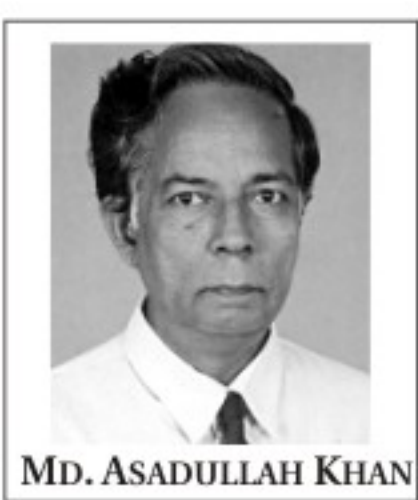


BITTER TRUTH

Tipaimukh Dam: Bane or boon?



MD. ASADULLAH KHAN

THE unilateral Indian move to construct a dam at Manipur to regulate flow of the river Barak and generate electricity, despite opposition from upstream state Manipur and downstream country Bangladesh, has been made without any discussion with the government of Bangladesh as required by international law on common rivers.

S. Dhanbir, Co-ordinator of North East Forum Dialogue, contended that the proponents of the Tipaimukh hydroelectric power project are yet to conduct a detailed and independent Environment Impact Assessment (EIA), which is required under the Environmental Protection Act, 1986 of India and its amendment in 1994, where data should encompass information collected over at least one year to assess the likely impact on the ecology, environment and wild life population at the site itself and both up and downstream.

In 2007, North Eastern Electric Power Corp. commissioned the Agricultural Finance Corporation of Mumbai to carry out an EIA of the Tipaimukh dam. The Environment section of the EIA noted in its report: "Average water availability at downstream for monsoon season at post-dam condition will decrease by 30% in comparison to pre-dam condition and thereby will provide relief to downstream populations from recurring flood havoc," validating concerns about reduced water flow.

Brac University vice-chancellor and water expert Professor Ainun Nishat has rightly observed that Tipaimukh dam could play a role for Bangladesh if it was a joint project and managed in line with Bangladesh's requirements. He commented: "We know neither their construction plan nor their management plan." He adds: "Without exchange of data regarding the impact of the dam on ecology, environment, fishery, wildlife, and most spectacularly on the life and living of the people living upstream and downstream of the dam, any assessment done by India will be incomplete and one-sided." Other experts have asked: "What will happen if the gates have to be opened when there is a big rise in water level in the reservoir?"

Bangladesh and India are now at loggerheads over the latter's proposed dam, caused mainly because of the lack of openness about the whole project. According to Prof. Asif Nazrul, an expert on international river law, Bangladesh as a lower riparian country has the right to be informed before any action relating to an international river is taken.

Dam construction in recent years has turned out to be a dirty business because the hazards that follow the construction outstrip the benefits. The World Commission on Dams analysed the environmental, economic and social impact of the world's 45,000 large dams, and the result unveiled by Nelson Mandela, Chairman of the Commission, in the later part of 2000 is quite bleak. Overall costs of dams, to both man and nature, are mostly negative. They are notorious for creating great environmental change. They force massive human resettlements, mostly of people who live where the lake is due to appear.

The World Bank estimated in 1994 that 300 large dams forced some four million people to leave their homes. The resettlement is often badly planned and executed. The report of the World Commission on Dams concludes that all too frequently "an unacceptable and unnecessary price has been paid to secure those benefits." Until now, millions of people worldwide have been forced out of their homes and settled elsewhere with paltry compensation and no means of earning a living.

The list of indictments is daunting. Ecosystems were destroyed or permanently damaged. Hydroelectric dams, once regarded as clean renewable energy source, turned out to be significant generators of greenhouse gases given off by decomposing vegetation in tropical reservoirs.

Many of the worst environmental effects of dams

stem from their supposed benefits. For instance, the constant and reliable irrigation hydroelectric dams can waterlog the ground. The water brings underground salt to the surface, which is left behind when the water evaporates. Eventually, the soil becomes too salty for crops to survive. Even the prevention of flood is a mixed blessing. The salt which was once carried downstream by a swollen river replenishing the soil and nutrients, no longer makes its journey to the sea. Instead it clogs up the reservoir.

The building of dams is often destructive. It usually means clearing of forests or other habitats in areas to be flooded. Water in reservoirs, especially in water storage dams, becomes silted with vegetation from upstream. As that rots it emits carbon dioxide and methane, contributing to greenhouse effect. Some estimates say that reservoirs could account for more than quarter of the "global warming potential" of gases in the atmosphere. There are other problems, too. Some large dams alter flood cycles and downstream flows, pollute rivers, remove nutrients and alter water temperature. All these can affect the survival of plants, fish and animals downstream. Blocked rivers disrupt the migration and breeding of fish, causing extinction of some species. In recent years, assessment about dam building indicates that Aswan dam and Aswan high dam, commonly held up as examples of planning, now shows negative results. The arable land downstream is being eroded away partly because it is not getting enough silt. We can also see the adverse effect of Farakka Barrage on agriculture and fishery in the northern Bangladesh.

