

GLOBAL WARMING

Contemplating mitigation measures

Target for energy-efficiency and energy supply improvement should be fixed. The desired reduction will require switching to fuels that emit less carbon dioxide; reviewing strategies for renewable energy sources; and reviewing nuclear power option.

MD. ATIKUR RAHMAN

ALL things that make up the environment are interrelated. The way in which people, animals and plants are related to each other and to their surrounding is known as ecology. The ecosystem is a complex web that links animals, plants and every other life form in the biosphere. By altering any one part of the web you can affect all other parts. For example, the destruction of forests may have serious ecological consequences for humans and animals.

It is our responsibility to prevent the environment from being spoilt. To make life healthy and comfortable we should keep the environment clean and danger free.

But often people spoil the environment by doing unwise things and as a result, endanger their own lives. In recent years, many alarming reports provide strong evidence that world temperatures are increasing day by day. This increase in global warming is caused by increased amounts of carbon dioxide around the earth.

This is exemplified by the destruction and burning down of tropical rain forests, by traffic that clogs up city streets, by the rapid growth of

industry, the use of chlorofluorocarbons (CFCs) in packaging and manufacturing, the use of detergents and so on. The oceans are also said to be affected both human waste and because of pollution caused by industrial waste products, oil seeping from damaged supertankers and from other maritime disasters. However, the main culprit for global warming is carbon dioxide gas, produced by the burning of fossil fuels and forests and pollutants such as methane and chlorofluorocarbons.

Climatologists predict that by midway through the next century temperatures may have risen by as much as 40C. This could catastrophically reduce mankind's ability to grow food, destroy or severely damage wildlife and wilderness, raise sea levels and thereby flood coastal areas and farmland, the lower southern part of Bangladesh included.

If the world is going to prevent dangerous human interference with the climate system, we must agree to limit emissions so as to respect ecological limits. In order to avoid the most dangerous impacts of climate change, the latest science tells us that carbon emissions in industrialized countries will need to drop by at least 90 percent by 2050.

The United Nations aims to get

countries to reduce their emissions of climate changing gases via the Kyoto Protocol. But the target for CO2 reduction is currently set at only 5.2 per cent below 1990 levels by 2012 for the industrialised countries. Countries have still not achieved consensus on a way to move forward past 2012.

From another perspective, while the use of fuel increases to keep up with modern demands, the world is becoming more vulnerable to environmental hazards and disasters. At present, oil provides above 40 to 43 percent of all energy used by the world. Oil and coal each account for 40 percent of global warming emissions from fossil fuels worldwide. In the United States, energy use accounts for 82 percent of our global warming emissions, with oil counting for 42 percent of those emissions. Countries in the tropics and the small island states are likely bear the brunt of the consequences.

Developing country economies are harmed when they are dependent on volatile oil imports. And when the oil is finally burned, and the carbon contained in it released into the atmosphere, it contributes heavily to decreased agricultural production, increased droughts, human health impacts, environmentally related refugees and other already observed and predicted impacts of climate change.

One of the most effective solutions to these environmental hazards is to raise the price of fuel. The use of petroleum releases toxic chemicals into our atmosphere. These chemicals escape into the air during refilling, from the gasoline tank and carburetor during normal operation, and from engine exhaust. Transportation sources account for about 30-50% of all harmful emissions into the atmosphere.

Raising the price of fuel would mean that people would use less petroleum. They would find other alternative means of transport to save money, which would mean using less high priced fuel for everyday purposes. For example, cycling is a healthy activity and it saves the earth too. Also for a long journey, people could try to find friends together for car-pooling. Car-

pooling saves a lot of fuel and would save a lot of money too.

Many environmental hazards like "smog" are increasing around the world due to excessive use of petroleum in our daily lives. Raising the price of the fuel may make all the difference to the environment. It would force people to use petrol in more responsible way and use it less, and thereby provide one of the most effective solutions to the problem of ever-increasing environmental hazards.

We feel the government and its specialised agencies, non-governmental organisations, industries, educational institutions and individuals should act immediately to counter the on-going degradation of the atmosphere.

Target for energy-efficiency and energy supply improvement should be fixed. The desired reduction in carbon dioxide emissions will also require switching to fuels that emit less carbon dioxide; reviewing strategies for the implementation of renewable energy, especially advanced biomass conversion technologies; and reviewing nuclear power. If safety, radioactive waste and unclear weapons proliferation problems can be solved, unclear power could play a role in lowering emissions of carbon dioxide.

There must be vigorous application of existing technologies to reduce emissions of acidifying substances, other substances that are precursors of troposphere ozone, and greenhouse gases other than carbon dioxide.

