

ENVIRONMENT

The Mid-winter's Nightmare

by Sarwat Chowdhury

The dust particles in the air collect with them bio-aerosols (microscopic living organisms or fragments of living things). These can cause severe health problems. Bio-aerosols floating about our homes consist of viruses, bacteria, mold spores, fungi, yeast, animal and insect allergens, pieces of dead skin, microscopic dust mites and their excrement. Breathing these various elements all the time obviously puts pressure on our immune systems.

MY recent visit to Bangladesh was once again laden with surprises. While I was mentally prepared for the traffic congestion and the overbearing sense of population density in our capital city, I was quite unprepared for assault of abundant dust and soot (dhula in Bangla). This abundance of dhula seems common to every street of Dhaka. In Dhanmondi, almost everyone seems to have decided to demolish their one- or two-story old houses and have begun building multi-storied buildings. It seems there are at least two five-star hotels to be built in Dhaka. Almost in every corner of Dhaka, there is a construction site and the accompanying dust. Then there are those much criticised two-stroke engine baby-taxis, a good number of re-conditioned cars and other vehicles still using leaded petrol and polluting our cities. The thick noxious fumes are clearly visible to any city-dweller.

Air Pollution and the Risk of Bio-aerosols: Our day-to-day lives in the heavily polluted air of the cities can only attest to the resiliency of our city dwellers. However, one cannot help but wonder, what if the situation gets worse? The word "smog" originally was used to describe the unpleasant combination of smoke and fog laced with sulfur dioxide which was formerly prevalent in London when high-sulfur coal was the primary fuel used in that city. In high concentrations, industrial smog can be very toxic to human beings. The harmful effects of smog occur mainly in the areas of human health and comfort, damage to materials, effects on the atmosphere, and toxicity to plants.

The heat of the sun during mid-morning in Dhaka felt like early summer days in Washington. But, it's only January! One cannot help feeling empathy for the poor traffic police or the street vendors who have to stand in that unhealthy environment all day long with only the makeshift mask covering their noses. But, the megacity in the evening is not comfortable either. After about a year and half, I find the streets almost completely under the spell of "smog". The situation in the evening in some major streets is so serious that you can hardly see any approaching vehicles.

In Bangladesh, could we have a similar accident like the terrible night in London in 1952? In December 1952, five days of calm foggy weather in London increased the toxicity level in the air to such an extent that about 4000 to 8000 human lives were lost (the actual number of deaths vary depending on the source). These days, the use of other kinds of fossil fuels, hydroelectricity etc., have reduced the occurrence of industrial smog. However, incidents of photochemical smog have become quite common in cities like Los Angeles, New York, Sydney and Vancouver. This condition develops when primary pollutants (oxides of nitrogen and volatile organic compounds created from fossil fuel combustion) interact under the influence of sunlight to produce a mixture of hundreds of different and hazardous chemi-

cals known as secondary pollutants.

The first known incident of photochemical smog (also called "Los Angeles smog") struck Los Angeles in 1944. This phenomenon was characterised by reduced visibility, eye irritation, and plant damage (e.g. metallic sheen on leaves). In fact, common complaints of headaches, sneezing, coughing, nausea, fatigue, skin rashes, nose, throat and eye irritations, and difficulty concentrating may be nature's way of informing us that there is a problem. Even in the West, most medical practitioners have not been trained to relate specific illnesses or symptoms with air quality problems, so the connection between environmental cause and health effect is not easy to arrive at. However, people are beginning to realise that the accumulative effect of long-term exposure to low level pollutants in the environment depresses our immune systems, and may in fact be responsible for these vague, undeniable illnesses.

microscopic living organisms or fragments of living things). These can cause severe health problems. Bio-aerosols floating about our homes consist of viruses, bacteria, mold spores, fungi, yeast, animal and insect allergens, pieces of dead skin, microscopic dust mites and their excrement. Breathing these various elements all the time obviously puts pressure on our immune systems. Allergies, asthma, colds, and flu are some of the health effects of these pollutants. However, some health effects are not so obvious. Some fungi release poisonous mycotoxins creating adverse health effects that can mimic other illnesses. For example, in the U.S., one of ten hears of the "Sick Building Syndrome". New research suggests that these syndromes may be in part due to toxic, metabolic gases emitted by mold and fungi growing in the heating and air-conditioning ductwork. Some scientific research also shows that there may be a correlation between the amount of particulate matter in the air and shortened lifespan. Such issues need to be looked at in our cities as well.

