

Bangladeshi Experts See US Environmental Protection

OFFICIALS responsible for environmental protection in Bangladesh have completed a journey of eight US states where much of the latest technology working for a cleaner environment is employed. They agree that they may be able to implement some of the concepts in use here.

"I am sure that we can implement things that we learned here," A M Mubash-Shar, director of Dhaka's Chamber of Commerce and Industry and an official of the Ennem Rubber Products Ltd, said in a USA interview at the conclusion of the tour.

He and three other Bangladeshi officials were participating in a month-long US Information Agency-sponsored tour examining how the United States handles environmental problems.

Beginning in New York City, the group met with environmental scientists and with officials of the United Nations committee working with the role of business, government and non-governmental organizations in solving global environmental problems.

From New York, the group traveled south to Atlanta, Georgia, to see a sewage treatment plant, covering more than 1,600 hectares, which converts solid waste into fertilizer, thus becoming a fully self-sustaining enterprise.

In Mobile, Alabama, on the

gulf of Mexico, the group went to the Marine Environmental Sciences Consortium, where they saw the efforts being made to ensure that waters in the Gulf remain pure, and marine-based businesses thrive.

At the Scott Paper Company, they were able to observe an environmentally sensitive corporation's treatment of both timberland and paper production.

The group then flew to Des Moines, Iowa, where they visited the Soil Conservation Service, a

also went to Pacific Northwest Laboratories at the Battelle Memorial Institute, a giant scientific institute employing a staff of 8,000 scientists, engineers, and other specialists dealing annually with some 4,900 projects.

On the West Coast, the group visited Riverside, California, where South Coast Air Quality Management District is based. Possibly the country's premier air pollution control organization, it deals with air pollution problems such as auto

noted that the group's travels gave them the opportunity to see all parts of the country. Everywhere, he said, he had found the US environmental protection systems "very stringent," and "the people understand that it is for their own good."

Hossain said he found that "no matter how costly it is, the people of the United States do participate in resolving environmental issues." This, he concluded, may be due to the fact that American children are taught in schools at a very

And at the college level, he added, educators teach about such issues in a "much different way" — about ecology, forestry, fisheries, water sectors, minerals, and other such subjects, "quite in depth, and they have a very good educational system and technology and equipment available."

He also noted that the system of forestry preservation — both through tree harvesting and reforestation, is done in a "much more economical way, a planned way, so the resources are not depleted nor ecologically unbalanced."

Sheikh Harunur Rashid, Member of Parliament (Awami League) and of the Parliament's Standing Committee on the Ministry of Environment and Forestry, said he was impressed with the progress made against environmental harm in the United States. He said he would like to try to implement in Bangladesh a number of concepts learned in the United States.

Another Member of Parliament and member of the Standing Committee of Environment and Forestry, Bani Ashraf, agreed, saying she would especially like to enable Bangladesh to use similar anti-pollution measures. But she noted that such highly technological measures are costly and difficult to introduce.

— USIS

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part of the US Department of Agriculture's network that works with farmers to address soil erosion, soil quality, toxic contamination of land or water, and farming methods that affect the fertility of the land.

In northern Wisconsin, the group visited a small college whose curriculum concentrates heavily on environmental issues, and visited nearby Lake Superior and the Chequamegon National Forest.

Travelling to Spokane, Washington, the visitors met with Chamber of Commerce officials to gain an understanding of how the Chamber can influence corporations to consider environmental factors.

The Bangladeshi officials

emissions, industrial particulates, even forest fire smoke.

Finally, the group flew to Washington, DC, where they had discussions with officials at the Department of State and at the Environmental Protection Agency, the federal government's manager and overseer of the environment.

Mubash-Shar said he had appreciated being able to gain a "practical understanding from those who are involved in environmental issues." While some concepts may be "too expensive, or some are redundant," he said, "the group will elect those concepts which are the most useful for Bangladesh."

Managing Director of Enviro-care Ltd, Syed Akhter Hossain,

young age about how to treat their environment.

"We have seen (an elementary school), and I am quite impressed, because I found that the children are taught in a most practical way. They have been taken into the forest, and taught in a much easier, much more palatable way than the bookish way of the classroom," Hossain explained.

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Tourists Squirt Soft Drinks on Rock Paintings

by Brian-Bethuel Katjimune

FOR the last two years tourism in Namibia has grown by 5-10 per cent. Welcome as this may be, the environment and the wildlife look like suffering as a result.

