is released into the atmosphere as carbon dioxide.



NEGOTIATORS at the climate change conference in Buenos Aires have agreed to move ahead with studies of natural systems such as forests that absorb carbon dioxide from the atmosphere and help prevent global warming. US officials told reporters November 9 that a workshop would be held in the United States early next year to help clarify the role that forests, plants and other so-called carbon "sinks" might play in helping developed countries reduce carbon dioxide and other greenhouse gas emissions as required by the Kyoto Protocol.

The protocol was adopted at the last major climate change conference, held in December 1997 in Japan. The results of the workshop will become part of a special report due out in mid-2000 on ways to measure and verify carbon sinks. The report is being prepared by the Intergovernmental Panel on Climate Change (IPCC) — an official advisory body to the world's governments on the state of the science of the climate change issue.

Carbon sinks are natural systems that absorb carbon dioxide from the atmosphere and store it in plants, trees and wood products. Carbon dioxide, produced by the burning of fossil fuels like coal and oil, is one of the main greenhouse gases that cause global warming.

If not properly managed, forests and other vegetation can also be a source of carbon emissions. When forests are cleared or otherwise degraded, the carbon that they had stored is released into the atmosphere as carbon dioxide. Researchers estimate that deforestation currently results in about 20 per cent of carbon dioxide emis-

sions worldwide, and that afforestation — planting new forests — and reforestation draw carbon dioxide from the atmosphere.

The Kyoto Protocol allows developed countries to count changes in carbon sinks since 1990 — such as changes in forest cover or land use — to help meet their carbon dioxide emissions targets. Such changes, such as deforestation, can also make it harder for a country to meet its target.

The protocol also requires these nations to come up with a baseline assessment for 1990 of their greenhouse gas emissions from all sources — including changes in land use — and of their carbon stocks — or the amount of carbon stored in sinks such as forests and plants.

The protocol says the emissions reduction targets of developed countries can be adjusted for "verifiable changes in carbon stocks" due to "direct human-induced activities of afforestation, reforestation and deforestation since January 1, 1990."

But the protocol is not clear about how to calculate forest carbon stocks and whether developed nations can use forestry projects in developing countries to claim carbon credits. The workshop to be held in the United States and the IPCC special report are expected to help clarify the carbon dioxide-forest connection.

The process began with a workshop in Rome last September that brought together experts from government, universities and international organizations to discuss the afforestation, deforestation and reforestation aspects of sinks.

The IPCC special report will analyze not only those aspects of sinks, but also other cate-

gories such as land use and forestry changes in terms of sinks. Ambassador Mark Hambley, special negotiator on climate change, told reporters at an earlier press briefing.

"We need to understand a lot of key issues," said IPCC Chairman Robert Watson. "We need to understand how accurately we measure above-ground biomass, below-ground biomass and soil carbon; we need to understand how you take issues like pest infestations and forest fires into account; we need to understand, in essence, what is a direct human activity from an indirect human activity."

Watson said climate change experts must even find environmentally sound definitions for things as basic as a "tree" and a "forest."

"These are not defined in the Kyoto Protocol," he said. "I've come across 94 definitions of a forest. Every one has different implications for Kyoto. So there's a lot of work that needs to be done."

Dan Lashof, a senior scientist at the National Resources Defense Council, says what's needed to fill the gaps in knowledge about carbon sequestration in forests is a comprehensive system for monitoring carbon stocks that combines remote sensing with ground-based sampling. This must include a global effort that provides consistent data on carbon sinks from country to country.

Lashof added that uncertainty in this area "could undermine any significance of the Kyoto Protocol."

Melinda Kimble, acting assistant secretary of state for Oceans and International Environmental and Scientific Affairs, said the measuring of carbon sinks is crucial for

countries like the United States that have large land masses and forest cover, and equally important for developing countries going through land use changes such as deforestation or farming practices that release carbon from the soil.

"It's vital that we get a comprehensive accounting of the carbon cycle," Kimble said. "It's critical to countries like North America and Canada that sinks be factored into the process. We have large land masses, wide forestry areas, big agricultural production sectors that can actually contribute very successfully, through sound agricultural management, to effective remediation or off-sets for greenhouse gas emissions in other sectors," such as the industrial sector.

According to the U.S. Department of Agriculture's Forest Service, forests in the United States have a current standing inventory of about 60,000 million metric tons of sequestered carbon. The total carbon in U.S. forests increases a net of 200 million metric tons annually.

