

TREES are the most essential bounties of nature contributing to the sustenance of life on earth. To industrial countries, trees are a treasure trove of biodiversity and greenhouse gas "sinks" that absorb (carbon dioxide) and thus keep global warming in check. To the developing nations these trees, so to say, the forests are resources ripe for exploitation: potential farmland, a free source of fuel and a store house of exotic kinds of woods that command high prices in the domestic as well as overseas markets. And these forests and plantation of trees must be continued to maintain ecological balance of this planet earth. Without any contradiction, the world needs a lot of them to store the carbon produced by the growing population that triumphs on industrialisation. Forests work as carbon dumps: trees extract carbon dioxide from the atmosphere, emit oxygen and store carbon in the trunks, leaves and roots. These utilities call for preserving the forests that are still there after massive logging by human beings and restore those that have been destroyed.

Unsurprisingly, in Bangladesh trees are being destroyed the old fashioned way. They are cut down for fuel, in the houses and brick fields and to meet the growing needs of cropland for the burgeoning population. But other than this logging there is another deadly culprit at work that is denuding the forest wealth in the Sundarbans, Cox's Bazar, Sylhet, Mymensingh and in parts of the northern Bangladesh much beyond our knowledge. The disease called "the dying forest syndrome" strikes selectively but with deadly effect. The onset of the disease starts with the dark green branches hanging limply. Between five weeks and three years later, the branches are tinged with yellow and then brown. The weakened tree soon drops its needles and eventually stops growing new ones. It becomes bald at the top and appears stunted, spreading its highest branches outward and upward like a stark's nest. Roots and trunks begin to twist and shrink. Finally drought, insects and parasites finish off the weakened plant. In the end, it stands like a thin stick stretching toward the sky. In this way, our country and other parts of the world where this "dying forest syndrome" has started working, face one of the most environmental catastrophes of modern times.

The global scenario of this syndrome unfolds an alarming picture. In France, almost 5,000 hectares (one hectare equals 2.47 acres) of woodland have been seriously damaged and other 30,000 are showing signs of deterioration. In Germany, 34 per cent of its 7.4 million hectares of forest appeared to be visibly damaged. Reports have it that in the south-western part of Germany, home of the black forest, some 75 per cent of the trees have been damaged. In eastern Germany where till before the unification, officials were reluctant to provide data on the extent of the disease, an estimated 86 per cent of the country's 3 million hectares of woodland have been affected.

The epidemic of dying trees which has struck the forest resources of the world quite



mercilessly still seems to be quite mysterious. This new plague hits young saplings as well as 120-year-old trees. Extensive analysis for the epidemic range from a cyclic change in the environment to a baffling form of tree "cancer". But the most convincing evidence points to air pollution, specifically sulphur dioxide and oxides of nitrogen which are spewed into the air by the ton from electrical generating, industrial boilers, smelting plants and automobiles.

One school of thought points out that by itself, sulphur dioxide can sap the vitality of trees, so can oxides of nitrogen. But the real problem seems to begin when the two gases work in combination with each other in the atmosphere. Hurling into the air by tall smokestacks, the substances mix with water vapour to form sulphuric acid and nitric acid and in presence of sunlight turn into oxidants such as ozone. When these new chemical mixtures fall to earth as snow or rain or float into forests as wind or fog, they can be far more lethal than the ingredients that went into them. According to experts, the mixing of sulphur dioxide and nitrogen oxides is not 'one plus one equals two', rather it is 'one plus one equals three'.

Acid rain, in the form of

dry-particles — snow and fog — attacks a tree on all fronts. Air-borne pollution settles first on the highest tree-tops, acting as a natural windbreak. Acid precipitation filters down to the soil, eats away at the root system and eventually leaches out key nutrients, such as calcium and potassium and mobilises toxic metals like aluminium. Once on leaf or needle, acid rain disrupts the operation of the "stomata" the tiny openings that permit a tree to "breathe". The process of photosynthesis is thrown off balance and subtle changes take place in the internal chemistry of the tree that result in discoloration and premature aging. Finally, acid rain washes away vital nutrients from the leaves and needles so that the tree slowly starves to death, its respiratory, circulatory and "digestive" systems crippled. When death comes, it is often due to natural causes like insects, high winds and drought. Much like an AIDS victim whose immune system has broken down, the ailing tree is left defenceless against the ravages of nature.

