

Saving Dhaka's polluted rivers: Drawing on recent experiences

Given the current civil awareness of Dhaka's pollution issues, and some good examples of just what can be achieved, the right leadership could really effect a powerful change for the future of Greater Dhaka. Such leadership would help bring together all key government, industrial and civil society stakeholders around the table to agree on a concrete plan of action.

XIAN ZHU and CATHERINE TOVEY

GREATER Dhaka has been a major engine of growth and prosperity in Bangladesh, representing more than 40% of Bangladesh's national GDP. This rapidly growing city of 12 million inhabitants has also emerged as a major hub for over 7000 small and medium scale industries.

Yet, Dhaka's sustainability is increasingly under threat due to the severe pollution of its rivers, khals, and aquifers. The pollution of Dhaka's water sources has reached alarming levels, threatening public health, ecosystems and economic growth.

Although industries account for over 60 percent of the pollution in the Dhaka watershed, industrial growth is not the principle culprit. Instead, the underlying pollution problems stem from unplanned, un-serviced urbanization, lack of enforcement, disincentives for environmental conservation and governance constraints. In sum, there is an institutional vacuum where everybody -- and nobody -- is responsible for protecting the Dhaka watershed. As a result, most industries do not have the right incentives to treat their wastewater and invest in cleaner technologies and processes.

On the positive side, the tide seems to be turning as widespread concern for the pollution of the Dhaka watershed is mounting. Over the past few months, the Daily Star-Channel 1 'Save Dhaka Save River' campaign has been at the forefront of a national civil movement resulting in widespread calls from both the public

and parliament for pragmatic solutions to save Dhaka's dying rivers.

Growing public awareness of the seriousness of the pollution threat will help push for greater accountability from both the government and private sector in addressing these concerns. Moreover, pressure for change is also emerging from within, as industries themselves particularly in the export driven textiles and tannery sectors--are starting to face increased pressure from international buyers to comply with basic environmental standards.

There is thus a real opportunity to change the status quo. The challenge is now to channel these calls for change into concrete actions, starting at the highest level. This requires a coordinated, sequenced approach.

Here in Bangladesh, the government has already demonstrated, in recent years, its ability to tackle other significant pollution threats in Dhaka through decisive leadership and coordinated action. For instance, the removal of two-stroke engine three-wheelers in 2003 was a landmark achievement which led to a quantum jump improvement in air quality in Dhaka. Equally effective, was the Ministry of Environment and Forests' ban on the production, marketing and use of polyethylene bags which were found to be slowly filling the city's sewers and rivers.

Indeed, the serious wastewater pollution problems currently facing Dhaka are by no means unique. In searching for a pragmatic way forward, many useful

