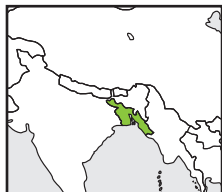


Unsustainability increases vulnerability



Although it discharges a minimal quantity of carbon emissions into the atmosphere, few other countries are more severely affected by climate change. Government efforts to approach sustainability have been insufficient. Environmental issues such as overpopulation and deteriorating living conditions in the principal cities are not being addressed. Climate migrants are disrupting an already untenable economy, which makes the country one of the most vulnerable to food shortages and natural catastrophes.

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Nineteen years after the 1992 Rio Declaration on Environment and Development it is time to revisit its principles. Its second proposition reads: "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." The impact of climate change on Bangladesh is clear; since it is ultimately caused by developed nations' misuse of natural resources, it is up to them to provide compensation.

Proposition 8 states that "to achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies." However, developed country lifestyles are heavily based on fossil fuels, and thus clearly an "unsustainable pattern of production." Not only are hydrocarbon resources limited, they are also one of the main causes of environmental degradation and climate change. Policy makers in developed countries have failed to limit emissions and also to propose viable alternative patterns of production and ways of life that support equal environmental rights for all global citizens.

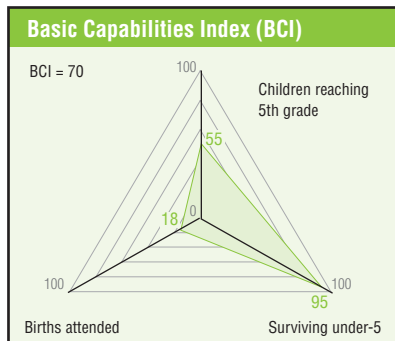
An unsustainable economy

The country has achieved many development goals in recent years. For example:

- Per capita income has increased, reaching USD 780 in 2011.¹
- Primary school enrolment has expanded in recent decades to around 90%.²

1 Priyo, *Per-capita income rises to \$780 as GDP growth defies recession*, (1 July 2011), <www.priyo.com/story/2011/jan/07/17004-capita-income-rises-780-gdp-growth-defies-recession-pm>.

2 Trading Economics, *Total enrollment, primary (% net) in Bangladesh*, (2011), <www.tradingeconomics.com/bangladesh/total-enrollment-primary-percent-net-wb-data.html>; Trading Economics, *School enrollment, primary, female (% gross) in Bangladesh*, (2011), <www.tradingeconomics.com/bangladesh/school-enrollment-primary-female-percent-gross-wb-data.html>.



- Infant mortality rate has been reduced from 71.66 in 2000 to 50.73 in 2011.³
- Life expectancy has climbed from 50 years to over 65 in the last two decades.⁴
- Exports more than tripled between 1998 and 2010, rising from USD 5.1 billion to USD 16.24.⁵

That said, the caretaker Government of Fakhruddin Ahmed (2007-09) pursued a non-sustainable model that failed to improve food security. For example, its food adulteration measures led many food importers and food merchants to cease importing and distributing food.⁶ In addition, the Government made the paramilitary force, Border Guard Bangladesh (then Bangladesh Rifles), the sole distributor of subsidized food among the poor, despite its long history of corruption (especially smuggling) and lack of experience in the field.

After subsidies provided for pesticides and fertilizers made them widely available, overuse not only diminished soil fertility but also has posed a threat to human health.⁷ The Government's policy is clearly non-sustainable, since it violates the dictates of long-term planning and ignores the well-known link between

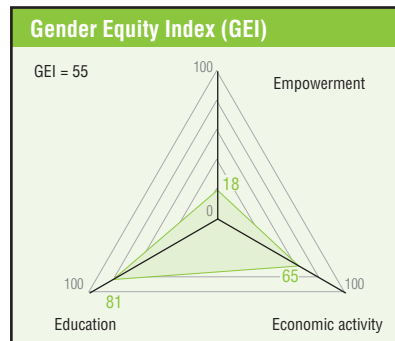
3 Index Mundi, *Demographics: Infant mortality rate Bangladesh*, (2011), <www.indexmundi.com/g/g.aspx?c=bg&v=29>.

4 Trading Economics, *Life expectancy at birth; total (years) in Bangladesh*, (2011), <www.indexmundi.com/g/g.aspx?c=bg&v=29>.