Respecting our Past: A cynic would think that we as Bangladeshis have become so used to the callous attitude toward present life that we no longer place much value on human lives past, or future. While visiting Comilla, I had the opportunity to visit some of our historical sites in Mainamati. In 1875 during the construction of Comilla-Kalini Bazar road, that crossed the Mainamati-Lalmati hill range in the middle, a number of ruins decorated with beautiful images in terracotta plaques were discovered. Later in 1943-44, headquarters of the 14th Division of the British Army were stationed in Comilla. The military contractors discovered a large deposit of old bricks which they used for modern construction.

Some of the Vihara walls were actually marred by peoples writing of their names on the walls. What is most disturbing is the fact that the lack of care is not necessarily on the part of the locals but us those educated tourists. I was told that people could and do drive their cars inside the compound, through the opening of the walls! The next night, I got to see a visual demonstration of that shocking affair: in one of BTV's weekly drama, where a female tour director escorted a microbus full of people to various historical

sites of Bangladesh. Yes, their microbus actually went inside the Salban Vihara compound and stopped a few feet away from the actual remains of the ancient Monastery. Well, our general citizens can be called apathetic, but if the national media condones and shows such disrespect for our irreplaceable heritage, can we really blame them? It seems imperative that we come up with some guidelines to protect and maintain our historical sites at least for the sake of tourist business. Respect for Human Lives in General: As days go by we are longer surprised by the cruelty of one human being to another. We shudder to read about the hapless passenger who was thrown out of the bus by an angry conductor, and lost his life under the wheels of that same bus. Then, we go about our business secretly hoping that we do not meet such ends.

Sometimes, we go to visit those who no longer deal with the struggle. Still, I could hardly believe the surprises in store in the Banani graveyard. Within the graveyard, some one has purchased and secured this huge family graveyard where there is not a single grave in place now. Do we have any laws that permit such undertaking? How about laws regarding the proper decorum and maintenance of our public graveyards? Who implements those regulations? What about our civic and ethical sense? How can a private citizen have a "family graveyard" in such an area without seeking the permission from the relatives of every Bangladeshi who have been laid to rest there? This seems to be a stark example of intergenerational inequity at its worst. While such an instant of lack of respect seem permanent (in our sense of time), there are probably other instances of disrespect that occur more often. On one occasion, I was shocked to see a private car actually drive inside the compounds of the graveyard and pass through the cemented path where people are usually allowed only to walk. The car stopped near a grave, and an elderly woman emerged and walked over to pay her respects. One can think of only two reasons leading to such complete lack of decency. First, she might be observing "purdah". Second, she might be suffering from something like arthritis and is unable to walk the distance from the gate to the grave. If it is the first reason, she should never have been there in the first place. For the second reason, she could have paid her respects from the gate or even from the comfort of her house.

After all, regarding these issues, Islam is quite flexible for women and women don't necessarily have to be "purdah". Even if her departed relative does not care, what about all those other human beings who can no longer express their opinions? While I left the place in utter disbelief, I could only wonder if our everyday environmental problems are only a factor in another problem, which also includes an enormous disregard for moral and ethical responsibility.

Green Campaigners Save Sand Dunes from Hotel

Frederick Noronha writes from Panaji, India

Over the past decade, environmentalists in Goa have dug in their heels to block construction along the coastline which, till recently, was dotted with coconut palms. The recent case was part of their strategy of dragging to court dozens of luxury hotel projects that have allegedly violated environmental laws in Goa.