U.S. officials told reporters November 9 that climate change negotiators in Buenos Aires also reached agreement on how to deal with chemicals used to protect the Earth's ozone layer, but also have the unfortunate side effect of being potent heat-trapping gases that contribute to global warming.

But officials acknowledged that discussions dealing with other issues — such as technology transfers to developing countries and whether commitments made by countries so far are enough to tackle the climate change problem — remain unsettled. — *USIA Feature*

For an Insulin-free Life

by Dr Arup Ratan Choudhury

Basic management of diabetes involves diet and exercise, and when these prove inadequate, oral hypoglycaemic agents or insulin may be required. Thus, the aim of effective management of this disease is the prevention of complications, and to impede their progress when they develop.

WORLD Diabetes Day, held on November 14 every year, aims primarily at educating the public about the causes, symptoms, treatment and complications associated with diabetes and making them aware of the seriousness and magnitude of this chronic disease.

First observed in 1991 in response to a growing concern over the escalating incidence of diabetes around the world, World Diabetes Day has grown in popularity.

The International Diabetes Federation (IDF), in association with the World Health Organization (WHO), prepare materials for distribution and offer advice and assistance to the member associations. However, since difference in culture, level of education and resources across the globe makes it extremely difficult to develop a universally effective campaign strategy, the IDF produces the materials and formulates the guidelines, leaving the member associations develop their own line of action.

An extensive range of activities features the World Diabetes Day. Each year the activities, varying from one country to the other, focus on specific issue, reflected in the slogan. For example, in 1991 the slogan was "Diabetes goes Public". A Prob-

lem of All Ages in All Countries" in 1992, "Growing up with Diabetes" in 1993, "Diabetes and Growing Older" in 1994, "The Price of Ignorance" in 1995, "Insulin for Life" in 1996 and "Global Awareness: Our Key to a Better Life" last year.

November 14 was chosen because it coincides with the birthday of Frederic Banting who, along with Charles Best, first conceived the idea which led to the discovery of insulin in October, 1921.

In 1996 a permanent logo was designed. The logo is central to creating a strong, global identity for the day. The logo combines balance and teamwork and is based on the well-known symbol of Yin and Yang. A careful balance of insulin medication, diet and exercise is essential in diabetes management, as is teamwork between health-care professionals, colleagues, friends and families.

The Diabetic Association of Bangladesh was formed on February 28, 1956 in Dhaka at the initiative of late National Professor M Ibrahim and a group of social workers, physicians and civil servants. The association started an out-patient clinic in 1957 in a small semi-permanent structure of about 380 square feet at Segun Bagicha, Dhaka. The clinic led to a diabetes

care and research complex at Shahbagh, which, after the demise of Prof Ibrahim in 1989, was renamed as the Ibrahim Memorial Diabetes Centre.

DAB is a non-profit voluntary socio-medical service organisation registered with the Ministry of Social Welfare under the Society's Registration Act, 1960. It is run by a 26-member National Council of which 18, including two from the delegates of the branches, are directly elected from amongst the bonafide members every two years at the Annual General Meeting of the association. These 18 members elect the office-bearers of the National Council, consisting of a president, three vice-presidents, a secretary-general, a joint secretary-general, a treasurer and a joint treasurer.

Efforts are being made for decentralisation of the diabetic out-patient services at the BIRDEM. Even the introduction of two shifts at the BIRDEM has proved inadequate to improve the conditions of the OPD, and unfortunately, nothing worthwhile can be done to increase the OPD space. Accordingly, steps have been taken this year to open a few more OPDs at various places in the capital. The Jurain Satellite Centre has been strengthened and new centres have been opened at

Dhanmodni, Uttara, Mirpur and Keraniganj. Opening of few more centres like the one in Khilgaon are also afoot. Local people are taking great interest in the development of the centres because, apart from avoiding the rush at the BIRDEM, the patients are getting services of DAB at their own doorstep.

As a result, the total number of beds at the BIRDEM Hospital has now been raised to 539 which has increased the dynamism in the activities of the hospital. The obstetric and neonatal units are now fully organised and functional. Plans for modernisation of the diagnostic services have also been implemented. Advanced chemistry analyzer, hematology counter, echocardiography and colour doppler etc have been added. Since NDN has also procured the same models, DAB is adequately equipped to provide high quality diagnostic services and is again leading the country in this respect.

A notable development has been made regarding the BIRDEM Cardiothoracic Project this year. The government has finally approved the project and physical construction is already under way.