Scientists are offering much more plausible explanation. They are advancing the argument that it is sun-infused NOx or ozone, not acid rain that paralyses a tree's vital functions making it vulnerable



Living forests provide livelihood

DYING FORESTS

The Syndrome Must be Arrested

by Md Asadullah Khan



to poisoning or loss of nutrients. "Acid rain is partially responsible," says Adrian Meyer of the Swiss Federal Forest Office in Bern. "But in high altitude environments where the sunshine is more intense, ozone is a prime tree killer."

Most of the pollution that kills these trees is invariably associated with the industrialised country's energy profile which includes industrialised country's heavy reliance on sulphur-rich fossil fuels like coal, relatively little hydroelectric power and an uncertain supply of low-sulphur oil. The deadliest culprit that causes the most disastrous situation is the brown coal mostly available which when burned, emits heavy amounts of sulphur dioxide. Statistics available confirm that eastern Germany (Pop. 16.7 million) spews out 95.6 tons of sulphur dioxide per square mile every year compared with 40.5 tons per square mile in western Germany (Pop. 61.2 million) and only 6.6 tons in the US (Pop. 238.4 million).

Understandably, what makes tracking down the cause of toxic poisoning so frustratingly difficult is the caprice of the wind. Smokestacks built these days which are rising more than 1200ft may spare the surrounding countryside. But they can emit pollutants high into the air where they travel along wind-formed "sky ways" that can carry them thousands of miles apart even beyond the country that produced them. That answers the dilemma of the non-industrialised countries who are not sinners but have to pay a heavy price for other's faults. Interestingly, the most dramatic example of "pollution drift" comes from Great Britain which ranks as the largest generator of sulphur dioxide in western Europe. A report issued by the Environment Committee of House of Commons in the late 1990 estimates that 28 per cent of the 5.1 million tons of sulphur dioxide belched from British smokestacks each year are wind-borne to other countries, principally in Scandinavia.

According to "Friends of the Earth", another international

environmental group, British emissions account for 14 per cent of the pollution in Sweden, and 7 per cent in both Norway and western Germany. Consequently, the resultant downpour of acid rain has already caused 15 per cent decline in timber growth in these areas. Global figure on the emission of pollution and the extinction of forest wealth reveals that there are countries which have only a negligible number of factories that emit toxic chemicals but it could nevertheless suffer from the pollution. Only 23 per cent of sulphur dioxide deposited in the Netherlands is home grown, but 26 per cent of it blows over from western Germany, where smokestacks tend to be taller. Likewise, Italy gets more pollution than it gives. Some 2 million tons of sulphur dioxide drift into the country from Switzerland, Austria and France.

Shockingly, the sinners like Britain have resisted putting teeth into pollution control regulation since they must bear the costs but enjoy few of the benefits. Encouragingly, western Germany long opposed to tough pollution controls, has changed its stance. The country is now leading the charge for stricter emission standards. So great is the concern there that western Germans mentioned trees more often than the arms race as a problem of importance to them. The dying forest has had a greater impact on Germans than almost any other issue. They look at the forests as being almost more important than their own health. That leads us to think how oblivious and unconcerned we are about our dying forest resources. Any country for its ecological balance needs at least 25 per cent forest resources. But in

our country at the moment, pollution hazard coupled with human assault have brought forest resources down to a shockingly 9 per cent mark.

The country's present plight and lamentable depletion of the forest resources accounts for the drought and climatic variations prevalent in the country. For any country heading for industrialisation, woods are to be considered as an alternative world to industry. The fragrance of flowers has inspired literatures, poets and vocalists in many ways. All in the woods. Forests bring about a soothing inspiration to people in the world tormented by afflictions, conflicts and hatred. The city planners in our country, in their bid to create unplanned housing in the city have often forgotten the age-old proverb: "The city was seen as something made by man and the forest as some-

thing made by God."

Shockingly true, lack of ecological awareness in the country has significantly contributed to extinction of trees, bringing in its wake unusual flooding, inundation of coastal belts, and crop-losses. On the other hand, the spectre of devastated woodland triggers spate of pollution-related illnesses like respiratory tract infections, malignant tumours, and congenital deformities in the country. What the country needs now is a team of "Nature Protection Group" who must meticulously document the effects of pollution on the country, air, water and health. In the country, as mentioned earlier, other than human assault, trees are dying mostly due to pollution effect. To arrest this effect, governments in many countries like Czechoslovakia, Hungary and western Germany have started helicopter spraying of contaminated forests with lime to reduce acidity of the soil.