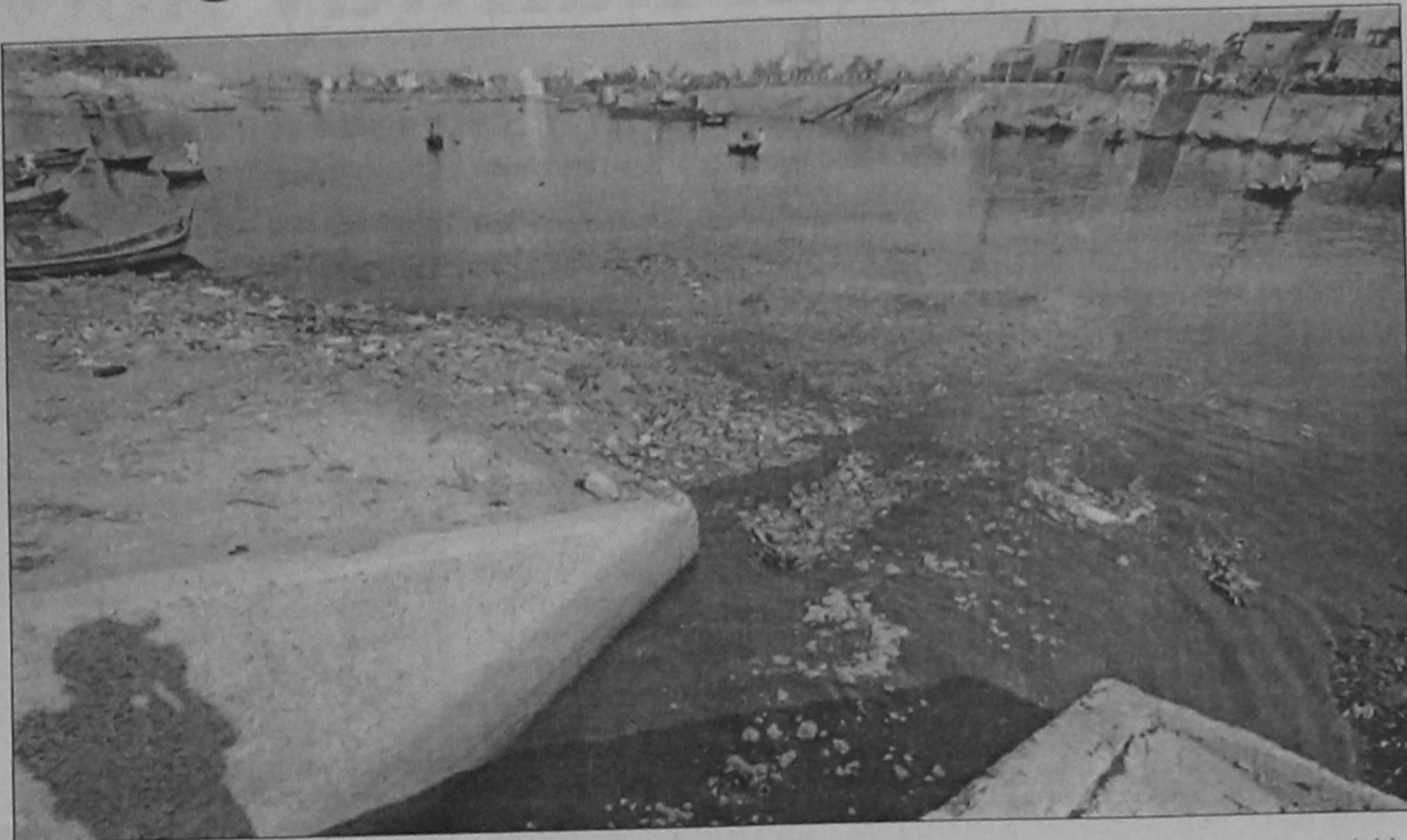
lessons can be learnt from other neighbouring Asian countries which have successfully dealt with severe industrial pollution problems in fast-growing mega-cities.

Several countries, for instance, have set up dedicated pollution control agencies to simplify operations and enhance accountability. In Thailand's Ministry of Science, Technology and Environment, for instance, pollution control functions have been separated from environmental policy, planning and environmental quality protection. The evolution of State Pollution Control Boards in India also highlighted the importance of creating enforcement agencies with greater financial and human resources autonomy.

The application of the *Polluter Pays Principle*, which has been widely adopted around the world, is an important complementary tool. The pollution charges being levied can help pollution control boards become financially self-sufficient and create stronger internal incentives to enforce environmental compliance. Its success depends on getting the price right--as there needs to be clear incentives for industries to invest in wastewater treatment.

Relying on environmental enforcement from state agencies is generally not sufficient. In order to enable industries to make a viable, cost-effective transition, the introduction of pollution charges also needs to be backed by extensive technical support to industries--including environmental audits, cost-effective cleaner production and waste-recycling--and may sometimes need to be combined with financial support for smaller units.

Third-party monitoring, by the judiciary, civil society or international buyers for global supply chains, plays an equally important complementary role. In Thailand, court actions have often been necessary where stricter enforcement measures are required, particularly for the highly toxic and carcinogenic waste from heavy industries along its eastern seaboard. In the Bali province of



Indonesia, 'action learning programmes' involving government, industries, NGOs and local communities have helped increase accountability and transparency of key processes through better monitoring. Finally, responsible sourcing initiatives and environmental certification can provide a strong incentive for export-driven industries to maintain their competitive edge in a rapidly evolving global market.

Nevertheless, even with the above incentives, environmental compliance is much harder to achieve for small and medium enterprises, due to their limited financial, technical and managerial capacity. In the state of Tamil Nadu in India, clusters of small tanneries facing closure successfully organized themselves around Common Effluent Treatment Plants. CETPs tend to be most appropriate where there are defined clusters of small to medium enterprises which produce significant wastewater.

The costs of pollution abatement with CETPs can be as low as 1-3% of average production costs, thanks to economies of scale and greater eligibility for financial subsidies.

Many of these promising practices could be implemented in Bangladesh. However, the most important lesson is that, in all cases, the key ingredient of success has been a real willingness to change the status quo.

