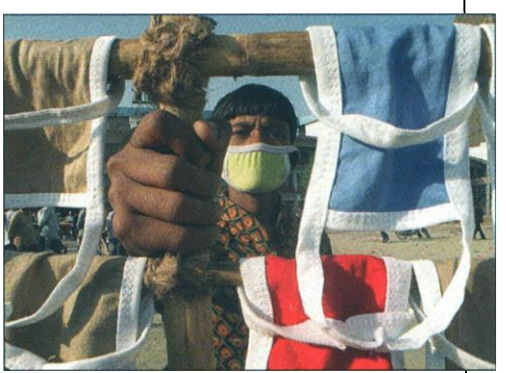
Climate Change and Bangladesh

Bangladesh is one of the countries most likely to suffer adverse impacts from anthropogenic climate change. Threats include sea level rise (approximately a fifth of the country consists of low-lying coastal zones within 1 meter of the high water mark), droughts, floods, and cyclones (approximately 130,000 people were killed in the cyclone of April 1990). With a population of 130 million, most of whom earn less than U.S.$1 a day, it has some of the poorest people in the world. The impacts of climate change will only exacerbate the problems already facing the population.

Although Bangladesh emits less than 0.1% of global greenhouse gas emissions (compared to 24% for the United States), it is nevertheless taking steps to reduce its future emissions through the development of renewable energy and the use of (relatively clean) natural gas. Because Bangladesh has only been able to supply electricity to less than a quarter of its rural population, this means that most of the future energy infrastructure can be developed using relatively clean energy (including solar photovoltaics). Nevertheless, the country needs to develop a concerted plan of action to face the problems of climate change and the development challenges they will present. This will require a well-coordinated policy for scientific research and development, focusing particularly on building adaptive capacity. In particular, such capacity needs to be developed in the fields of disaster management, agriculture, water resource management, and coastal zone management. For example, Bangladesh and the Netherlands are both low-lying deltaic countries, but the Netherlands has the financial, scientific, and technological capacity to build higher sea walls, whereas Bangladesh does not. The elements of the strategy specific to climate change also need to be incorporated into national and sectoral planning to ensure that they are compatible with national sustainable development objectives.



Severe pollution from vehicles in Dhaka, Bangladesh, forces residents to use homemade protective devices.

The most important step will be for the government of Bangladesh to appreciate the importance of climate change as a development issue in the short and medium term—not just an environmental issue for the long term—and to develop appropriate scientific and strategic planning initiatives keeping this in view. Some of the problems will also be needed to be tackled on a regional scale (for example, the watershed problems of the Ganges and Brahmaputra Rivers, which flow through Nepal and India before they reach Bangladesh), which will require cooperation across countries in the region.

Bangladesh has been able to develop some skills and capabilities in its scientific community to address the problems of assessing vulnerability to climate change and developing appropriate strategic responses. Bangladeshi scientists have played important roles as lead authors of the Intergovernmental Panel on Climate Change. For example, the Bangladesh Centre for Advanced Studies has been a pioneer in preparing assessments of vulnerability to climate change, and the Bangladesh University of Engineering and Technology has been analyzing greenhouse gas emissions from different sectors and devising policies and measures to reduce emissions in the future. However, Bangladesh has very few financial resources of its own to support the required scientific research. For example, almost the entire budget for the universities and research institutes is spent on salaries and running costs, leaving little if any research work to be supported by international donors.

Together with other severely threatened nations (such as the least developed countries), Bangladesh needs to play a still more important role in international negotiations on climate change. The cause of the problem is being addressed in the international negotiations around the United Nations Framework Convention on Climate Change, but Bangladesh has been able to participate only nominally so far. The countries, such as Bangladesh, that stand to be most adversely affected by the continued emissions of greenhouse gases have an especially powerful interest in global actions to mitigate them. The world community has an obligation to pay serious attention to their views on the establishment of developing-country emissions targets, which should be based on an equitable share of the global atmosphere (including, for example, a per-capita right to emissions).

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