Cars and coal burning utilities and factories are responsible for 86 per cent of the man-made sulphur dioxide in the atmosphere which cause extinction of trees. In many countries, to persuade citizens to purchase cleaner cars, the government has developed a complex tax-incentive plan designed to offset the cost of catalytic converters that are being increasingly used in western Germany and others are following the suit.

We can never encourage technological progress that only accelerates means of upsetting nature's equilibrium — that intricate set of biological and chemical interaction that make up the web of life. Right from the dawn of "Industrial Revolution" smokestacks have disgorged noxious gases in to the atmosphere, factories have dumped toxic wastes in to rivers and streams, forests have been denuded, lakes poisoned with pesticides, underground aquifers pumped dry. It is high time we take into account the possible consequences of this profligacy.

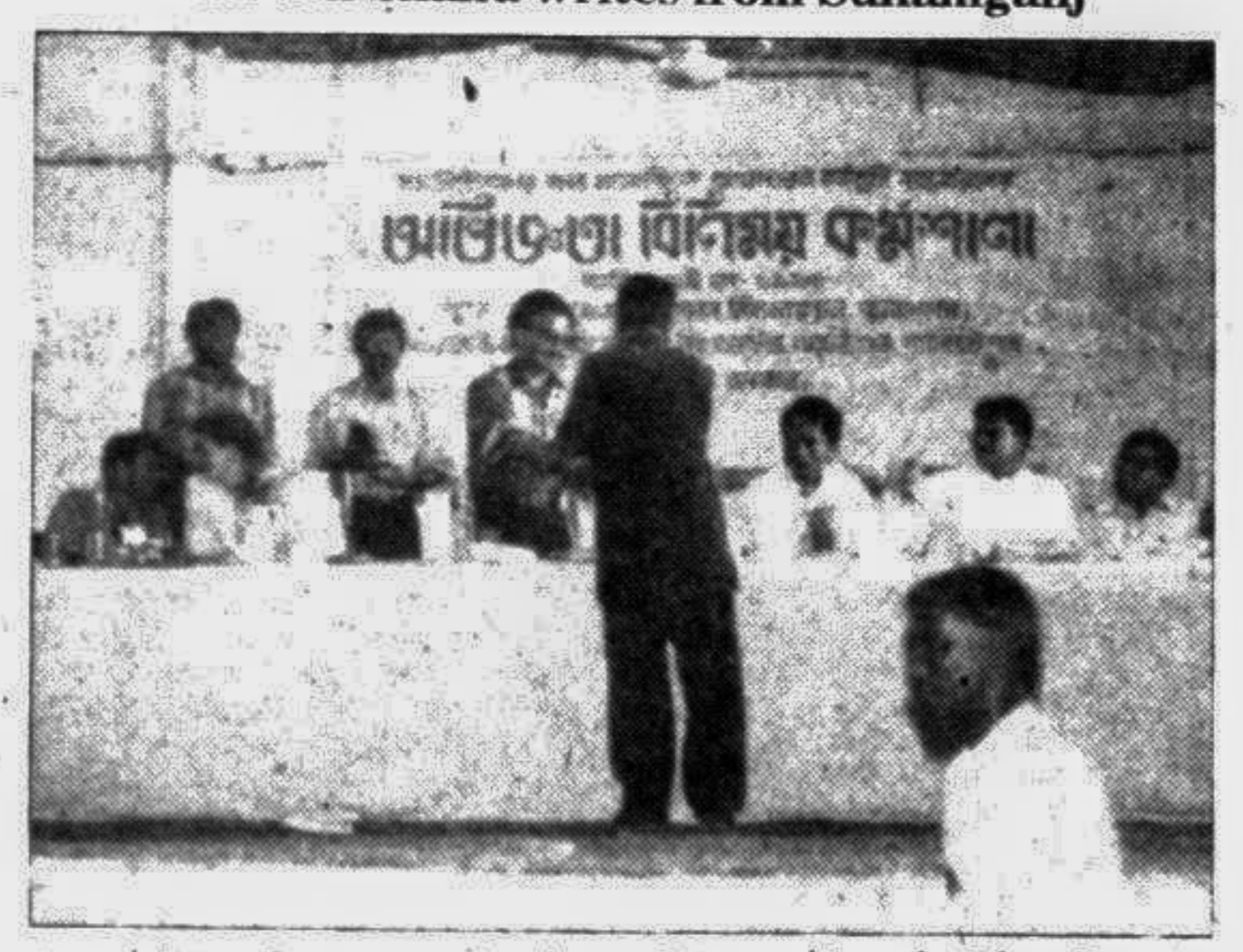
Towards a Healthy Habit

Sunamganj Villages Now Have Sanitary Latrines

Onirvan Shahu writes from Sunamganj

IN three thanas of Sunamganj district, namely — Chhatrak, Dural and Shalla — 24,775 families out of total 25,468, will now be able to use sanitary latrines. This was disclosed at an "experience-exchange workshop" organised by NGO Forum for Drinking Water Supply and Sanitation Sylhet Zone on completion of their one-year project "Implementation of Social Movement for Sanitation Programme" at Sunamganj on May 9.

One year before, the number of sanitary latrines for the same number of families was only 2,446. The Director of NGO Forum for Drinking Water Supply and Sanitation Mr. SMA Rashid, who was presiding over the workshop, said it was not their main objective to only help the people of this area in constructing sanitary latrines, but to motivate them to construct such latrines themselves and change their habit. He said, the movement virtually did not end with the



completion of one year implementation programme, rather people at all tiers of society should try to sustain the success achieved. The Deputy Commissioner of Sunamganj Mr. Iqbal Hossain Khan and Programme Officer of Swiss

Development Corporation Ms Suzan Muller who attended the concluding ceremony as special guests, praised the effort towards healthy habit.