Conservationists warn that giving large numbers of tourists uncontrolled access to environmentally sensitive areas is an open invitation to disaster. They are urging the government to introduce tangible measures to minimise the ill-effects.

Of particular concern is the often indiscriminate driving of vehicles into ecologically fragile areas, such as a stretch of desert-like land along the west coast that contains microscopic plant and animal life found nowhere else.

The plants are ideally adapted to the arid conditions in the area, drawing moisture from coastal fog in order to survive. If disturbed it could take decades to re-establish them. Vehicle tracks are often seen crisscrossing this sensitive area, destroying the plants and leaving the area susceptible to soil erosion.

Some tourists have been known to spray rare rock paintings with soft drinks in order to make images more sharply defined for taking photographs. Others have hacked pieces off meteorite fragments to take as souvenirs from a display at a farm in the Grootfontein district.

Litter is another major problem arising from mass tourism. The rubbish from today's visitors may well discourage tomorrow's potential

tourists from visiting the country.

The Director of the Save the Rhino Trust, Sharon Montgomery, says uncontrolled numbers of tourists can disturb endangered species from

breeding and scare animals from water-holes, forcing them to walk long distances in search of water.

She warned: "Although tourists are always welcome to visit these sensitive areas, they

should know that if we seriously have to conserve our environment, they should change their attitudes and be environmentally friendly. The moment they spoil the beauty of the environment, it becomes less attractive to future visitors."

She wants the government to control tourists, especially in the semi-arid areas. Chris Brown, head of the planning unit in the Ministry of Wildlife, Tourism and Nature Conservation, called tourism "an equal partner in Namibia's economic development."

He said that the absence of legislation meant that in the past no proper controlling measures for tourists had been introduced. He added: "A draft policy document which will set up a mechanism to protect the natural resources and ensure that the conservation of our environment is in place and about to become law."

According to Brown, government tourism policy also contains guidelines on how people who live in areas visited by tourists can benefit from the revenue generated. He pointed out that uncontrolled tourism not only damaged vegetation and increased soil erosion, but sometimes also invaded residents' privacy.

He added: "These visitors sometimes even go to the extent of driving through the (traditional) homesteads of residents and showing disrespect for their customs as they are unaware of the cultural norms."

Brown said his department will ensure that once the legislation has been passed, there will be employment opportunities for rural residents, who may be employed as tourist guides.

Director of Tourism Hennie Fourie said that thus far negative effects on the environment as a result of uncontrolled tourism have not been that serious, although some instances have been reported in the Spitzkopje and Twyfelfontein areas.

He added: "We can even triple the present number of tourists without facing any problem, provided that proper control measures are put in place. As the number increases, we will have to be increasingly careful."

The Director of SWA Safaris, Wilfried Sientefol, says that Namibia's environment and wildlife are not at present heavily affected by the number of tourists, but the government should ensure that all areas are controlled by tourist guides.

The tourist industry makes a major contribution to the Namibian economy. It generated R360 million in 1991, of which R123 million went into state coffers. In 1992 the figure rose to R465 million, with R155 million going to the government. This year revenue is expected to reach R500 million. — Gemini News

KATJIMUNE is a Namibian journalist who has been reporting on socio-political and economic developments in Namibia for several years.



Tourists are still rare in many parts of Namibia. These women walking home to their village in Kaokoland after visiting historical sites have probably never encountered visitors from abroad.

Life and Death in the Mangrove

MANGROVE Forests are made up of diverse tree species which thrive in upper tidal zones along flat, sheltered tropical shores. The trees have evolved in the harsh environment of brackish water and changing tides. Their special adaptive aerial roots and salt filtering tap roots have established rich and complex ecosystems. Besides protecting vast areas of coastline from erosion, they are vital to inshore fisheries, wood products industries and wildlife.

appearance along Asia's coasts in the 1970s, beginning their rapid expansion in China, Taiwan and South Korea. The annual growth rate of prawn production averages 25 %, mainly in Asia which produces 75 % of the world's prawns. Many of these early prawn industries have by now failed or are in their final stages. The ponds are largely abandoned, the once plentiful mangrove devastated.

treatment additives and equipment to small farm owners.

