

Together towards better environment

"Environmentalism sees humanity as a biological species tightly dependent on the natural world. Many of the world's vital resources are about to be exhausted, its atmospheric chemistry deteriorating and human populations have already grown dangerously large. Natural ecosystems, the wellspring of a healthy environment, are being irreversibly degraded."

— E. O. Wilson

ENVIRONMENTAL degradation has taken its toll on the standard of living of the people in Bangladesh. Ominous levels of carbon dioxide, carbon monoxide, sulphur dioxide and other harmful gases emitted from motorised vehicles and industrial establishments, the way garbage is being disposed and land burnt, the way lakes and low-lying areas are being filled up with wastes and high-rises, the way trees and hills are being cut off randomly, all contribute to an unhealthy environment. This dramatically lowers life expectancy and has a dire effect on the overall performance of a person. A breath of polluted air is hardly a good way to start the day. This is what happens every morning. And in this case, the morning does show the day. As the day proceeds, the number of cars on the streets increases.

Dhaka's alarming level of pollution is evident from the emergence of an increasing number of masked commuters. This touch of novelty on the capital's face is actually the tell-tale sign of the dire situation of air pollution. Such high density of pollution is mostly the cause of the presence of so many cars plying the streets. In relation to the road space available, the number of vehicles are too many and, as unplanned as they are, on the rise. Buses, trucks and other such vehicles may be considered to be economical because by using an equivalent amount of fuel and space they carry many passengers, while cars carry up to a maximum of four or five people. However, the traffic system is failing such, the buses appear to be causing the maximum output of pollution. The rickshaws may not add to the pollution, but what they do is slow the pace of traffic. The motor vehicles have to slow down, which means more fuel consumption and more gas emission.

The next problem that arises is noise pollution. In the Bangladesh context, noise seems to be no problem at all. Whereas car horns signify a form of scolding in developed nations, honking is basically a necessity here. In fact, even institutional driving lessons include lessons about where and when to use the car horn. Loud music, noisy parties and other such nuisances do manage to aggravate people, but these activities are hardly called 'out of the book'. The standard of living here is so low that this is considered trivial. People have to think about the big problems first and then notice such trivialities — but this noise terrorism is formidable enough to cause hearing impairment, hypertension and numerous other afflictions in those repeatedly exposed to it. Noise pollution, however, is not easily defined. Part of the difficulty lies in the fact that in some ways it is different from other forms of pollution. Noise is transient, once the pollution stops, the environment is free of it.

Lack of proper waste management adds more negative impacts.

Garbage is one of the major problems in the city. It is the garbage dumps that are home to the many kinds of diseases. They are the breeding places of mosquitoes, flies and many other known and unknown insects, all of whom contribute to disease transmission. According to news reports, 35 thousand tonnes of solid waste is generated each day, of which only 42 per cent is collected by the Dhaka City Corporation (DCC). The rest remain on roadsides, low-lying areas and open drains. The highest component of solid waste is organic food waste. Other components are plastics, paper, metal, glass, construction material and clothes. Therefore, garbage makes many of diseases that are prevalent here possible.

Water quality degradation is mainly because of poor sanitation, mismanagement of industrial effluents, and the way pesticide are used in order to kill mosquito larvae and the like. In the 1970s and 1980s the government in co-operation with United Nations Children's Fund and other multilateral agencies, embarked on a massive country-wide programme of ensuring safe drinking water. Over a period of nearly 25 years, the Bangladesh government, with technical and financial assistance from the donor agencies, set about a massive programme of installing deep tube-wells throughout the country.

Four million tube-wells were sunk. A motivational campaign was set forth in order to motivate the villagers to switch from using surface water to ground water from the underground aquifers. While conceiving and implementing the massive tube-well programme, planners overlooked the possibility of the naturally occurring arsenic deposits that could contaminate the subterranean water sources. To the satisfaction of all concerned, Bangladesh achieved a near-perfect target of providing safe water for its people through sinking those hand-pumped wells.

But now, the success story has been reversed. Arsenic contamination in Bangladesh may well be the story of the biggest mass-poisoning in the history of mankind.