The Forum workers attending the workshop informed that the implementation of the programme initially seemed very hard but with the cooperation of the Union Parishad chairman, TNOs, imams and priests, and representatives of various organisations and, above all, the conscious local people almost a 100 per cent success could be achieved. Within the one year, not a single person in the three thanas has died of enteric diseases like diarrhoea.

At the conclusion of the workshop, the Forum Director Mr. SMA Rashid distributed crest and certificate among the workers. This is believed to work as incentive, and as such it is expected that more such programmes towards imbibing healthy habits in the people will not suffer any lack of enthusiasm.

The Daily Star Entertainment Guide

Saturday 11th May
(All programmes are in local time. We recommend programmes printed in bold. There may be changes in the programme.)

BTV
9:00pm Opening Announcement
9:10pm Recitation from the Quran
9:15pm Movie of the Week: 4:00 News in Bangla 5:00 News in Bangla 5:25 Bantash: Folk Songs 6:00 News in Bangla 6:05 Angkor 6:30 Major Movie 7:00 News in English 8:00 News in Bangla 8:30 Movie-Monster: Programme Based on Agricultural Development 9:00 Abhim: 10:00 News in English 10:30 Drama Series: Dynasty 11:30 News in Bangla 11:35 Tomorrow's programme summary 11:40 Close down

BBC
6:00am BBC World News 6:20 Britain in View 7:00 BBC World News 7:10 Newsnight 8:00 BBC World News 8:20 Window On Europe 9:00 BBC World News 9:05 Correspondent 10:00 BBC World News 10:20 Face To Face 11:00 BBC World News 11:20 Window On Europe 12:00am BBC World News 12:05

CHANNEL V
7:00am Asian Top 20 VJ News 9:00 Big Bang Weekend VJ News 10:30 News Vision 1:00 The Ride VJ Trey 2:00 House of Noise VJ Trey 3:00 Rewind VJ Sophia 3:30 The Vibe Weekend Featuring Roger Taylor & Brian May 5:30 VJ's 6:00pm Billboard

STAR PLUS
6:30am Transformers 7:00 Dungeons and Dragons 7:30 Around the World in 80 Days 8:00 Count Duckula 8:30 Silver Rider & Te Star Sheriffs 9:00 Capital Critters 9:30 Zoo Life With Jack Hanna 10:00 Ratts & Dog 10:30 Voyage to the Bottom of the Sea 11:30 The Wild Wild West 12:30 Movie: "Broken Lace" 2:30 Movie Classics: "The Third Man" 4:30 Super Bloopers & New Practical Jokes 5:30 Movie Television 6:00pm Fantasy Island 7:00 The Wonder Years 7:30 The Addams Family 8:00 The Simpsons 9:30 Baywatch 9:30 Star Trek: The Next Generation 10:30 L.A. Law 11:30 Code 3 12:00am COPS 12:30 Mystery Movies: "Ruth Rendell Strawberry Tree" 2:30 Movie: Double Identity 4:30 Movie TV 5:00 The Sullivan 5:30 Antros Target