The Government of Bangladesh has requested the World Bank to help prepare a new project to start addressing industrial water pollution issues in the Dhaka watershed, drawing on global best practice. The project is designed to support improved environmental management and compliance, finance investments in effluent abatement, including common effluent treatment plants, and provide extensive technical assistance to industries. The World Bank is privileged to be

associated with such an important initiative for the future of Dhaka and is looking forward to supporting the Government of Bangladesh in any way it can--including towards the development of an apex pollution control body if desired.

Given the current civil awareness of Dhaka's pollution issues, and some good examples of just what can be achieved, the right leadership could really effect a powerful change for the future of Greater Dhaka. Such leadership would help bring together all key government, industrial and civil society stakeholders around the table to agree on a concrete plan of action. We are fully committed to supporting this top priority in partnership with all Bangladeshi stakeholders and other interested development partners.

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Gaziul Huq: A personal recollection

MAHFUZUR RAHMAN

It is the arts-faculty building of Dacca University sometime in the early nineteen fifties. The lawn of the faculty is green. There is the mango tree. At the north-west corner of the lawn stands a low tin-shed called Modhur Restaurant, where one could spend hours over cups of tea and raise storms in them. The place is always crowded. And from that crowd one could hear a roar of laughter that would burst out of that tin-shed, and then roll on to the lawn, spread past the mango tree and way beyond. That laughter could only be Gaziul Huq's.

Gaziul Huq: Medium built. Fair complexioned. With his head of dense, curly hair, a formidable moustache under the nose, in his light-brown home-spun pajama and punjabi and a pair of Bata slippers, he would stand out in any crowd. There would often be a lighted cigarette between his fingers. He would hold the cigarette between his index and

middle fingers, make a fist, put his lips to the cavity just created and take a mighty pull. A cloud of smoke would next billow out of his parted lips.

In the student community of the nineteen fifties Gaziul Huq was more commonly the endearing Gazi Bhai. He attracted those around him like a magnet. A freshman in nineteen fifty one, I too got drawn towards him. He had two attractions for me. He was a communist and I in my late teens was beginning to draw inspiration from that ideology. The second attraction was his infectious laughter. A man who could laugh like that could only be unpretentious, capable of loving any fellow human being, totally averse to spitting any. He proved this with his life.

I came to know Gazi Bhai entirely through the language movement. And soon came the twenty-first of February, 1952. Gazi Bhai will forever remain etched in the giant mural of the language movement of the Bengali people. With other stalwarts, he led and inspired the move-

ment. On that unforgettable day in February, under the mango tree, he chaired the student meeting that decided to defy an unjustifiable police ban on demonstrations. To scatter the students, the police charged into the faculty premises, firing rounds of teargas shells and beating whoever came their way. The air was thick with eye-stinging teargas. One of the shells hit Gazi Bhai. He lost consciousness. The intensity of the gas must have contributed to this. A group of students carried him to the second floor of the faculty building. There he was doused with water. Soon he came round. I am witness to all this. It has sometimes been said that his losing of consciousness was a sham or, at best an exaggeration. To those of us who were very near him at the moment, neither was true.

Twenty-first February, nineteen fifty three. It was very early in the morning. I was hurrying to Fazlul Huq Hall. From within was coming the sound of Prabhat Feri song: "Bhulobona, Ekushey February, Bhulobona..." The author of

the song was Gaziul Huq. And he was singing it. That was before Abdul Gaffar Chowdhury's *Amar Bhaiyer Rakte Rangano Ekushey February* " became famous, and rightly so. That morning, the song was on the lips of hundreds of students. We sang as we proceeded to Azimpur graveyard in a huge procession. Gazi Bhai had a leading role in organizing Ekushey anniversary. Later that day, one of the largest processions in the history of Dhaka started from the arts faculty, this time unhindered, with Gazi Bhai among the leaders.

During the 1954 anniversary he was in jail in Bogra. In the February of 1955 too he was behind bars, this time in Dacca Central Jail. In my extremely limited way I continued to take part in the movement. But I lost touch with Gazi Bhai soon.