Although the prawn industry promotes itself as a boon to local economies, it benefits mainly the wealthy investors. The plight of coastal villagers was well expressed by an Ecuadorian fisherman last year while being interviewed for a television documentary.

"We must look for ways to defend ourselves and make our voices heard," he asserted. "We're sick and tired of the destruction of the mangroves... The second biggest prawn farm in this country is just 100 metres from here. There has been large investment, but we haven't been taken into account. We haven't benefited from it... Ours is a fishing zone, but in five to six years, with the mangrove destruction, we'll end up with nothing."

Thailand suffers similarly. The east coast of the southern peninsula, including both Songkhla and Nakhon Si Thammarat where the prawn industry was established in 1986, is a virtual wasteland.

Now the industry is attempting to establish itself on the west coast which still contains extensive mangrove forests and rich fisheries. For powerful agribusinesses and aquaculture industries, it is "prawn business as usual". The industry provides a tremendous boost in export earnings. Over 20 billion baht in foreign exchange earnings has been generated since the 1980s. Nearly 160,000 tons of prawns were cultured in Thailand last year alone, 90 % of which were exported, mainly to Japan and the United States.

Today, around 500,000 rai of land are covered by prawn farms. Many of these have been closed because of pollution. In the last 30 years Thailand's total area of mangrove forests has decreased from over 2.1 million rai to 1.12 million rai. A large part of this loss is attributable to expansion of the prawn industry. — USIS still goes unchecked.

The ramifications of the prawn industry go far beyond the immediate and noticeable damage to coastal environments. Besides the obvious loss of the mangrove forests and their related coastal ecologies, there follows what might be termed an "ethnocide" of once sustainable coastal communities.

Worldwide efforts are needed to restrain the profit-makers. Strict regulations protecting the mangroves and restricting the prawn industry are essential. But reducing world consumption of the black tiger prawn is also necessary.

Unless we take action, the "rainforests of the sea" will continue to disappear, coastal species will become extinct, and coastal communities will suffer or vanish. As one village headman emotionally stated, "the mangroves are the roots of the sea. Without the mangroves, the sea will have no meaning." We must ask ourselves, is this worth the luxury of putting black tiger prawn on our plates?

The industry plans to expand its operations in Third World countries as well as dramatically increase exports next year — an 80 % increase is planned in the United States alone. The Mangrove Action Project has been formed because of these mounting concerns.

Courtesy: Tempo

In the mangrove forest, life abounds. One can find shorebirds, crab-eating monkeys, fishing cats and mud-skipper fish that skim across the swamp mud to make their way between water holes at low tide. The mangroves are the ocean's



Mangrove forest in Trang Province, Thailand.

equivalent of the rainforest, balancing coastal ecosystems worldwide. Living amongst these once vast areas of coastal forests, villagers pass on their traditional cultures to their children — skills and wisdom relating to the sea, the land and, of course, the mangrove forests.

But time is running out for the mangroves and the people who live among them. Because of their proximity to the sea's brackish waters and their relatively level terrain, the mangrove forests are ideal locations for establishment of black tiger prawn aquaculture. They are being cleared, and the once self-sustaining waters and lands poisoned.

"I know I have this sin on my conscience I may never be able to erase..." a small prawn farmer on the east coast of Thailand admitted. He had acted against better judgement and taken a chance to make a quick profit at the cost of his neighbour's rented land. The 20-rai prawn farm failed, and the land is ruined.

The story was the same among villagers on the Andaman Sea coasts. The fever which had struck the east coast was upon them, yet they were fearful to act. Others who had spoken out had felt the heavy hand of "influential people". Billions of baht are at stake.

The land grabbing is backed by certain policy makers who share the money gained from illicit land deals and a passing fancy: the boom and bust of black tiger prawn aquaculture. Prawn farms made their first

water treatments, must be pumped out. The problem is, where to place pond effluents without contaminating surrounding land, ground waters, and the coast itself?

No adequate solution has been found, and problems with pond effluents are mounting. In addition, salinization is poisoning the ground water, as well as the once productive farmlands. Waste water is adversely affecting the coastal ecology, killing off the sea life and destroying vital fisheries. In time the ponds poison themselves as the seawater used to recharge them becomes contaminated weakening prawn production; until finally the ponds are closed.