Urban degradation stems from lack of clean water, poor

solid waste management and air pollution. Poor management of water resources and unresolved issues such as balancing the needs and potential of hydropower, irrigation, and inland fisheries lead to water crises. Dwindling forests, coastal wetlands, and freshwater bodies and poorly managed protected areas, all are part of land degradation. Soil degradation is prevalent in agricultural and range lands. Energy-related damage from the commercial energy sectors and the collection and burning of biomass again leads to air pollution. The impact of global climate change, particularly in low-lying Bangladesh, is of concern because it manages to disrupt habitats and any form of environmental decorum.

The problem is not, however, confined to Bangladesh. In fact, environmental degradation in the South Asian region has been on for many years, induced by the familiar factors of increasing industrial and urban pollution in urban areas and degradation in rural and coastal areas from the unsustainable use of land, forests, and water resources. India shows rising levels of sickness and death from pollution, as well as economic costs attributable to resource degradation of more than five per cent of GDP. Pakistan, Bangladesh and other countries in the region are experiencing similar trends, albeit at lower levels.

In the face of these problems, there have been some notable environmental initiatives. Private sector investment in industrial pollution control and common effluent treatment plants are expanding in India, partly in response to private sector ISO incentives and to the voluntary compliance of some larger industries. Cleaner vehicle fuels, such as unleaded gasoline in major Indian cities and compressed natural gas (CNG) in Dhaka, are being introduced. Joint forestry management involving local communities and government in India and Nepal is slowing forest degradation in some of their hill areas, and private plantations are increasing the tree cover in other degraded areas, such as in West Bengal. Investment in renewable energy in India and Sri Lanka, especially wind and small-scale hydro, has been significant. A water treaty between India and Bangladesh has reduced bilateral environmental cooperation, and the rights to the water of the Ganges, and is helping guarantee minimum flows to Bangladesh during the dry season. This will help restore aquifers, provide needed irrigation water, and maintain sufficient flows to the Sundarbans, the world's largest mangrove area to reduce the saltwater intrusion that has already started to take place.

But South Asia needs more than isolated environmental initiatives; it needs improved planning and management, which is largely an institutional challenge. But political support for environmental management is sporadic at best, and surfaces mainly in reaction to crises. Experience with stand-alone environmental investments in the region has been mixed due largely to the lack of capacity of environmental 'ministries'. Therefore, investments should be sectoral, and in collaboration with non-government organisations. In this region, no investment plan can be made by a sole organisation, be it a government agency.

This mainstreaming approach may prove promising because it involves developing environmental capacity in sector ministries and, in the case of India and Pakistan, at the state and local levels. The environmental components of sector investments focus on appropriate policies, good management, and pollution abatement incentives rather than on narrow actions to deal with specific environmental problems. This approach may also encourage private sector investment and community involvement in addressing pollution problems, and focus the role of government more towards regulatory concerns than investment responsibilities. For example, a strong push to increase the share of private investment in urban and regional infrastructure, ranging from roads to water supply and sanitation to telecommunications. Governments cannot continue to finance all of these investment needs, especially in light of low cost recovery. In industrial pollution control, the practice of the public sector financing the construction of effluent treatment plants may be replaced by private sector solutions. Public awareness of environmental issues is steadily increasing in the region due to NGO activity, the media, activist courts and government education programmes. This increased awareness is fundamental to both improving the effectiveness of government policies and enabling greater decentralisation to local agencies and communities.

Efforts for environment preservation and protection in Bangladesh may include replacement of two-stroke vehicle engine. A decision has been taken in this respect whereby two-stroke engines will be removed in phases over a five-year period and replaced by four-stroke engines. If policies are to be undertaken, they should be modelled along these lines. For example, a recent World Bank project-policy has been formulated to eliminate the (TSV) (two-stroke) within next four years, by substituting these with 2,000 buses. If this is true, there is certainly hope.