WITH a court ruling in their favour, a victory has finally come the way of green campaigners in Goa who have been trying to preserve the natural beauty of India's western coastline. For the environmentalists, based in a state which is the hub of Indian tourism, it was a shot in the arm when the Bombay High Court stayed the construction of a Rs 250 million (\$5.95 million) five-star hotel project in Goa's picturesque Nagorecm-Palolem beach. The court ordered the stay as the promoters proposed to build the hotel over sand dunes which, according to coastal building laws, can neither be flattened nor removed. Over the past decade, environmentalists in Goa have dug in their heels to block construction along the coastline which, till recently, was dotted with coconut palms. The recent case was part of their strategy of dragging to court dozens of luxury hotel projects that have allegedly violated environmental laws in Goa. A former colony of the Portuguese, Goa is India's smallest state, spanning an area of 3,700 sq km and with a population of 1.3 million. India has a fairly elaborate set of environmental laws, but

green campaigners allege they are not implemented. They claim authorities fail to bring to book law-breakers, most of whom are influential people. The hotel project, verdict on which has gone in favour of the green lobby, was owned by Diksha Holdings, a group controlled by prominent Delhi-based hotelier Lalit Suri. This is a significant case regarding violation of coastal zoning regulations," said Claude Alvarez, director of the environmental group Goa Foundation. The environmentalists pointed out to the court that the hotel was being built on sand dunes. Judges RMS Khandekar and RK Bhalta ruled that "sand dunes, which are nature's line of defence, cannot be bulldozed with money power. These geomorphic edifices have to be preserved at all costs." The court directed Diksha Holdings to file photographs of the dunes at the present, including those of the present status of construction. The site where Diksha Holdings secured permission to build its hotel was, due to the presence of sand dunes, earmarked as sensitive under

zoning rules. Initial plans submitted to the Goa government showed presence of several sand dunes where the hotel buildings were to come up. Despite this, an expert committee of the federal Ministry of Environment and Forests approved the project. The controversial approval led to protests by the environmentalists. Subsequently, the ministry acted on complaints from the green lobby and sought clarifications from the Goa government. The federal government also sent its own officer for a site inspection. "Sand dunes were indeed found on the plot," an environmentalist said. Meanwhile, in an apparent move to counter the complaint, Diksha Holdings to submit another plan, withdrawing the earlier one showing the presence of dunes. In the new plan very few sand dunes were shown, the environmentalist said. Despite the presence of dunes being indicated even in that report, the Ministry of Environment cleared the project in 1997. No mention was made about the protection of the sand dunes on the property. Last November, the Goa

Foundation obtained a report of the Goa-based National Institute of Oceanography (NIO) which clearly showed the presence of sand dunes up to 400 metres from the hotel site. Scientists who penned the report in fact also mentioned large-scale destruction of sand dunes with the use of bulldozers. Diksha Holdings claimed the report was fabricated. But, in their order, the Bombay High Court judges said Diksha Holdings' claims were ridiculous as the NIO is an institute of high repute. In fact, the judges said, the NIO had been instrumental in preparing the Coastal Zone Management Plan of Goa and the state government had relied on the institute's scientists for data on sand dunes. The hotel's promoters argued that if the project was blocked, the ensuing losses would have to be "secured" by a bank guarantee from the environmental group. The court disagreed. The green lobby is rejoicing following the verdict, claiming the stay could be a precedent in other cases involving construction on sensitive coastal areas.

— India Abroad News Service

India's Lower Caste Women Fight Inequity and Oppression

Rita Manchanda writes from New Delhi

At a convention organised by the Communist-backed All India Democratic Women's Association (AIDWA), Dalit women shared the experience of their struggles, celebrated their successes and were candid about the reverses. These were women grown strong in struggle.

