



Threats and bullies

We know the nations who have the highest per capita energy consumption are the most developed ones. But since those most developed nations emit greenhouse gases the most, causing global warming, they become the culprits as well.

ENGR. M. INAMUL HAQUE

BANGLADESH being located at the confluence of the rivers Ganga, Meghna and Brahmaputra, most of its people live on the banks of those rivers and their branches, and draw living from water based economy. Their life is supported by an ecosystem balanced and nourished by periodical water flows

between the flood embankments of rivers which are subject to those threats. This is about 10% of the total land and home to 5% of the population in Bangladesh.

The major islands of Bangladesh named Sandwip, Hatia and Bhola are constituted from the silt deposits of big rivers. Here people have similar types of vegetations with the mainland, where lands are pro-



Threat of submersion in Bangladesh due to sea level rise.

in the rivers, and they are used to their floods and low flows. The rural life has some variations depending on places where people live. The char (islands of rivers) life is of uncertainty where threat of displacement by river erosion looms during half of the year. There floods occur on a regular basis though it is not that much threat anyway. It is estimated that about 1,500,000 hectares of land lie

ected from salinity by embankments. Their sweet water source is rainwater collected and preserved in dug up ponds. Submersion of the coastland by tidal surge is often experienced during sea-borne tropical cyclones passing over the country. As the coastal areas of Bangladesh have gradually risen from the sea, any tidal surge submerges vast low areas near to the sea. Now the sea level is rising

due to global warming. It is estimated that one meter rise shall submerge one fifth of the country creating climate refugee of about 20 million people.

Global warming

Global warming is changing the world climate, by melting ice of the poles and glaciers of the mountains. It is caused mainly by the consumption of the fossil fuel and emission of greenhouse gases by the developed countries, which leads to increased concentration of carbon dioxide (CO₂) in the atmosphere. The Intergovernmental Panel on Climate Change (IPCC) estimated in 2007 that, the atmospheric concentration of CO₂ was 0.038% in 2005, compared to 0.028% pre-industrial level. Bangladesh faces an increasing threat of submersion from sea level rise, and drought, flood, etc. because of global warming.

Global warming leads to 1) depletion of the Ozone Layer, and causes 2) Greenhouse Effect in the atmosphere. The ozone layer is a high concentration of ozone molecules at a height from 30 to 50 kilometers (stratosphere) above. The main function of the ozone layer is absorption of the Sun's ultraviolet radiation (wavelengths 270315 nm), thus protecting the Earth (including humans, animals, and plants) from its harmful influence. Air pollution caused chiefly from chlorofluorocarbons (CFCs) is the reason for ozone depletion in the stratosphere.

Increase of greenhouse gases (CO₂, CFCs, methane, nitrous oxide, etc.) in the atmosphere traps heat and restricts earth's net radiation through the tropopause away. This is called the Greenhouse Effect. By this effect, global heat is increasing and ice caps in the poles and glaciers over the mountains are melting, contributing to the sea level rise. According to the IPCC estimates, sea level could rise from 9 to 48 cm by 2080 in a 'Low

Emissions Scenario', and from 16 to 69 cm in a 'High Emissions Scenario'.

Climate change due to global warming is posing a grave threat to the people of the world, particularly to the people living on plains near to the sea level. We know the nations who have the highest per capita energy consumption are the most developed ones. But since those most developed nations emit greenhouse gases the most, causing global warming, they become the culprits as well. Those nations, e.g., Australia, Canada, USA and EU have the highest carbon footprint, a measure of the human activities that have impact on the environment, in terms of the amount of greenhouse gases produced in units of carbon dioxide (tons/capita/year).

These nations are pushing countries like Bangladesh to adapt to their misdeeds by offering funds for raising embankments, construction of flood and cyclone shelters etc. This is an unfair policy to address the problem. These measures shall increase Bangladesh's foreign debts, but keep the affected people in polder confinements (climate ghettos), under sub-human conditions. Those nations are now promising in the Copenhagen conference to cut down emission to the tune of 5-15% by 2020. This amount shall have little effect on the present trend of sea level rise.