Strategies that address fisheries research, environmental emergencies, large marine

Environment degradation has assumed ominous proportions in the country. Comprehensive environment protection plan is the cry of the hour, write Navine Murshid and Ekram Kabir

ecosystems, and coastal zone management in and around the Bay of Bengal would be beneficial to Bangladesh as well as neighbouring countries. Improvement of regional co-operation in the poorest part of South Asia (Bangladesh, Bhutan, Nepal, and eastern India) in water resource management, energy development and trade, and transport and commerce would be beneficial as well.

Cultural heritage in South Asia, may be carried out in Bangladesh, India, and Nepal, to promote active involvement and financial support of the public, non-profit and private sectors to rehabilitate national heritage sites that are deteriorating from neglect and environmental damage (such as the neglected Sonargaon in Gazipur).

The solution may be found in integrated environmental management. Rather than just pollution control, a strategy could be devised using a broad mix of incentives and pressures to achieve sustainable environmental improvements.

With their growing understanding of the close linkages between economic growth, poverty alleviation and environmental degradation, the countries of the region are beginning to generate the political will to introduce needed regulatory, financial, and policy reforms, including private sector incentives. To assist this process, improved environmental assessment of all investments must be supported; a greater strategic sense in government and community operations regarding the need for more efficient use of scarce natural resources must be instilled. This approach may prove important for meeting the environmental challenges that lie ahead.

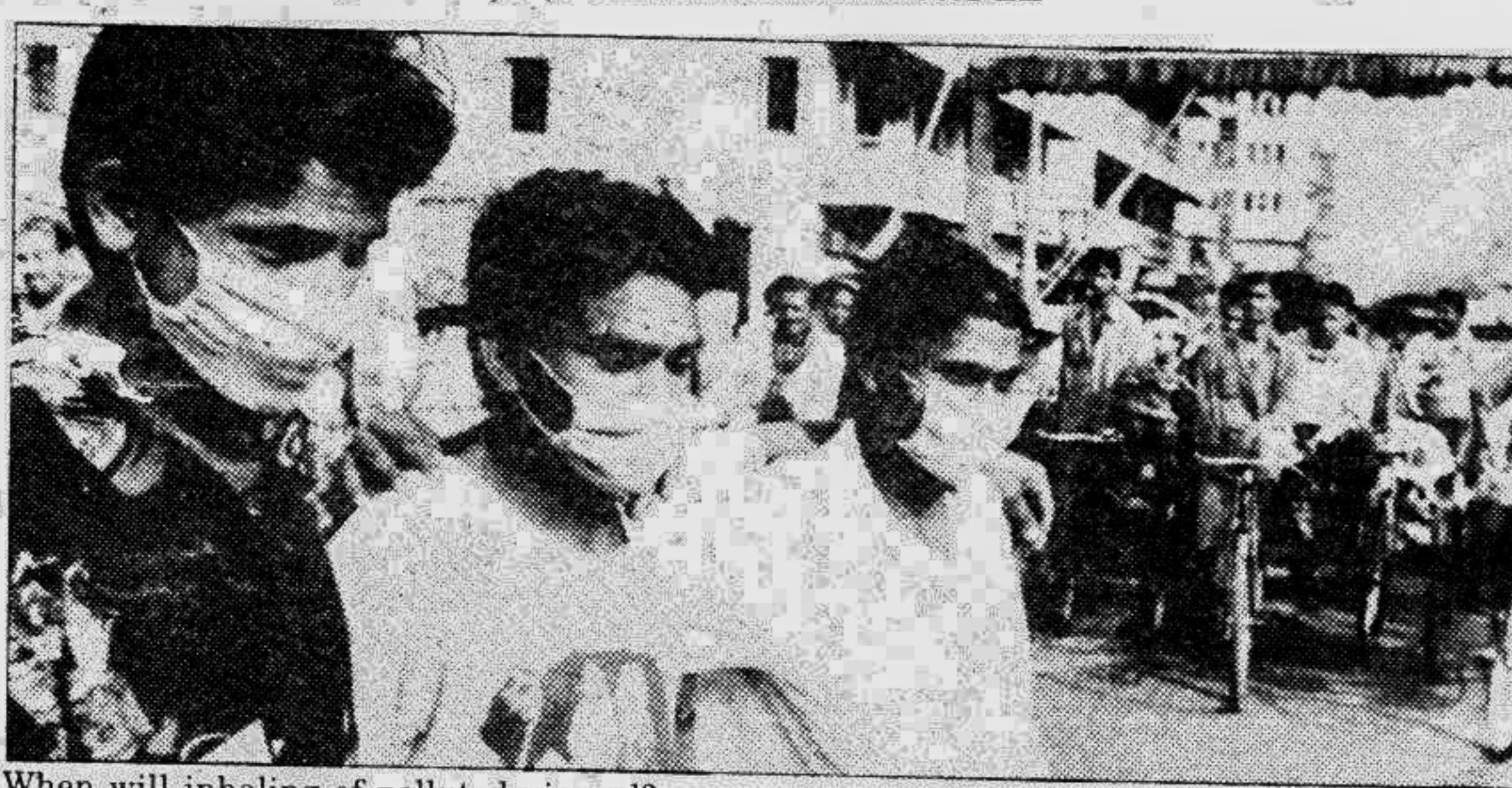
As a result of increasing awareness of the dangers of lead to human health and measures to tackle urban air pollution, the use of lead additives in gasoline has been declining rapidly globally since the 70s. Many countries have completely eliminated the use of lead in gasoline, but in Bangladesh, lead still ranks as one of the most serious and widespread environmental hazards although it is one that is relatively