Dams are often touted to be protection from floods, but this often turns out to be one of their most

troubling drawbacks. Traditionally, land near a river has been irrigated by floods and planted as they recede. A dam can stop this from happening and rob millions of people downstream of their livelihood. The belief that the dam's irrigation of other land will make up the loss is not true. A study on the Kainji dam on the Niger showed that the dam reduced rice production downstream by 18% and fish catch by 60-70%.

But the thorniest problem is the uprooting and resettlement of people. Those most likely to be evicted by a dam are least good at adapting to new conditions. They often have to change their way of life. The World Bank itself reckons that only in a handful of cases, starting from Kaptai in Bangladesh to China and even the US, residents displaced by a dam ended up better off.

Experts fear that the Tipaimukh dam will choke up the Surma and Kushiyara rivers during the dry season and have a similar effect on a vast area of Bangladesh as that of the Farakka Barrage. Evidently, obstruction to the natural flow of Surma and Kushiyara will seriously hamper hydrology, and agriculture in at least seven adjoining districts that produce bulk of the country's rice crop.

Dams for all their material blessings are responsible for some of the worst environmental tragedies. The problems in the lower riparian countries will mount when a country building the dam in the upstream diverts or releases water to suit its needs without taking into consideration the impact on environment, agriculture, living, wildlife, fisheries and forest resources downstream.

Other than the ecological damage, the social penalties that dams impose are nowadays better understood. Dam builders, financiers, conservationists, and anti-dam protesters who met in Switzerland, agreed as early as 1997 that if an international commission were created to set standards, if everybody affected by a dam were in the planning process, if the option of building dam were weighed against all alternatives, if all the costs were accounted for and if everyone benefited from the dam, then it could go ahead.

The writer is a columnist of The Daily Star. E-mail: aukhandk@gmail.com

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Realising Digital Nation and eAsia2011

LUTFOR RAHMAN

"REALISING Digital Nation" is the slogan of eAsia2011, an international event on Information and Communication Technology (ICT) for Development being held in Bangladesh (Dec 1 to 3). As announced by the organisers of the event, the main objective of eAsia2011 is to reinforce technology and knowledge-centric growth and the needs of Asia, including Bangladesh, through capitalisation of market economy and boosting of human development. The event will also commemorate the 40th anniversary of independent Bangladesh and celebrate the progress of Digital Bangladesh agenda of the government.

There is a lot of scope to comment on the issue. The organisers are expecting more than 1,000 registered delegates from all over the world. There are arrangements for exhibitions for various types of organisations and institutions, and also scope for showcasing of government initiatives. It is no doubt an interesting and positive initiative. Though, the event is being held for the first time in Bangladesh, similar events have been taking place since 1990 in other countries of Asia.

Digital Bangladesh envisages mainstreaming ICT as a tool to eradicate poverty, establish good governance, ensure social equity through quality education, healthcare and law enforcement for all, and to prepare the citizens for climate change. According to a statement of the authority concerned, this is the first time in the history of Bangladesh that the vision of poverty reduction and human development by utilising ICT was backed by strong political will from the very top and enthusiastic support from common citizens at the bottom.

Who will benefit from this event? What is there to learn?

The whole nation can benefit from the event if we take it in the positive way. Realising Digital Nation might mean a digitally empowered nation, but more accurately speaking it means a nation equipped with proper tools, technology and knowledge for all-pervasive development,

including fulfillment of the desire for freedom from corruption.

There is a lot to learn from this event. Two events were held in Malaysia; eAsia 2007 and eAsia 2008; eAsia 2009 was held in Sri Lanka; and eAsia 2010 was held in India. Similar events were held in Asian countries under different names, such as Map Asia in Beijing, in 2004. E-India is held every year in different cities of India. African countries organise eLearning Africa every year in different cities. The 7th ICT event, eLearning Africa, is going to be held in Cotonou, Benin from May 23-25, 2012.

All African countries are not at the same level in respect of science and technology development. Countries like South Africa, Kenya and Ghana are in better position. There are countries in Africa with mineral resources of billions of dollars but their technological and human resource development is poor. As such,

they cannot enjoy benefits of their God-gifted natural and mineral resources. Events like eLearning Africa help them improve their social, technical and financial conditions through utilisation of resources.

Recently, the government of Uganda has adopted a strategy of inviting world famous scientists, technologists and

researchers to pick up the best ideas from them and implement them with the help of their young generation. The head of the government has made science education compulsory for all up to Class 12. He has realised that it is the Ugandans themselves who can develop the country scientifically and technologically to improve social conditions, something that is not possible for anybody from a foreign country.