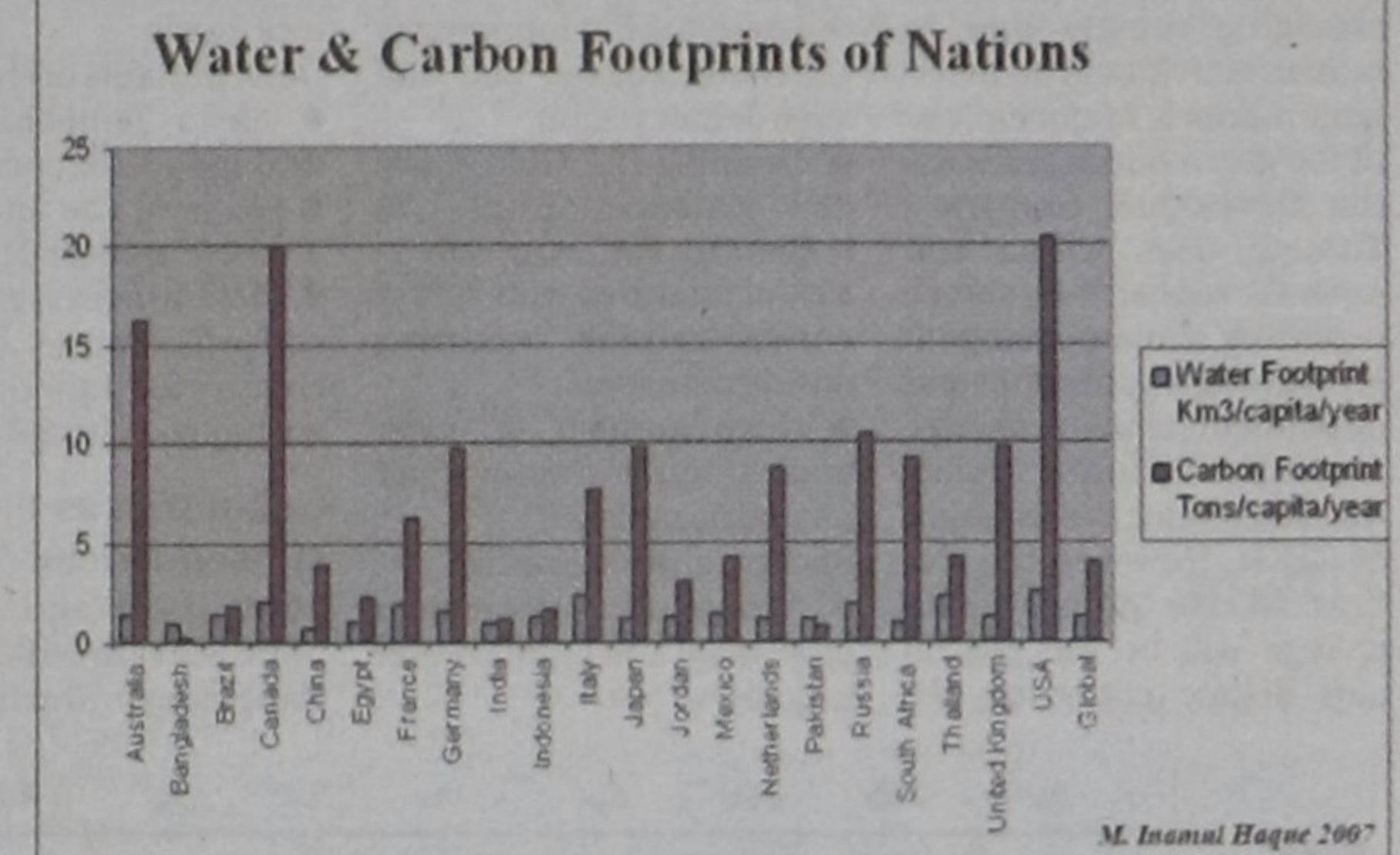
Right to migration

The Himalayan Range and the Lushai Hills are subject to erosion and source of sediments in the Bengal Basin, supplied through rivers. The Bengal Basin has been receiving sediments of the Ganga, Brahmaputra, and Meghna river systems since the Miocene (24-5 million years past) age. This could overcome the advance of seafront because of coastal land subsidence 3mm/year. But now, the threat of sea level rise is an overwhelming prob-

lem. Any adaptation to it would be automatic when human life changes with the nature. If sea level rise is really a threat, then would be affected people from our coastland should be allowed to migrate to the vast

unpopulated lands of the culprit nations.

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Data Source: Hoekstra & Chapagain 2007, Carbon Footprint Ltd. 2007

From Kyoto to Copenhagen

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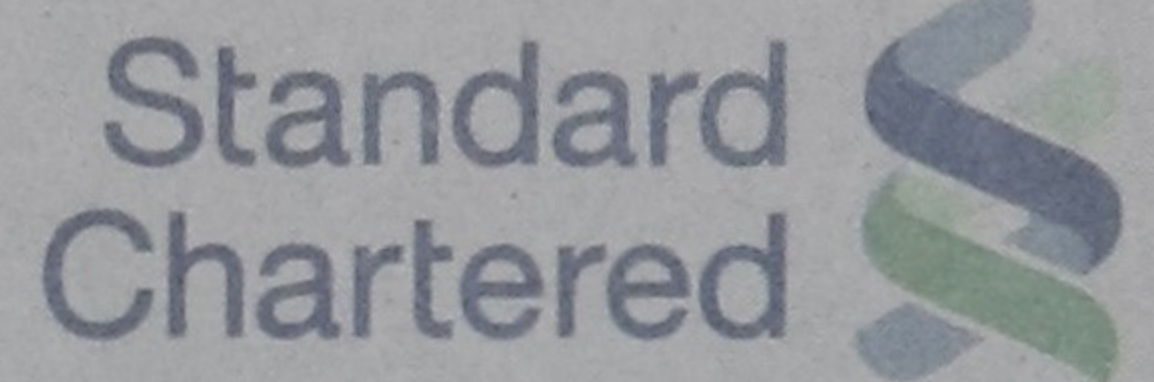
industrialized countries in absolute values, define national emissions reduction strategies for developing countries, draw up a global approach to the fight against deforestation, define action plans for adapting to climate change, and draw up an international financing mechanism for all these actions. But it has to be "emitters must pay" for its success.

Since 1997 we are witnessing conferences and meetings on climate change, but no effective measures have yet been taken to address climate change impacts. First, commitments made by industrialized countries for reduction of CO₂ should be verifiable under the umbrella of the United Nations and secondly, they should ensure helping developing countries with technologies and financial assistance to reduce carbon emissions and adopt environmentally friendly projects. It is impera-

tive to address poverty problem that many countries in Asia and Africa, are facing which may travel without passports in many unpleasant forms as stated in Human Development Report of UNDP of 1993. Therefore, there is a need for concerted efforts against poverty.

In the interest of the security of rich countries they should invest in the development of the developing countries to reduce level of poverty. However, the timing of the conference is not suitable when the countries are in economic recession. It would be rather difficult to have financial commitments from industrialist countries. Still we wish success of the Copenhagen conference.

Mohammad Amjad Hossain, a retired Bangladesh diplomat and past president of Nova Toastmasters International Club, writes from Virginia.



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