inexpensive to remedy. A process of phasing out lead from gasoline should be instilled. The government has taken a step to import lead-free petrol. This may be a welcome, but what happens after that has to be checked as well. To the people's disquiet, there were reports that retailers have been selling spurious oil and there are bound to be more such cases. It is our failure that we bring ourselves down even on our way towards progress. This only means that stricter watch-guards are required. This is a problem that has to be solved. This cannot be added to the list of lost causes.

Major sources and levels of lead exposure in the region have to be identified, as well as the costs of phasing out leaded gasoline. Human health improvements and lessons of experience from other countries in the region have to be made public. One case study, for example, describes in detail the complete phase-out of leaded gasoline in the Slovak Republic. Although it recognises the importance of dealing with all significant sources of lead exposure, the study focuses on lead exposure from exhaust of vehicles, using leaded gasoline. Industrial pollution hits the poorest hardest. This is because most factories are located in poor neighbourhoods. There may be different reasons for this. It could be that the factories are deliberately located there. It is likely that poorer communities are less adept at opposing damaging planning proposals than wealthier communities. Or it could be that as workers' incomes increased they moved away, leaving a sea of low income, potentially unemployed householders to live near the factory. The household incomes around some of the sites are low enough to suggest that moving to greener more pleasant locations is no more than a distant dream for these people. Regardless of the reason for the location of polluting factories, it is clear that poor communities are hit hardest by industrial pollution. What impact this pollution has on people's health is difficult to pinpoint because there are so many other factors involved, like diet

and housing. But it is clear that our biggest factories do release huge amounts of health-threatening chemicals. Death rate from lung cancer in women under 65 has increased, suggesting a causal relationship between industrial pollution and health. Whatever the link, tackling this pollution, has to be socially progressive. The health of every individual, especially those in vulnerable and high-risk groups, must be protected. Special attention should be paid to disadvantaged groups. It is those amongst the most disadvantaged, the poorest in our society, who have to put up with pollution from the biggest factories, cars, trucks etc., on a daily basis. The impact on their health is understandably bad. This challenge is to provide everyone with a suitable, clean environment and tackle pollution injustice, i.e., the poor who are the worst victims of environmental hazards. Until something is done, they will continue to suffer unacceptable levels of pollution, and tackling social exclusion will not be fully achieved.

Above all, the factor that contributes to overall environmental degradation is population. Policies to use lead-free oil, to ban import of two-stroke engines, to clear slums, to bring about a healthy atmosphere will prove fruitless if the population problem cannot be



When will inhaling of polluted air end?

brought under control. Any policy to bring about a clean environment should therefore include population control programmes.