Besides the very obvious degradation of coastal ecosystems, aquacultural production has other grave consequences. Overuse of freshwater for the ponds can cause shortages of drinking water, ruin of nearby croplands, land subsidence and salinization of groundwater supplies. Mangrove forests offer a wealth of wood products, including charcoal, paper, building materials, firewood and rayon.

However, the industry converts this once public, multiple-function resource into a private, single-purpose production unit.

Even now, the prawn industry is moving towards new coasts in Burma, Cambodia, Vietnam, Yemen and Iran. Business continues to make big profits from newly established farms. Besides the initial earnings from prawn production, there are profits to be made from selling prawn feed, water

Tourism Threatens World Heritage Site

Damien Lewis writes from Cairns, Australia

"THAT'S where I come from," said Ken, pointing out over a rolling expanse of lush rainforest to a far-off valley with smoke rising from the sugar cane mills, and roofs glinting in the sun. "You can just about see my house from here."

Ken is a "rainforest and wildlife" guide, running tours for Wild Track Safaris out of Cairns in Queensland, Northern Australia.

I was one of his eager retinue on a trip into the Wet Tropics to visit an area of pristine rainforest, hoping to find eco-tourism — wildlife and nature-based tourism, that doesn't harm the environment.

Ken, who was born and brought up in the region, had the tour party engaged in easy conversation as the Toyota Landcruiser drove on. At the Lamb Range, rising to about 3,000 feet, one could view some of Australia's most spectacular, yet least known rainforest.

As the Toyota snaked, first on tarmac and then perilous dirt track higher into the wildlands, dry eucalypt forest gave way to wetter and wetter terrain, until we eventually found ourselves in the depths of a magnificent, cathedral-like rainforest.

The shadowy understory was split by the silver trunks of the gums, whilst huge tree ferns and climbing palms lined the track, and mosses cascaded over enormous granite boulders. Some even had huge trees growing out of them — it was hard to see how they survived rooted as they were on bare rock.

"These are granite intrusions — volcanic rocks pushed up to

the earth's surface" said Ken. "They're very very old, and so too is the rainforest here. Likewise, it would take many thousands of years to recover if ever it were destroyed."

It's hard to imagine rainforest like this in Australia, the land of the sun baked outback. But this is a unique place, home to tree-climbing kangaroos, large flightless birds called cassowaries, green white and striped possums, and all manner of plants.

The Wet Tropics are one of



- Richer collection of fauna in Australia
- 1,400 species of plant, 450 found nowhere else
- 35 million years of evolution
- Only surviving example of the aboriginal lifestyle

less than a hundred places to achieve the distinction of being a World Heritage Site, placing it in the same league as the Grand Canyon, Mount Everest and the nearby Barrier Reef. By rights, it should be receiving the highest level of protection — commensurate with its worth.

But as we wound our way through the forest, we noticed huge carcasses of felled trees. Ken said that the area was still under the control of the Department of Forestry, for whom the trees seem to be just so much timber, and have over-logged much of the area.

Said Ken: "The whole area is supposedly World Heritage, but this forest is still under the Department of Forestry. They'll soon hand it over to National Parks. I guess, but much of the rainforest is on private land, and that can still be cleared."

A little resignedly Ken pointed out where "Forestry Land" signs by the track side were peppered with holes. "Someone's been up here shooting," he said. "They like to get the signs if nothing else. It's one of our biggest bills, replacing shot up road signs. Those who missed out on Vietnam. I grieve."

Like other locals Ken said he did not understand fully what World Heritage listing meant. In a rich country like Australia the rainforest is still being cleared, gun totting red necks are tearing around shooting anything that moves, and even the World Heritage listing is having questionable effect.

And, as our progressed, one

began to wonder about the impact of supposedly benign activities such as so-called eco-tourism.

When asked whether any controls were placed on him by tour operators, Ken said: "We need a permit from Forests to come here, and we're supposed to use only 30 bulbs and red light for night-time animal view-

ing — though my red light's not working at the moment. But other than that there aren't really any controls."

Eco-tourism in Cairns seemed to imply purely tourism based upon nature's resources, with few in-built safeguards, or kick-backs for the environment such as improved conservation, written in.

Radioactive Fuel in Ships Threatens Central American Safety

by Central America Report, Guatemala

A recent Greenpeace report charges that ships owned by Pacific Nuclear Transport Limited (PNTL) are carrying large amounts of highly radioactive spent nuclear fuel through the Panama Canal from Japanese nuclear reactors, bound for reprocessing in Great Britain and France.