Products should be labeled to allow consumers judge the extent and nature of atmospheric contamination arising from the manufacture and use of the product.

Resources for research and monitoring efforts within the world climate programme, the international ecosphere-biosphere programme, and the human response to global change programme should be increased. It is particularly important to understand how climate changes on a regional scale and gets related to an overall global change of climate, and how the oceans affect global heat transport and the flux of greenhouse gases.

Funding for research, develop-



Deforestation must be stopped

ment and the transfer of information on renewable energy should be significantly increased, and technology transfer should be extended with particular emphasis on the needs of developing countries.

Funding for extensive technology transfer and technical cooperation projects in coastal zone protection and management should be expanded.

Deforestation should be reduced and afforestation increased through establishment of a trust fund to provide adequate incentives to developing nations to manage their tropical forest resources at a sus-

tainable level.

Technical cooperation projects to allow developing nations to participate in international mitigation efforts should be developed and supported.

Funding may be increased to non-governmental organisations for establishment of environmental education programmes and public awareness campaigns that would aim at changing public values and behaviour with respect to the environment.

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Smoke emission has to be restricted

Save Savar from further degradation

Like the other suburbs around the capital--Gazipur and Narayanganj-Savar is also under the jurisdiction of Rajuk, but allegedly because of manpower shortage it cannot operate as much it is necessary for Savar.

PROBIR KUMAR SARKER

OVER the recent years, Savar is experiencing immense pressure of new industrial, commercial and residential establishments. But most of these have already been done or are underway indiscriminately haphazardly, and by violating the environmental laws and ignoring overall public convenience, not to speak of the care for future growth.

It has been a lucrative location for the industries because of its short distance from Dhaka. This and availability of communication facility also have prompted many people working in the capital to set up their permanent residence in Savar.

Meanwhile, utility services for residence and enterprises have been increasing in Savar--new gas and electricity connections (though loadshedding is rampant), shopping centres, kitchen markets, roads and

increased transport facilities.

Besides garments and other industries, Savar accommodates the highest number of conventional brick fields emitting black smoke into the air while the EPZ and other localised industries still discharge waste water into the nearby waterbodies and low lands.

Polluted air contains excessive carbon monoxide, sulphur dioxide, nitrogen dioxide, ozone and particulate matter and leave short- and long-term impact on people's health, as well as the environment. People, mainly infants and pregnant women among the poor, are the most exposed to such pollutants.

In addition to this, pollutants from industrial waste include asbestos fibres, sulphur, lead, mercury, nitrates and phosphates. These lead to asbestososis, mesothelioma, cancer in lung, intestinal and liver and depleting oxygen supply in water.

After the construction of Dhaka-Aricha and Dhaka-Tangail highways, all these establishments got a spree. Still there are hundreds of under-construction industries and also hundreds others who have been operating in environmentally sensitive locations apparently unlawfully and defying public concern.

The lack of proper monitoring of the capital's real estate regulator Rajdhani Unnayan Kartirpakkha or Rajuk, the Department of Environment and relaxed mood of the industries ministry, have been responsible for the unplanned growth and prevailing threat of severe contamination to canals and rivers, and of air pollution, besides that are caused by dumping of solid waste, decreasing arable land and filling of low lands and waterbodies.

The current situation has not been created in a day or month. It has been ill-developed before the eyes of the government's top policymakers and authorities concerned, who let it go this way. But given the trend of urbanisation--growth of city-population, expansion of working area, extension of the capital and

decentralisation of industries from there -- they should have planned the whole thing much before. Now it has become prime concern for many including the locals as well as the environmentalists: what about the future of the area?

Green groups demand that the government immediately check the establishment of hazardous industries beside the highways, waterbodies and agriculture lands; punish the industries discharging waste water into the canals and rivers and encroaching of the rivers; halt throwing and dumping of waste haphazardly and curbing black smoke emission from the brick fields and other industries.

Highly dense Savar Upazila under Dhaka district has an area of 280.13 sq km. It is bounded by Kaliakair and Gazipur Sadar upazilas on the north, Keraniganj Upazila on the south, Mirpur, Mohammadpur, Pallabi and Uttara thanas of Dhaka on the east, Dhamrai and Singair upazilas on the west. Kaliakair and Gazipur, Dhamrai and Singair have been developed much over the past decade thanks to the industrial establishments. Savar is competing with these areas in terms of new structures.

The southern part of the upazila is composed of the alluvial soil of the Bangshi and Dhalashwari rivers. Main rivers are Bangshi, Turag, Buriganga and Karnatali -- all facing severe pollution due to the unplanned growth.