According to *The Progress of Nations*, the country's population in 1997 stood at 122.7 million with a GNP per capita of 270 US dollars. Under-18 population is 55.9 millions. Naturally, the number has increased meanwhile. With limited factors of production and negligible technological progress, the population growth is unsustainable. Life expectancy has increased significantly in recent times. In one sense, it is a good sign because this is indicative of better living standards and improved health conditions. However, on the other hand this indicates problems related with ageing population. Bangladesh had not had the experience to tackle problems to do with the elderly. It has known problems of high birth rates and yet has not been able to devise any sustainable mechanism by which it can be controlled. The phenomenon is a new perspective in our context and therefore harder to manipulate. If the problems prove fatal, there would be nothing the government, or anyone else can do. Planning is required from now so that we can face the problem as it emerges. Before that, lowering

birth rates has to be the main objective. Therefore, policies to improve the state of the environment should integrate in itself population control mechanisms. This could include objectives to raise the economic status of women, increase the mothers' opportunity cost to stay at home and include men in such programmes. The media can definitely play a crucial role in creating awareness. In this respect, BTV needs applause for portraying the problems in a comprehensive manner and that too at their peak tele-time.

Such initiatives are highly welcomed and effective. It is the people who create such environment degradation and hence it is the people who need to be tamed first, the people who need to have a civic conscience; the people who can make a difference. Development means progress, advancement and improvement.

However, there is one hitch. This is a poor country — a country where people fear starvation, where people work day and night only to maintain their present state of poverty. Here environmental awareness is a joke. Such strategies are seen as, and in many cases, are gimmicks of the West, to gain popularity and respect in the international context. If not tackled slowly and steadily, initiatives to protect Mother Nature would certainly fail.

The other name of Nature is forests. Forestry has always been judged as one of the agricultural sub-sectors in Bangladesh that contributes both to the economic and ecological stability. Primarily located in the Chittagong Hill Tracts, greater Sylhet, Dhaka, Mymensingh and Tangail districts, once the country was covered by forest. Population pressure has certainly taken its toll. The multilateral development banks, the forest department and other authorities blame growing population, widespread poverty, migration of landless people from the forest areas, shifting cultivation and inappropriate exploitation of forest resources for depletion and degradation of forests. Indiscriminate and illegal felling of trees, fuelwood collection, grazing, uncontrolled and wasteful commercial exploitation have added more harmful fillip to the already-decaying greenery.

A recent estimate says, total forest land in Bangladesh is about 2.6 million hectares or 18 per cent of the country's surface land. This is also categorised as 'state forest land' (2.2 million hectares) and 'private forest' land (0.4 million hectares). Of these, the Forest Department (FD) and the Ministry of Environment and Forests (MoEF) can exercise their laws only on 1.3 million hectares of land, which are natural forest and plantations; but these regulatory bodies are far from taking any actions against environment degradation activities that are taking place in the private lands. Then again, when state land is under various forms of threats, it is doubtful as to how much the government agencies can do in terms of saving the greenery. Forest that have hills and mountains are of particular interest to encroachers. Laws have been in place for a long time, there was nobody to enforce them. It's not only the trees and mountains that are lost to the destruction of forests; the animals are equally intimidated by unkind intervention by the humans. How long the forest Department would allow this to happen is a million-dollar question. A Forestry Master Plan formulated in 1993, is yet to be implemented.

Alongside, land and soil erosions are synonymous to floods that are recurring. Last year, two-thirds of the country was inundated, and more than half of the capital city was knee-deep in floodwater. More than 600 people have been killed and 21 million were left permanently or temporarily homeless. Diseases such as diarrhoea broke out because many sources of clean drinking water have been covered by dirty flood waters. The price of rice rose, and food shortages were feared as the worst floods for a hundred years have washed away \$300m worth of crops. The government said the 1998 flood was reaching those in need. But relief agencies reported there were enormous difficulties in getting food and medicine to stranded communities — who were all affected by this natural onslaught.

With a long-term fatalistic effect, flood, however, is now a disaster on unprecedented magnitudes. We normally lived — we still do — with the floods but not high floods of such enormous proportion. At the moment, the second spell of this year's flood is showing how ugly the consequences can be. The question that still seeks a good answer is, how can the disastrous effects of floods can be kept within a 'contained' level?