5 Ibid.

6 Anonymous, "The impending food crisis in Bangladesh," in D. Hulme, *Food insecurity in Bangladesh: the other crisis*, (University of Manchester, Ending world poverty, 2007), <povertyblog.wordpress.com/2007/11/22/food-insecurity-in-bangladesh-the-other-crisis>.

7 Ibid.



fertilizers and soil depletion and erosion. This misguided approach is particularly egregious in a country as vulnerable to natural disasters and climate change as Bangladesh. If they are not changed in the next few years, these policies will make the already poor living conditions of the Bangladeshi people even worse.

Environmental threats

Overpopulation is the main cause of environmental degradation⁸ and resource depletion.⁹ Threats include deforestation and soil erosion; a paucity of potable water, mostly due to the size of the population, inadequate purification, and the spread of untreated contaminants.¹⁰

Even Dhaka, the capital, does not have an uninterrupted water supply. In some municipalities, water is only available two to four hours a day; major shortages are common during the dry season, between January and March.¹¹ In 1993 researchers discovered that the country's groundwater (the source of drinking water for 97% of the rural population) was naturally contaminated with arsenic; despite Government efforts, even in 2008, up to 70 million people still drank water that exceeded permitted levels.¹² Surface

8 Encyclopedia of the nations, *Bangladesh – Environment*, (2011), <www.nationsencyclopedia.com/Asia-and-Oceania/Bangladesh-ENVIRONMENT.html>.

9 DiscoveryBangladesh, *Bangladesh: Environmental Issues*, (2011), <www.discoverybangladesh.com/meetbangladesh/env_issue.html?id=13>.

10 Encyclopedia of the nations, *Bangladesh – Environment*, (2011), <www.nationsencyclopedia.com/Asia-and-Oceania/Bangladesh-ENVIRONMENT.html>.

11 Wikipedia, *Water supply and sanitation in Bangladesh*, (2011), <en.wikipedia.org/wiki/Water_supply_and_sanitation_in_Bangladesh>.

12 Ibid.

waste water is often polluted by human excreta, as well as urban and industrial waste. The sewerage system remains inadequate; the country has only one treatment plant.

An urban inferno

Rural to urban migration is one of the country's biggest concerns; each year, 500,000 more people arrive in Dhaka. The city lacks the infrastructure to accommodate its current residents, almost 45% of whom live in informal settlements and neighbourhoods with substandard living conditions.¹³ The major causes of this migration include natural catastrophes such as droughts, floods, cyclones; the loss of farm land due to river erosion; and the absence of a viable job market in rural areas.¹⁴ Few migrants find better living conditions in the cities: the average family income in urban areas is roughly USD 1 a day.¹⁵

This untenable situation is rooted in the historical absence of long-term planning and sustainable development efforts. Governments over the last two decades neglected agricultural production and introduced few measures to plan or regulate urban growth. Moreover, they encouraged centralization, neglected rural development and failed to increase opportunities in cities other than the capital. As a result, the geographical imbalance in income has been accentuated: Dhaka controls about 70% of the country's money supply and attracts almost 60% of total investment.¹⁶ The present Government has introduced some measures to boost agricultural production, but has not yet addressed urgent urbanization issues. Dhaka is becoming an urban inferno. Air pollution mostly from buses and trucks, is increasing. Crowds of people walk the streets in a human sea. Crime and violence are escalating.

Recommendations

It is imperative to address the rights of climate migrants spelled out in the United Nations Framework Convention for Climate Change (UNFCCC). A new UN body should be formed to manage their rehabilitation. The 13th point of the Rio Declaration spells out the obligation to provide compensation for damage due to pollution and environmental damages; the new body can act as a coordinator to manage the compensation fund.

If we believe that every citizen of the world has a right to food, a new global food order must be devised to replace the current market-based global food order, which is actually increasing hunger. For example, an international court of justice on food rights should be established to rein in the monopolistic behavior of the market and political manipulation. This would be one way to help the developing and least developed countries achieve sustainable development at the global as well as the local level.

Developed countries are historically responsible for climate damages; this is particularly apparent in Bangladesh's case, as it is responsible for a minuscule

CLIMATE CHANGE: WHOSE BILL IS THIS?