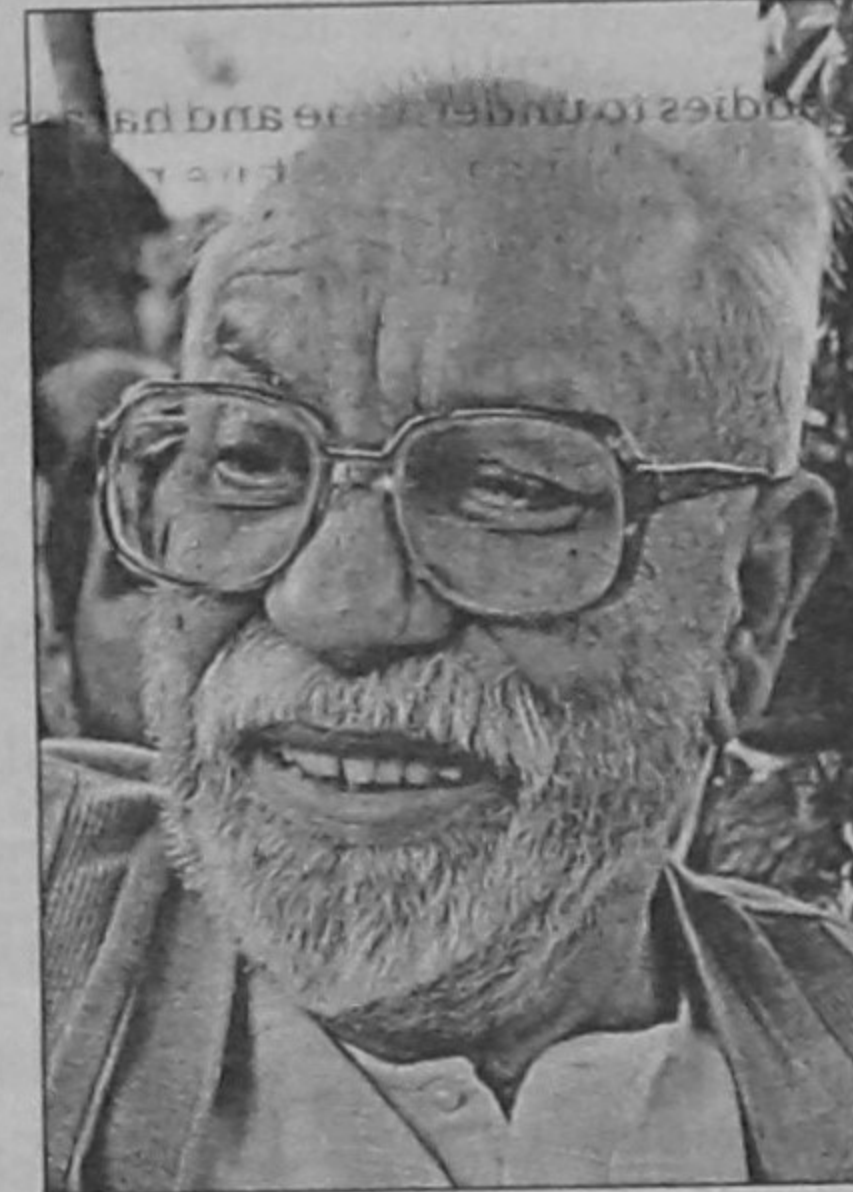
We met years later, in New York. A common friend, Dr. Khondkar Alamgir, fetched him to my apartment in Manhattan. He had told Gazi Bhai my name. He could not recollect it. I opened the door of the apart-

ment to him. He did not recognize me. In desperation I burst out singing the first lines a favourite song of his: "Naojoan, Naojoan, Bishue Jegechhe Naojoan...". Recognition flashed across his face: "I know you, I know you!" he exclaimed. He embraced me. There was again that infectious laughter.

He was in New York for an Ekushey February celebration. He spoke at a large gathering. I have heard him speak on many occasions. I have rarely heard anyone speak about the language movement so lucidly, without notes.

Over the last one and a half decades during my annual trip to Bangladesh I have met him once a year. Every time he was mighty pleased to see me. We talked endlessly. Then suddenly he fell silent. I still visited him annually like a pilgrimage at his Rampura house in his sunset days. He would stare at me. Was he still trying to recognize me?

I knew Gaziul Huq primarily as a quintessential fighter for the Bangla language, a true *Bhasa Sainik*. But I also



came to know him as a decent man. I shall always remember him as both. *Bidaay, Ghazi Bhai!*

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INDUSTRIAL POLLUTION

Directives must be complied with

There must be some agenda for change. Encouragingly, the Prime Minister has instructed the authorities to take immediate steps to contain widespread pollution and encroachment. The High Court directive to shift the Hazaribagh tannery industries by next February, if complied with, will go a long way in reducing the pollution load.

MD. ASADULLAH KHAN

FOR the last three decades the slow but certain devastation caused by industrial pollution and has been going unabated. Only a either in the administration or politics have kept track of the toll it has been exacting on the national life. Concerned citizenry and the national electronic and print media have from time to time raised alarm but all these seem to have fallen on deaf ears.