While we do not have a hand over such natural calamities, what we can do is provide safety nets. The 1998 floods have been well managed, thanks to the collaboration of the government and the private sector in order to bring about a workable flood management programme. The solution to the overall degradation may be found in integrated environmental management. Rather than just pollution-control, a strategy could be devised using a broad mix of incentives and pressures to achieve sustainable environmental improvement.

Projects should therefore include all environmental components — like vehicle emissions inspection programmes, improved slum sanitation and drainage system, wetlands conservation projects, water quality monitoring for arsenic etc., and environmental education. These could also be undertaken to improve air quality in Dhaka; to improve sanitation facilities, water quality, and nation-wide environmental awareness, and core environmental assessment and policy issues can be addressed.

Development, along with making the environment living-worthy in the South Asian backdrop, needs to be initiated collectively. Projects and programmes for development must be taken up for bringing about a qualitative change in the living standard of the 'people' — the poor, to be precise — surrounding the environment and the bio-diversity. However, when a project as such is conceived ignoring the well-being of the human majority, that is bound to have disastrous consequences.

In Bangladesh and in the neighbouring countries, we have seen ill-conceived projects turn into development disasters. These were mainly due to 'human' failure to assess the environment they live in. They may have had good intentions, but what resulted was further exploitation of the environment. The planning processes were faulty to begin with. The lesson is simple: people at the grassroots of the beneficiaries have to be consulted. Only then implementation of the projects may bear some fruits.

All for environment, environment for all

Secretary of the Ministry of Environment and Forest Syed Marghub Murshed talks to Quamrul Islam Chowdhury



As the secretary of the ministry of environment and forest, Syed Marghub Murshed has put all his efforts to manage the country's fragile environment and protect it from further degradation. Recently, in an exclusive interview with The Daily Star, Murshed shed light on some of the policy issues in particular and the ministry's outlook on critical environmental issues in general. Excerpts:

The Daily Star (DS): Bangladesh now faces a wide range of environmental problems ranging from acute arsenic contamination to deadly air pollution, from riverbank erosion to the threat of sea level rise, from deforestation to land degradation, high population growth to abject poverty that needs immediate attention. What does the ministry of environment and forest plan to take on these problems?

Syed Marghub Murshed (SMM): Our environmental problems are acute. In the past, we tended to pursue development without giving due attention to environmental aspects. We didn't care about sustainable development issues. It's not unique for Bangladesh alone. Other countries also ignored environmental issues in the past. Rising pressure of population and poverty can be ascribed to the continuing degradation of our environment.

But I'm optimistic. I believe with a co-ordinated effort by the government, NGOs, the civil society and other bodies, we will be able to conserve our nature. We must work together in a meaningful way to save our environment. The government alone, or the environment ministry or any single agency cannot address the environmental problems. The onus is not only on my ministry or the Department of Environment or the Department of Forest. People's participation is essential in solving the problems.

We have been successful in establishing linkages between environment and forestry. We are aware of climate changes and likely effects of the sea level rise. Our mangrove forests, the Sundarbans, would be adversely affected by the sea level rise. Afforestation is therefore extremely important as it is the conservation of forests, which promotes natural carbon sink.

The government has taken up measures to increase carbon sink by creating coastal green belt along our shores. We have seen many parts of our country came under the fury of cyclones, mangrove covered areas were spared. We are trying to withstand cyclones by expanding our mangrove covers. We intend to increase carbon sinks across the country. It will also help reduce the wind speed of cyclone and tornadoes. More areas will be brought under tree cover through expanding social forestry. Efforts are on to afford the Chittagong Hill Tracts as well.

We have also undertaken watershed management with FAO/Dutch expertise. Some 1400 square kilometres of the Sundarbans have been declared as World Heritage Site. We intend to develop eco-tourism there. We have also initiated bio-diversity project in the Sundarbans. We are also launching other conservation projects. We are in the process of developing a park from Himchhari to Teknaf where eco-tourism will be developed. A marine park will also be developed at the southern part of Sonadia and a green park at St Martin's island.