At present, a number of mega housing projects are underway in Hemayetpur, Bank Town, Savar Bazar, Nabinagar and Ashulia areas, while many others have already been set up. But the people who are going to be added to the existing population may experience much degraded air quality, darker water in the canals and rivers and water clogging on streets and compounds since there have been no concrete measure underway by the government's wings entitled to ensure a planned housing



Discharge from industrial establishment at Bank Town polluting adjacent waterbody.

in a congenial environment.

The authorities concerned, mainly the DoE, appear indifferent or helpless. The officials admit that they cannot deter economic advancement roughly by undertaking series of enforcement drives to demolish or order shifting of industries polluting the environment.

Like the other suburbs around the capital--Gazipur and Narayanganj-Savar is also under the jurisdiction of Rajuk, but allegedly because of manpower shortage it cannot operate as much it is necessary for Savar. Neither the DoE, nor Rajuk has their branch offices in the economically significant area.

The number of brick kilns operating near Aminibazar, beside Dhaka-Aricha highway, and in Ashulia, on the bank of Turag River and in the middle of agriculture lands, proves the government's indifference or weakness. Most of these brick fields also use firewood when use of coal is mandatory for them.

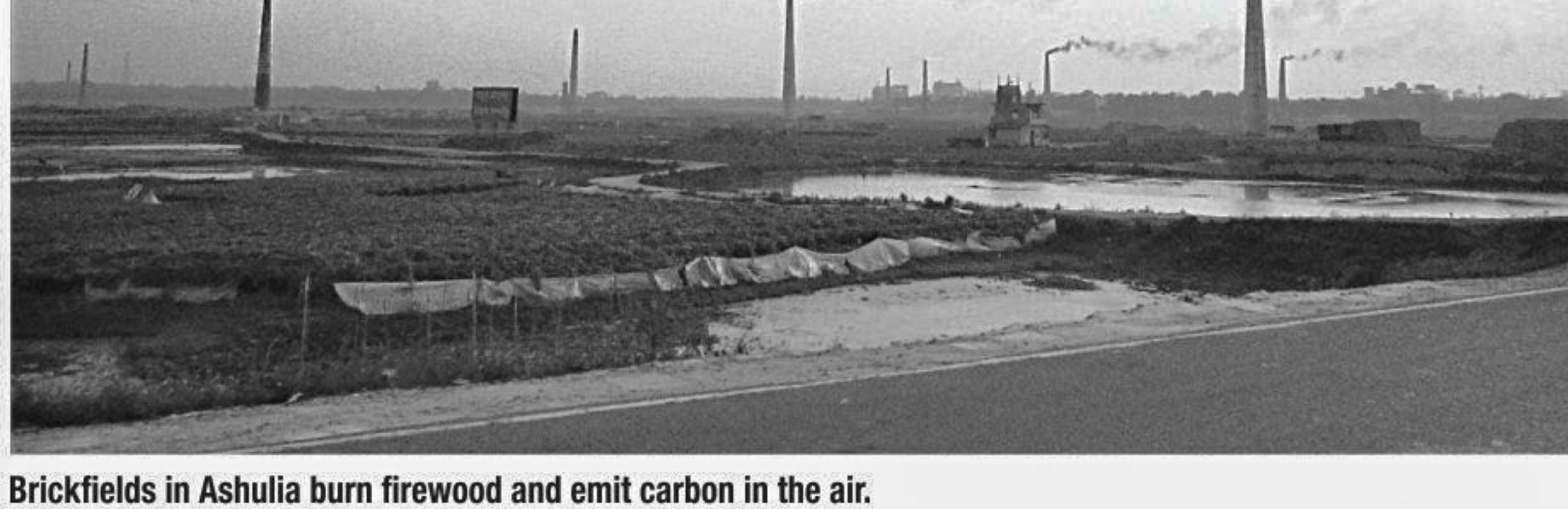
Moreover, the industries in DEPZ

are yet to have a central effluent treatment plant (ETP) to ensure discharge of harmless water while the individual factories set up here and there either don't have ETPs or keeping those dysfunctional most of the time to save money. Dumping of industrial solid waste is also severely polluting the environment of the surrounding areas.

Environmentalists also stress the need for comprehensive and visionary plans so that the tannery estate in Hemayetpur which is set to open in two years do not again become the reason of polluting Dholeshwari and Buriganga rivers as the tanneries have been doing in the capital's Hazaribagh area.

Admitting all shortcomings and compulsions, the question remains: Without checking the prevailing miserable state of the environment in Savar area, how the newcomers here in the under-construction residential areas and industries will survive and remain healthy?

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Brickfields in Ashulia burn firewood and emit carbon in the air.