The author, a consultant dentist at the BIRDEM, wrote this piece for World Diabetes Day (Nov 14)

Water Hides Fossilised 17th-century City

The city of Sizhou has languished under a Chinese lake for 300 years, offering only tantalising glimpses of itself during years of drought. Gemini News Service reports on proposals to excavate the drowned city. Gao Feng and Bao Jiannu Chenggencun, China

THE name of this place literally means "Village Close to the City Wall" — an enigmatic name for there appear to be no city walls nearby. But it indicates that both a historical disaster and archaeological wonder lie close at hand yet out of sight.

A few hundred metres from Chenggencun, 300km northwest of Shanghai, lies a city now absent from any modern map. It is the drowned city of Sizhou, preserved as a fossilised seventeenth century city, complete with walls, dikes and architectural gems like memorial archways, or "pailous". It no lies under the waters of Hongzhe Lake in Jiangsu Province.

It has been more than 300 years since Sizhou was inundated by a massive flood. But from time to time glimpses appear of its mighty walls and dikes which, for most of the time, stand drowned and silent. "I was ten when I first saw it," recalls Zhu, whose village is part of Xuji County on the south of Hongzhe Lake. "It was really dry that year, with the lake shore of Hongzhe retreating about five kilometres to reveal the Shaogong dike and Sizhou's city wall."

Zhu recalls the dike was so long that she and her friends failed to reach its end after walking along the dike for a whole afternoon. "And it was

very wide, enough for four or five of us to walk side by side," she says.

In living memory, Sizhou showed itself during six drought seasons since 1945. The 1963 drought was the most severe: the Huai River, the lake's main source, ran almost totally dry and the lake retreated day by day, attracting crowds to see the playback in history.

The lake was dried up and bowl-wide cracks opened up on the lake bed," recalls Yang Chengxi, now 80 years old. "The whole Ming Tombs area appeared and so did Sizhou's city wall, together with monuments, pailous and the foundation of some buildings."

Now there's talk about raising Sizhou above the water permanently, so it could be seen more frequently.

Some support a suggestion made by the Harvard Foundation in 1996 to build a miniature Sizhou in a giant tank in Chenggencun.

Others say walls could be built within the lake to block water off. Walkways could be positioned above or even under the water, providing aquarium-style vantage points from where visitors could see Sizhou for themselves.

But some archaeologists are against these ideas, and would prefer to let Sizhou rest in peace for the time being. "We must be very careful

with the excavation of Sizhou," said Professor Zou Houben, director of Department of Archeology at Nanjing Museum. "There are too many things for us to do before we start to excavate — the last thing we want is to damage this precious site due to impatience."

Sizhou's history stretches back a millennium before its catastrophic disappearance. From the Northern Zhou period (557-581 AD) through the Sui and Tang dynasties (581-618 and 618-907), it was built, attacked, and rebuilt because it guarded entry to the Bian River, which controlled the throat of Central China.

During the Song Dynasty (960-1279) and the Ming Dynasty 91368-1644), its size, position and beauty — and its role as a shipment station for imperial grain shipping in the Song Dynasty — gave Sizhou its heyday as a bustling river port.

This position was cemented when Zhu Yuanzhang, the local Anhui rebel who eventually became the founding Hongwu Emperor of the Ming Dynasty, sited his family's ancestral tombs to the north of Sizhou.

According to historians, it was these tombs that led to Sizhou's boom and doom.

Following a major course change in 1194, the Yellow River had taken the course of the lower reach of the Huai

River as its own estuary for more than 200 years, bringing sand and silt to Hongzhe Lake and elevating the lake bed until it was higher than the surrounding ground level.

Meanwhile, the Huai River had no other way to reach the sea but end up in the lake near Sizhou, aggravating the flood threat.

Throughout the Ming dynasty people of Sizhou therefore lived in constant fear of being drowned. Large-scale water defence works — walls, dikes and dams — were constructed to protect the city and imperial tombs nearby.

Chronicles of the late Ming record that flooding from 1592 to 1594 put the dikes and dams under severe stress, even breaching the defences. Proposals were put forward to divert the water of the Huai into the Yangtze River, giving the floodwaters an escape route.

But Pan Jixun, the government official in charge of shipping, opposed the suggestion. Floodwaters, he feared, might endanger the sanctity of the Ming Imperial Tombs nearby.

His replacement, Shao Dou, had a dike built around the city, and a stone and brick dam built to protect the Ming Tombs. But these defence measures, focused on blocking rather than diverting flood water, could not solve the problems.

Garfield



James Bond