In recent times groups of environmentalists in the country raised public protests and urged the government to enforce laws to curb this soaring levels of pollution. This is the first time that the Prime Minister Sk. Hasina herself has directed the industries concerned to set up waste treatment plant in their units that are causing pollution, especially the river water.

The pollution menace as well as the environmental disaster have taken a long time in the making. So long ecological concerns were shunted aside in the rush unplanned toward industrializa-

tion and growth. Only now is the full extent of the country's ecological disaster emerging.

A survey conducted by the DoE in the recent past that identified 1176 industrial units as most polluters reveals that 14,000 tonnes of solid waste and 16,000 cubic metres of chemical waste are discharged by the industries every year into the rivers of Dhaka and their adjacent areas while 12,000 industries discharge 35,000 cubic metres of waste in the river water every day.

The major polluter industries include fertilizer, pulp, and paper mills, pharmaceuticals, textiles printing and finishing, iron and steel mills, cement, pesticides and plastic industries, distilleries and sugar mills generating different types of solid, liquid and gaseous waste.

The country's pollution menace does more than degrade the quality of life. This dramatically cripples and shortens it. In recent times community health physicians calculate that illnesses traceable to environmental pollution account for more than 30 per cent of the country's health budget. One out of 20 people

dies of environmentally induced causes, officials estimate.

The present government overwhelmed by political and economic disarray in consequence of world-wide recession can scarcely think about the environmental nightmare it has inherited. It might take huge amount to the tune of millions of dollars to clean up the magnitude of accumulated industrial pollution. In the neighbouring India more than 10,000 industries nationwide were either shut down or asked to move out of cities, mostly by the courts, whom citizens approached as the last resort.

Respiratory ailment, allergies, skin diseases, diseases of the central nervous system and cancers have increased several times over the last few years among the residents of cities. People now realize that irrational industrial policies adopted in the past make a mockery of environmental requirements.

However, there are some practical difficulties and constraints standing in the way. It has been learnt that most effluent treatment plants can be installed within 5 to 15 per cent of the total cost in industries like paper; for manufacturers of consumer electronic goods the cost can be as high as 25 to 40 per cent of the total investment. Pollution control systems in power stations can be as high as the investment.

Tejgaon industrial area is now created right in the heart of the city's residential areas. Besides, connivance from the regulatory authorities did not stop the

growth of industrial units in other densely populated areas. In some of these densely populated areas excessive use of varnish, dye, coal tar, acids, phenyl, carbide, sulphur, gunpowder, and chlorine has created a hazardous situation.

Organochlorines are particularly damaging because they travel through food chain and affect the liver and kidney, may cause cancer and interfere with processes like brain chemistry, spleen and bone structure and also to the extent of causing hormonal diseases. The outlook is ominous. Treated effluent water containing organochlorines is widely used to irrigate crop fields.

The biggest environmental hazard perhaps has come from the 250 plus tanneries located in the Hazaribagh area of the metropolis. Untreated effluents to the extent of 22,000 cubic metres of liquid waste and 10 metric tons of solid waste per day are blatantly pumped into the final resting place Buriganga river through residential areas with no regard to the health of the people residing there.

The environmental protection laws provide jail terms of five years in default fine of taka two lakh to the violators who continue to defy repeated warnings. Ruefully, no one has yet been brought to book. Most visibly 567 industries not abiding by effluent treatment methods, contribute to more than 60 per cent of the poisons that pour into country's water system.

There must be some agenda for change. Encouragingly, the Prime Minister has instructed the authorities



to take immediate steps to contain widespread pollution and encroachment. But to address the problem properly, the government must think about constituting a River Authority like the GAP (Ganga Action Plan) and Lake Development Authority of in India. The High Court directive to shift the Hazaribagh tannery industries by next February, if complied with, will go a long way in reducing the pollution load. At the same time there must be proper laws regulating the location of industries.

In the backdrop of all these distressing signals, the stern warning issued by the Prime Minister in the cabinet meeting in the last month to control environment pollution and to introduce envi-

ronment laws along with the assurance of providing working capital for treatment of toxic effluents and sludge spewed by the industries is, however, a laudable step. This, among other measures recommended speaks of the awareness of the present government about the gravity of the problem that threatens people's life. Now we have to wait to see till the implementation process is started. True, we must realize all developments should be sustainable, meaning that it should use up resources no faster than they can be replenished by nature.

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