From my personal experience of participation in many of the events as an invited speaker, I will say that eAsia2011 is a unique platform and opportunity for us to get recognition as digital nation.

The writer is Chairman, Computer Science and Engineering Department, Stamford University Bangladesh. E-mail: lutfor@agni.com

Protest and protect, or perish

SHEGUFTA YASMIN

CLIMATE change is a global challenge which affects all nations, some more than others. Bangladesh is one of the most vulnerable countries of the world to climate change. It is a threat to social and economic stability and sustainable human existence. There is no doubt that climate change affects the fundamental requirements for health -- clean air, safe drinking water, sufficient food and secured shelter.

The northern part of Bangladesh is gradually turning into a desert because of continued drought. At the same time, the southern part is being destroyed by cyclones and high tidal wave, and is in danger of sinking into the saline water of the sea. The six seasons of Bangladesh have turned into three seasons -- summer, rainy and winter. Both the heat and the cold are unbearable.

Bangladesh is one of the most pro-active developing countries on the global scene when it comes to addressing the challenges of climate change. The Ministry of Health and Family Welfare and ASA University jointly arranged a Global Dialogue on Health and Climate Change on November 29, where Mr. Steen Gade, Member of Danish Parliament and Chairman, Standing Committee on Environmental Affairs of Danish Parliament, mentioned the critical situation of Bangladesh due to global warming and Denmark's plan to help Bangladesh. He said in the conference that "energy for all" initiative was important for Bangladesh. He appreciated Bangladesh's implementation of solar energy and other forms of renewable energy.

We cannot afford to delay further action to tackle climate change if the long-term target of limiting the global average temperature increase to 2 degrees Celsius is to be achieved at reasonable cost. New scenarios are predicting that the world is on a trajectory that will result in a level of emissions consistent with a long-term average temperature increase of more than 3.5 degrees Celsius.

In the past 100 years, the global average temperature has risen by about 0.74 degrees Celsius. The rate of change accelerated over the course of the 20th century. Projections in temperature rise for the 21st century range from 2 to 4 degrees Celsius. It is very likely that this temperature rise is mainly caused by the emission of what are known as greenhouse gases such as carbon dioxide and methane. They are increasing, mainly due to the burning of fossil fuels -- coal, gas and oil -- deforestation, and changes in land use.

Today, the concentration of CO2 is 380 ppm. This is a very sharp increase from the pre-industrial level value of about 280 ppm. It also exceeds, by far, the natural range over the past 650,000 years (180 to 300 ppm). In 2009, the summer (minimum) ice cover of the Arctic was 24% below the 1979-2000

average. It was even less in 2007 and 2008. Scientists expect the melting to continue in the coming decades. The 14 hottest years on record have all been in the last 15 years.

On average, glaciers have thinned by over 10 meters of ice since 1980. Climate change is increasing the risk of extreme weather events, such as more intense hurricanes, cyclones and typhoons, heavier rain and snowfall, more frequent and intense heat waves, and longer droughts, leading to more disasters. In addition, there will be increasing health risks: diseases and epidemics may spread to new areas. The number of climate-related and natural disasters in 2008 was 486, of which 269 were climate related (source IFRC-DMIS). 243,000,000 people are affected every year by climate-related disasters.

The UN has declared 2012 as the International Year of Sustainable Energy for all. The goal of this initiative is to meet three objectives by 2030: Ensuring universal access to modern energy services; doubling the rate of improvement in energy efficiency and doubling the share of renewable energy in the global energy mix.

We don't want any "politics of climate change," we simply want to live a healthy life. To get that environment, if we need to protest boldly against those who are responsible for this situation, we will do so or else we cannot protect ourselves. It's our headache, so we have to save ourselves or perish.

Climate adaptive health strategies should consider immediate cost-effectiveness and longer-term protection by "climate-proofing" settlements, institutions and societies. Strong commitment from industrialised countries is essential to tackle the global and local climate issues.

Let us not forget either that climate change adaptation cannot be seen in isolation from many other development challenges. In order to adapt effectively to climate changes, we also need to deal with issues such as population growth, education, land issues, rapid urbanisation, pollution, deforestation etc. The better we are at tackling these challenges, the better we will be at coping with climate changes.

The ongoing climate change and the increasing frequency and ferocity of natural disasters are threatening our food and water security, and causing outbreaks of diarrhea, cholera and other water-borne diseases.

We have to be more active participants worldwide on climate change and health related issues. We expect our development partners to come forward with technology and finance to enhance our coping capacity.

We want a fruitful negotiation at the United Nations Framework Convention on Climate Change (UNFCCC) led summits. We are eagerly looking forward for COP17 in Durban.

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The writer is Senior Lecturer, Department of English, ASA University Bangladesh.