DS: Do you think these eco-tourism spots may expose our endangered species?

SMM: No, we wouldn't want to expose our species to tourists. Visitors will just have a tour around and return. They wouldn't be allowed to enter deep into the Sundarbans.

DS: But these are environmentally the most sensitive zones of our country. How can you protect those?

SMM: There is a moratorium on felling trees in the Sundarbans. Invoking Environment Conservation Act 1995, we are in the process of declaring some waterbodies of

Kushia, Jessore and Jhenaidha as environmentally sensitive areas. We have destroyed our natural aquifers. We must stop that now. Our groundwater table is falling.

Environment Ministry is now implementing 14 different development projects to save the nature and improve the environment.

DS: You had played an instrumental role during the formulation phase of Bangladesh's globally acclaimed National Environment Management Action Plan (NEMAP). How do you now evaluate this action plan? What actions are now needed to implement that plan into action?

SMM: NEMAP is a unique action plan prepared by the people and stakeholders through a consultative process. Now we are in the implementation phase of that action plan. We believe in consulting with the stakeholders. NEMAP is an example.

The most important project under implementation is SEMP, funded by UNDP. Besides, with CIDA assistance, strengthening of DoE project is also in progress. The World Bank assisted Air Quality Management project is also in progress. All

these projects are offshoots of NEMAP.

DS: What are the major areas of focus of the Sustainable Environment Management Programme (SEMP), the first follow-up of NEMAP?

SMM: Major areas of focus of SEMP are policy and institutions, participatory eco-system management, community-based environmental sanitation, awareness and advocacy and training and education.

The beauty of SEMP is that out of 22 sub-implementing agencies (SIAs), 13 are civil society bodies and NGOs with on-going successful programmes at the grass-roots level. There are government agencies like Bureau of Statistics, Department of Land Records, BIDS, EGIS, who are mainstreaming environment in the national planning, natural resource accounting, environmental statistics, improved land administration and management, coastal land use zoning in the south-west.

The issues of community-based flood-plain resource management, sustainable resource management in brackish water areas, sustainable livelihood in riverine shoals, eco-system management in the Barind areas are being addressed by a

number of NGOs with expertise in those fields.

DS: How best Bangladesh can achieve SEMP? What is your expectation from SEMP?

SMM: SEMP is an ambitious project. I'm very optimistic about its success. We started a little late in August 1998. Hopefully, despite the teething problems, we will be successful to take off.

DS: What is the present status of the proposed Bangladesh Environment Programme (BEP), another NEMAP follow-up supported by the World Bank?

SMM: The World Bank assisted BEP has been fragmented. Air Quality Monitoring project is an offshoot of BEP. Under this project we intend to address issues like introduction of lead-free petrol, low sulphur content petrol and conversion of two-stroke engines into four strokes.

DS: What about the Strengthening of Department of Environment under CIDA-funded other NEMAP follow-up programme?

SMM: It will help strengthen DoE to a great extent. We're also involving Deputy Commissioners, Superintendent of Police and LGED field staff to help address the environmental issues. I want to make one point very clear that environment is not the monopoly of environment ministry. We must work hand in hand with all related government agencies and civil society bodies in a concerted way to mitigate our environmental problems.

DS: In this age of environmental diplomacy, how the ministry could play its environment card promptly and efficiently? How can it raise its capacity in terms of global negotiation skills, accessing Global Environment Facility and other windows for improving the environment and conserving the nature?

SMM: In the field of eco-diplomacy we are a late starter. We are trying to play our environment card effectively. We are vulnerable to climate change and sea level rise. After the end of the Cold War, bilateral assistance has ceased to continue. We must use our environment card to access bilateral and multi-lateral funds, like Montreal Protocol Fund and Global Environment Facility.

DS: There are allegations that we are not properly handling our environment card. We have also failed squarely to access global environment funds?

SMM: We have been a late starter. But definitely we are trying to play it. We support Activities Implemented Jointly (AIJ) and Clean Development Mechanism to combat global climate change.

We intend to establish a sound environment regime in the country. By putting in place this sound regime, we can be beneficiary of the global fund.

DS: Thank you very much for your time.