AT the bottom of India's caste hierarchy is the Dalit woman belonging to the erstwhile "untouchable" castes. Comprising more than 16 per cent of the women in India, they are untouchable socially but are prime victims for rape by upper caste oppressors. However, Dalit women are now fighting back in water, land and gender justice battles, reports the Women's Feature Service. From villages and towns all over northern India, 1,000 Dalit women came to Delhi recently to speak out against the oppressive burden of untouchability which persists despite constitutional guarantees and punitive laws. At a convention organised by the Communist-backed All India Democratic Women's Association (AIDWA), Dalit women shared the experience of their struggles, celebrated their successes and were candid about the reverses. These were women grown strong in struggle. Nirjala Devi, member of a village-level council in Uttar Pradesh, drove home the persistence of untouchability with her wry description of the curious reversal which has taken place in the village tea shop. Ten years ago Dalits were given tea in earthen cups which were broken after use to prevent pollution. But with the official ban on untouchability, now cups and glasses are used and re-used. So upper castes are now insisting upon being served in earthen cups which are broken after use. Woman after woman spoke about the struggle over the right to water. Whether it was Yashoda Devi from Hajipur in Bihar or Rameshwari Devi from Sikar in Rajasthan, practically all testified to difficulties in access to water. In line with the power hierarchy in the

village, hand pumps and taps are installed in upper caste areas of each village. Only after upper caste women have taken their fill of water for drinking, have washed their utensils and clothes and bathed their animals is a Dalit woman allowed to draw water. Often she is expected to perform chores like washing clothes for upper caste women in exchange for a pot of water. And if the handpump or tap is directly touched — that is "polluted" — then it has to be repeatedly washed to clean it. How heavy this burden of fetching water still is for Dalit women was revealed in a survey undertaken by AIDWA activists in Haryana. Drawing up a simple questionnaire, Binla Devi, the AIDWA district secretary in Rohtak, interviewed women in seven districts covering 10 to 15 villages in each district in September and October 1998. The survey, however, showed that on an average a Dalit woman has to reach a distance of two kilometres to go a water source, which is usually located in an upper caste area. For a pot of water she has to wait up to three hours. In a day some six hours are spent on water chores.

The testimonies revealed that Dalit women are not only victims of the savagery of upper caste men but also of upper caste women. Upper caste women let them wash dirty utensils outside but will not let them pollute their kitchens. Many Dalit women do not divulge their caste so as to be able to get domestic work. The Delhi convention recognised the need to break this divide of women against women and to build solidarity between both groups. Non-Dalit women have to be drawn into the struggle

against untouchability. Household campaigns have to build support for "everyone's village, everyone's water" concretised in the form of fund collection for joint water supply resources for all castes. For landless Dalits, oppression means the denial of access to toilet facilities in the landless fields. In Sikar, Rajasthan, Dalit women were prevented by upper caste women armed with sticks from using a secluded spot in the landless fields. In Pehrawar village, Haryana, a Brahmin versus Dalit confrontation led to the Dalit community being denied access to the landlord's fields. As a consequence, all 15 Dalit families left the village. The confrontation arose over the rape of a Dalit girl who had gone to relieve herself in the landlord's fields. Dalit women comprise 66 per cent of all female agricultural workers. Except in West Bengal and Kerala, where Dalits have benefitted from land reform, they are mostly landless. But in Chakya Nagar near Varanasi, Uttar Pradesh, Dalit women have taken control of the land which their parents and grandparents had cleared and cultivated for the erstwhile king of Benares. Since 1984, Dalit women have stood up to the musclemen of the erstwhile king. When the former king falsely staked claim to a large portion of land, the women decided to stop giving him his customary half share of the produce of the land. Backed by local activists, they eventually forced the former king to accept a compromise. For Dalits, the most difficult struggle has been justice against sexual violence, especially as retaliation against their assertion inevitably takes

the form of public sexual violence — women being raped, stripped and paraded naked in the streets. According to AIDWA, every day three Dalit women are raped. Most cases go unreported. Even when complaints are registered, the conviction rate is very low. In Uttar Pradesh, out of 360 cases of rape of Dalit women in 1992, only 280 cases were registered and just 57 reached the courts. But where women have organised, small successes have been achieved. Subhashini Ali, a former Member of Parliament, recounted in Fatehpur in Uttar Pradesh hit the headlines because a raped Dalit woman Sonia Passi, went all the way to state capital Lucknow to file a complaint. Kaitmai villagers lived in terror of an upper caste landlord called Maula. All the able-bodied men had fled for fear of Maula and there was hardly a woman who had not been raped. Passi journeyed to Lucknow because the local police was in league with Maula. Backed by activists, the Dalit women fought off the landlord and saw to it that he was jailed for a year, two of the accused in the rape case were arrested and compensation of Rs. 50,000 (S1,190) paid to the victims. Women's unity against systems and cultures of caste apartheid and social inequality was at the core of the Delhi meet. Hearing the militant testimonies, it was evident that the question of Dalit women's rights will force itself onto the agenda of the mainstream women's movement in India.