STAR Sports
7:00am High 5 III 7:30 Squash Super Series Looks British Open Cardiff Hits 8:30 Spanish Football League HIL 9:00 NBA Inside Stuff 10:00 The European Tour Peugeot Open De Espana Day 2 12:30 Australian Football League Highlights 1:30 US PGA Tour 1996 Shell Houston Open HIL 2:30 Trans World Sport 3:30 World Wrestling Federation Action Zone 4:30 Asian Football League Hits 7:30 The Asian Football Show 8:30 Live The European Tour Peugeot Open De Espana Day 9:00 1995 World's Strongest Man 10:00 World Wrestling Federation Action Zone 11:00 LIVE NBA Playoffs Game 3 2nd Round 4:00 Australian Football League Highlights 5:00 1996 World Speed Skating Champs

STAR MOVIES
7:30am Comedy: Carry On Camping 18 (Arabic Subtitles) 9:30 Family: Little Marines 12 (Arabic Subtitles) 11:30 Comedy: The Monster Club 12 (Hindi Subtitles) 1:30 Family: The Adventures Of Pinocchio G (Hindi Subtitles) 3:30 Film Club: Le Quai De Brumes PG (English Subtitles) 5:30 Comedy Movie Movie 12 (Hindi Subtitles) 7:30 Family: High Lonesome 127 (Hindi Subtitles) 9:00 Bollywood 9:30 Leading

PTV
8:00am Tilted Air Tar jama/Handi/Naat 8:20 Cartoon 9:30 Khabra 9:45 Visitors Book

SONY ET
8:30am Kuch Dil Ne Kaha 9:00 Tasdon Ki Baar 9:30 Cine Maitree-Hindi Feature Film 12:30 Jagr 1:00 Siddhi 1:30 Kaash 2:00 Sunday Ki Sunday 2:30 The Nirlep Raasi Show 3:00 Khoya Khoya Chand 3:30 Movie Mania 4:30 Humse Barker Gang 5:00 Rangela Re 5:30 Mere Massage Meri Goet 6:00 Aana 6:30 Video CD Premier 7:00 Good Shot 7:30 Jan Br Hanuman 8:00 Surf Wheel Of Fortune 8:30 Cine Prime Hindi Feature Film 11:30 Judugar 10:35 TBA 11:55 The Flash Point

DD 7
8:10am Shastriy Sangeet 8:20 Binodan 8:30 Gaan Sudhu Gaan 9:00 Adhunik Gaan 9:30 Darshaker Darbare 10:00 Light Music 10:15 Rajanikantar Gaan 10:30 ETV Prog. 1:00 Aparadhi 1:30 Gaan Sudhu Gaan 2:00 Chalachitra Rabindranath 2:25 Parthasa 3:30 Bengali Tele Play Show 5:05 Dhitang Dhitang 6:30 News 6:00 Ankur 6:30 Western Classical Music 7:00 Saptahki 7:30 Bangla Sambad 8:00 Chor Chor 8:25 Uru Katu

SEE CINEMA
8:30 Hit Hai Fit Hai 9:00 Tarana 9:30 Hmii Si Baat 12:15 Boxoffice 12:45 Khalifa 3:30 Hollywood To Bollywood 4:00 Bhai Ho To Aise 7:00 Tarana 7:30 Hit Hai Fit Hai 8:00 Coming Soon 8:30 Break Ke Baat 8:00 Aaj Anadi Kal Khalid 9:30 Songs 10:00 Barsaat Ki Ek Raat 12:45 Zakheem Aurat

EL TV
8:30am Ched Chad 8:13 Music

TOM AND JERRY
James Bond BY IAN FLEMING DRAWING BY MORAK
C'MON, SHAKE IT UP, HAZARD — I'LL SHOW YOU THE LAYOUT BEFORE THE SHAREHOLDERS GET HERE FOR THE MEETING
MY CAR!
YOUR TYRE WENT FLAT, BUT DON'T WORRY — AROUND HERE, WE CAN TAKE CARE OF EVERYTHING!

TEE-HEE! THERE'S SOMETHING TO BE SAID FOR GARLIC-SCENTED BUBBLE BATH. AFTER ALL!
POOH!
GREAT LITTLE SCAVENGERS — THEY SOLVE A LOT OF DISPOSAL PROBLEMS!



Tol Mol Ke Bol on Zee TV at 1:00 PM today