Bangladesh is responsible for less than one fifth of 1 percent of the world's total greenhouse gas emissions.¹ However, according to the Intergovernmental Panel on Climate Change (IPCC), it is also one of the countries most vulnerable to its deleterious effects.² In the coming decades these are predicted to include extreme weather (e.g., tropical cyclones), increased precipitation, sedimentation and average temperature; overflowing rivers; coastal erosion; melting of the Himalayan ice cap; and rising sea levels. Bangladesh would be threatened by every one of these disasters.

UNDP reports Bangladesh is already the country that is most subject to tropical cyclones. The cyclone Aila, for example, which hit the country on 25 May 2009 displaced more than 400,000 people.³ It washed away a vast amount of land, particularly from islands near the coastline. According to the European Commission's Humanitarian Aid Office (ECHO), about 40,000 people were forced to migrate from the Khulna district, 30,000 from Paikgacha, 18,000 from Dacope and 12,000 from Batiaghata apazila. Some people from the coastal areas migrated to neighbouring countries, such as India.⁴

Climate change will reduce agricultural production and lead to a shortage of safe drinking water, thus challenging the country's ability to increase economic growth and eradicate poverty.⁵ In the worst case scenario the rise in sea levels will displace millions of people, unless existing coastal polders are strengthened and new ones built. It is essential for the Government to prepare for these challenges and engage in long-term thinking and planning.⁶

1 M.A.Hossain, "Bangladesh: more poverty, vulnerability and food insecurity," *Social Watch Report 2010*, (Montevideo: 2010), p.66.

2 M.L.Parry et al. (eds), *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (New York: Cambridge University Press, 2007), <www.ipcc.ch/publications_and_data/ar4/wg2/en/contents.html>.

3 See: <wopedia.mobi/en/Cyclone_Aila>

4 P. Gain, "Aila, Shrimp and failed mud walls," *The Daily Star* 3, no. 1 (January 2010), <www.thedailystar.net/forum/2010/January/aila.htm>.

5 Hossain, op cit.

6 Ibid.

part of global carbon emissions, yet suffers far more damage from climate change than countries that make a much greater contribution to the greenhouse effect. As Principle 9 of the Rio Declaration makes clear, developed countries have an obligation to mitigate the negative impact of climate change by developing sustainable and environment-friendly technologies and transferring them to developing and least developed countries.

Climate change funds

The government of Bangladesh established two funding entities to support implementation of Bangladesh Climate Change Strategy and Action Plan (BCCSAP 2009) that is focused on medium and long-term actions. The two funding entities are the Bangladesh Climate Change Resilience Fund (BCCRF) and the Bangladesh Climate Change Trust Fund.

The BCCRF is resourced with the contributions from four main donors: the UK (with a contribution of USD 94.6 million); Denmark (USD1.8 million); Sweden (USD13.6 million) and the EU (USD11.7 million). Switzerland has subsequently contributed USD 3.8 million. The governance arrangements of the BCCRF were finalized in an Implementation Manual following an open and intense debate and discussion between the Government and Development Partners. The government of Bangladesh wanted its major role in fund management, while the development partners wanted the World Bank to manage the fund. The World Bank receives 4.5 per cent of the fund towards a service charge. The major decision on fund mana-

gement of BCCRF lies with the Governing Council and the Management Committee, which are represented by the government of Bangladesh in majority.

On the other hand, the Bangladesh Climate Change Trust Fund is a 'block budgetary allocation' of USD 100 million each year for three years (2009-2012, totaling up to USD 300 million), in the form of an endowment. The governance mechanism of the Trust Fund is totally different from that of the BCCRF.

Financing climate change is very challenging for a country like Bangladesh, which has such a low economic base. The funding the Government has allocated to the BCCRF has come out of investment in other important sectors, such as health, sanitation, education and poverty.

In conclusion

From severe flooding to a rapidly melting Himalayan ice cap, the threats Bangladesh faces from climate change are dire and imminent. Mitigating them and promoting sustainable development will require decisive Government action informed by a long-term plan. While these efforts will be costly, particularly for such a poor country, developed countries, which have been primarily responsible for climate change, have an obligation—expressed in the 1992 Rio Declaration—to assist countries such as Bangladesh in coping with its effects. The Government's formulation of a credible long-term sustainable development plan should make it more difficult for developed countries to continue to ignore this obligation. ■

13 A.Khan, "Migration to Dhaka," *The Daily Star*, (September 26, 2009), <www.thedailystar.net/newDesign/news-details.php?nid=106930>.

14 Ibid.

15 Ibid.

16 Ibid.