— India Abroad News Service/WFS

Children at Risk from Global Air Pollution

Danielle Knight writes from Washington

MOST of the world's children risk disease and death because they are growing up in rapidly expanding urban areas where they regularly breathe polluted air, according to health experts. A preliminary report by the World Resources Institute and the World Health Organisation (WHO), to be officially released later this month, says that while air pollution can affect the health of all humans, regardless of age, the greatest impact is likely to be among urban children. Increased urbanisation and rapid industrialisation in developing countries is causing a virtual epidemic of diseases related to air pollution among young children, says the report. More than 80 per cent of the world's children under the age of 15 live in developing countries, and half of them live in urban areas. "Most children who live in large cities in the developing world breathe air that is the equivalent of smoking two packs of cigarettes a day," says Devra Lee Davis, an epidemiologist with the Washington-based World Resources Institute. Already, air pollution in the developing world is responsible for at least 50 million cases of chronic cough in children under five, the report says. Respiratory disease is now the leading cause of deaths in children worldwide. Children are more at risk than adults, says Davis, because their bodies are still developing. A child's lung for example, grows most rapidly in the first two years of life. They also tend to absorb pollutants more readily

than adults do and retain them in the body for longer periods of time. Because their breathing rates are substantially higher than adults, children are exposed to greater levels of pollutants, says the study. Children living in cities in developing countries face "double jeopardy" from both living in poverty and from exposures to degraded environments, says Karim Ahmed, a researcher with World Resources Institute, who worked on the study. "Many children in cities in developing countries already suffer from hunger, malnutrition and infections and do not have access to basic medical care," says Ahmed. "Air pollution only worsens their burden by aggravating diseases like bronchitis, asthma and lung disease. Children with diets deficient of necessary vitamins and minerals have weaker immune systems and are especially vulnerable to the toxic effects of air pollution, says the report. In an attempt to identify regions where children face the greatest risks of air pollution, the report ranks the countries and cities with the most degraded air combined with information on the percentage of children under the age of five in major urban areas. The study uses three measurements of air pollution caused by the burning of fossil fuels: total suspended particulates (TSPs), sulphur dioxide and nitrogen dioxide. Data used for the preliminary report relies on average annual rates of

these pollutants recorded from 1993-1995 by federal governments and WHO. TSP is a generic term used to describe a complex mixture of airborne particles caused mainly by coal-fired power plants. Sulphur dioxide emissions are caused by the burning of oil and coal. The predominant sources of nitrogen dioxide are the internal combustion engines of motor vehicles. Mexico City is ranked as the most toxic to children, in terms of combined risks from all three air pollutants. The Chinese cities of Beijing and Shanghai have the second and third most polluted air. Teheran, the capital of Iran, as well as the Indian cities of Calcutta, Bombay and Delhi and the major cities of the Philippines and Brazil, round out the top-10 centres with the worst air quality. Davis notes that other cities in Pakistan and Bangladesh may be just as polluted, but little data is available in these and some other developing countries. If ranked by average annual TSP amounts found in the air, nine out of 10 of the cities with the worst air quality were in China which relies heavily on coal-fired power plants, says the report. The maximum permissible amount of TSPs, according to WHO guidelines, is 90 micrograms per cubic litre of air. The city with the worst pollution is Lanzhou, located in the north-western province of Gansu, with more than 700 micrograms of particles per cubic litre.