According to Greenpeace, every PNTL ship that passes through the canal holds between 60 and 90 tons of this spent nuclear waste. 45% more than the amount released in the 1986 Chernobyl disaster. It is estimated that at least 11 ships transported this dangerous cargo through the canal in 1989.

In 1990, Greenpeace asked the US and Panamanian governments to prohibit such transport, pointing out that these ships have already had three accidents. The US has had its own embargo on such shipments since 1989.

Greenpeace also charges that PNTL does not pay a surcharge for using the canal or carry insurance to compensate Panama in case of an accident. It has been suggested that an accident in the canal by one of these ships would have such disastrous repercussions that it would render the country uninhabitable and the canal unusable for hundreds of years and cause widespread ecological damage in Colombia,

Venezuela and all of Central America.

Officials from the environmental organisation warn that there will be a significant increase in the transshipment of these deadly materials, as reprocessed by products such as plutonium begin to make their way back from Europe to Japan via the canal. Experts claim

Economic Community (EEC) and more than 60 former European colonies. Another proposal, reported in February by the Belize Audubon Society, to burn industrial waste to produce energy, was also rejected.

In El Salvador, the government rejected a proposal from the Ecology Corporation of

ual ash. The interested intermediaries argue against the toxicity of burning tyres, which Greenpeace claims is a proven scientific fact.

In January of this year, the USA's W Reclamation company of Illinois, and Harvestire of Florida made a similar tyre recycling proposal to the Nicaraguan government, which

The international environmental organisation Greenpeace warns of a potential disaster threatening Central America owing to the transport of spent nuclear fuel through the Panama Canal, and cites the increasing number of foreign companies attempting to dump toxic waste in the 'backyard' of the US.

that these vitrified materials are twice as radioactive as spent nuclear fuel.

According to Greenpeace, industrialised countries are attempting more and more to transfer toxic waste to the region. In December 1991, O'Brien Energy Systems of Philadelphia, PA presented Belize with a proposal to produce electric energy using industrial and domestic waste through, for example, a sanitary waste dump for the recuperation of methane gas.

The plan was rejected by the Belizean government based on internal legislation and also on the Lome IV Accord, of which Belize is a signatory, which Belize is a part on trade, aid and investment between the European

America located in the Yucatan, Mexico in January 1992 for the installation of a maquiladora plant to separate recoverable materials from solid waste.

In December 1991 Guatemala received a bid from the Guatemalan firm Energia and Recursos, S A to burn rubber tyres to produce electric energy in Puerto Barrios in the department of Itzabal. The Guatemalan company is collaborating with two firms from Miami and one from Denmark on the proposal, which is still under study by the government. Greenpeace maintains that the incineration of tons of tyres could generate massive quantities of highly toxic substances that would accumulate not only in gases but in resid-

is still considering the possibility. Another project under consideration is the importation of sewer sludge from the US to produce fertilisers. Greenpeace claims such fertilisers would be contaminated with heavy metals and other dangerous residue.

In Panama, the KTI Holdings Company of Maine and the Environmental Services Group, in September 1991, offered waste from wood treated with pentachlorophenol to be incinerated to produce electric energy. The danger of this project is that gases containing cancer-producing hexadecanes would be released during incineration. The proposal is still under consideration by the govern-

Greenpeace has also warned of the potential danger of projects involving the transfer of contaminating industries and technology to Central America. Among these is a proposal to Honduras by the Stone Container Corporation of Chicago for timber exploration and pulp extraction for the production of paper.

A similar offer was made by a Taiwanese company to Nicaragua and rejected by the government in January 1992 after wide-scale public protest. Two other proposals considered dangerous by Greenpeace and under consideration by Nicaragua are the installation of a pesticide factory and another for the production of chlorine.

Greenpeace predicts that over the long term, trade in toxic waste and dangerous contaminants will increase in the region, presented as 'favourable to development'. They predict that the imminent deregulation or easing of protective restrictions, distasteful negligence and outright corruption sustain the trade. Without some form of a regional environmental accord featuring monitoring and verification mechanisms, Greenpeace warns that 'the region is in line for ecological disaster, caused by transnationalists that maintain a double standard of environmental security'. — Third World Network