The next worst city, Jilin, has a similar amount. While Taiyuan has nearly 600 micrograms of particles per cubic litre. Exhaust fumes caused by leaded gasoline pose an additional risk to children, says the study. In Mexico city, Dhaka, Bangladesh, and other cities where leaded gasoline is still used, children have blood lead levels in excess of WHO guidelines. Lead can cause brain damage, retard growth, and in extreme cases of poisoning, kill. Davis says developing countries must make the switch to renewable sources of energy like solar and wind as well as making more efficient use of their existing fossil fuel sources. Such a switch will also reduce emissions of heat-trapping greenhouse gases which, the scientists believe, cause global warming. The good news is that technologies that can both improve efficiency and reduce the threat of air pollution are available now," Davis says. The Chinese government, she says, has recognized the problem and is moving to upgrade buses, cars and trucks to cleaner standards. On Monday, Beijing's vice mayor announced that authorities will begin strictly enforcing new emission standards for automobiles. "There is an enormous opportunity here for public health if the people in positions to make these investment decisions will invest in more efficient and more renewable energy," says Davis.

— IPS/APB

Newspaper Giant Locked in Battle

Beena Sarwar writes from Lahore

PAKISTAN'S largest group of newspapers, Jang, is embroiled in a very public fight with the Nawaz Sharif government, which could lead to the closure of the 51-year-old Group and spell the end of press freedom. Recently, the government was told by the Supreme Court, which is hearing a petition by the Group, to release newspaper to the Jang Group, which has turned sharply critical of the Sharif government in recent months. Based in Sharif's hometown Lahore, the Group had filed a Constitutional Petition on the freedom of the press in the Supreme Court recently, accusing the government of "harassment and intimidation" for its critical coverage. The Group has been forced to stop the publication of several magazines, while its mass circulated newspapers, the English language "The News" and the Urdu-language "Jang" are down to a skeletal size. Also its bank accounts have been frozen by the government. For several months the Group has been "blazing away with all it has" particularly after the prime minister's announcement of the controversial Shariat Bill to Islamise law courts in Pakistan, observed a Pakistani columnist. This was a "complete departure from a long established policy of pragmatism and caution," he added. Unfortunately for the Jang its media activism also coincided with its plans to launch "Geo", a Dubai-based satellite channel for South Asia a red rag for a government that wants to control the media. "The government feels that the Jang Group is a monster in the making, with its move into the electronic media challenging the official monopoly on truth," explained "The News" senior editor Imran Aslam, who has been supervising Geo's development. In a country where only 30 per cent of the 130 million population is literate, the government wants complete control of the electronic media. The Jang Group wields a lot of influence through its publications which represent to 55 per cent of all reading material in the country. Pakistan's Information

Minister Mushahid Hussain, a former Journalist, has in turn accused the Jang Group of trying to "blackmail" the government for its refusal to allow the Group to move into the electronic media, a charge editor Aslam brushed aside. Since August last year, the Jang Group has been issued several income tax notices, and the cases have been transferred to an office under the Accountability Cell headed by ruling party Senator Saifur Rahman, who is probing the alleged financial misdeeds of Benazir Bhutto, her husband Asif Zardari and other opposition leaders. "They reopened and activated all dormant cases of the Jang Group," complained Group owner Shakeel. In October, the government served the Group with tax notices totalling over 720 million rupees (about 13 million dollars). Soon after the Group's bank accounts were frozen. "If the Jang Group has defaulted, the obvious question is, why hasn't that been allowed to be sorted out the normal way,"

asked prominent human rights activist and former editor of "The Frontier Post" Aziz Siddiqui. Matters came to a head a couple of weeks ago when the Group's newspapers published full-page protests against the government, which listed the many attempts made to bring the Group in line including demands to sack 16 senior journalists perceived as anti-government. On Jan. 28, Mir Shakeel at a dramatic news conference in Lahore played tapes of conversations, mostly between him and featuring Senator Rehman of the Accountability Cell, in which he was informed the government's wishes and demands. Caught on the wrong foot, an embarrassed Information Minister Hussain tried to wriggle out by offering to set up a neutral five-member committee to ascertain if the Jang Group is being victimised by the government. Now the fight is up before the Supreme Court, the only other institution apart from the press that the Sharif government has not been able to entirely tame.

— IPS/APB

