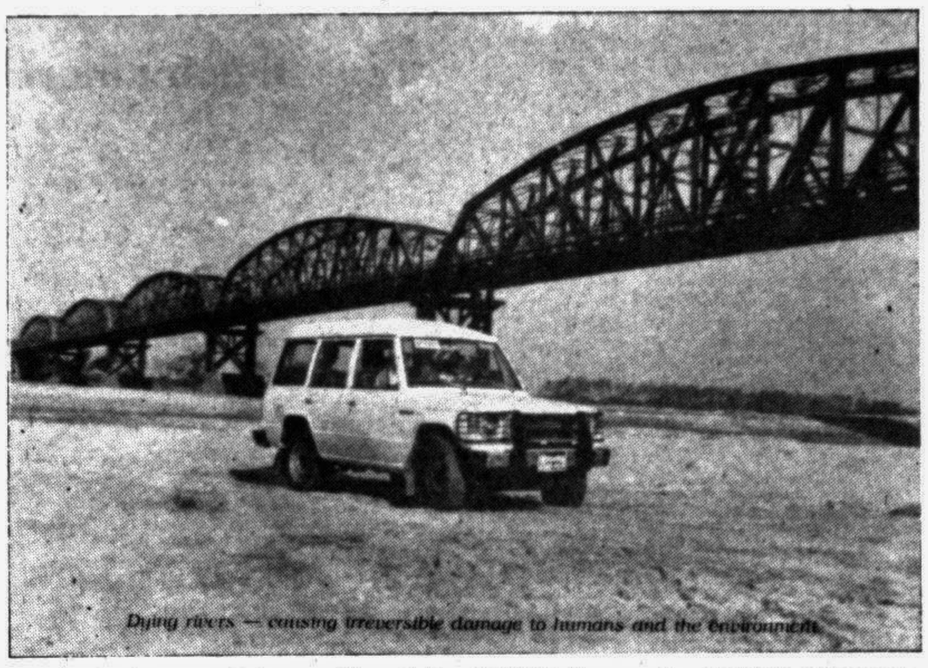
A Dying Padma Causing Human Misery and Ecological Devastation

by Asiuzzaman


Dying rivers — causing irreversible damage to humans and the environment.

THE death of a river causes an irreversible human and environmental damage to the areas through which the river once flowed, say river and water scientists.

It even affects the regional eco-system, results in a drastic fall of groundwater level and salinity intrudes into the mainland water bodies, they said.

Other related sectors, like agriculture, industry, forestry and navigation are affected similarly, the scientist said adding that the ultimate results are the aridity, desertification and the loss of habitat.

Bangladesh's north and north-western parts are experiencing such a devastation because of dehydrational impact of the river Ganges, known as the Padma in the country.

Most of the tributaries of the once mighty Padma are now in their death throes.

"They will die soon unless something is done immediately. There deaths are simply a matter of time," said river scientist Ainun Nishat "Gorai is the worst affected.

Choked up by sand dunes at the point where it takes off from the Padma, the 175-kilometer-long Gorai is now having its last hiccups because of acute shortage of water at its sources.

At least 20 tributaries including the Madhumati, the Mathabhanga, the Kumar, the Hisna, the Kali Ganga, Chhitra, the Kajla, Bhairab, Kabatak, Baral, Isamati, Karatoa, Atrai and Mahananda are on the death throes.

The Padma itself has been heavily silted up near the Gorai take-off due to water diversion by the Farakka Barrage in the Indian state of West Bengal.

The barrage, located some 19 km away from the Indo-Bangladesh border, was commissioned in 1975 and since then the water flow in the Padma reduced by about 40 per cent. The two neighbouring countries reached an agreement in 1977 which expired long ago. Since 1989 there is no agreement between two countries on Ganges water sharing which is the most blistering issue between the two countries.

Bangladesh recorded the lowest 9,000 cusec of water flow in 1993 which at present varies between 1,200 to 1,300 cusec in the dry season. Before commissioning the Farakka Barrage, the water flow was between 65,000 cusec to 70,000 cusec.

"I am an unfortunate man that I have to see the death of a river," said 75-year old Aslam Hossain of Bheramara.

"What a mighty river it was," he said recalling "once the Gorai brought devastation to the poor along its course."

"The current of the river was so swift and scary that we used to think twice before bathing or washing our cattle," said another elderly man.

River experts said that shoal formation, rise in the river bed and severe bank erosion are the symptoms of a dying river and all these are visible in the Gorai and some other tributaries.

According to environment scientist Aminul Islam, the direction of the south-west monsoon has changed over Bangladesh.

"Earlier monsoon rain usually began in June which now starts from August", he said adding "all the four geographical zones are affected by Farakka impact."

According to the Water Development Board officials the off-take of the Gorai has been closed on December 15 last which was usually closed during January-February in the previous years.

One would obviously feel sad at the present condition of the once mighty Padma when he take a troll on the dried river bed near Hardinge bridge.

"People now can raise the question of necessity of this huge bridge," said a bus driver who used to drive more than a kilometer on the river to catch the ferry.

Now people can walk on the riverbed along its course until Renwick's ghat which is about four kilometres from the Gorai off-take and nearer to Kustia town.

WDB officials said that the Ganges-Kobatak (G-K) Irrigation Project failed to irrigate an estimated 48,500 hectares of dry cropland of high yielding aus crop for the past two successive season because of the acute water crisis in the river.

The project covers an 3,50,000 acres of arable land in Kustia, Meherpur, Chuadanga, Jhenidah, Magura, Jessore and Narail districts.

Bangladesh's environmentalists and water engineers say that due to the Farakka, the north and north-western parts of the country are slowly being desertified while south and south-western region are getting more and more salinised.

Water shortage and high salinity is a recent phenomenon of the southern region, said Dr Ainun Nishat.

"The people of Satkhira now can produce salts which indicate the percentage of salinity in water in that region," said Nishat.

Due to the high salinity in the river Bhairab, the 48,000 ton production-capacity Khulna Newsprint Mills (KNM) has to spent about Tk two crore (500,000 US dollar approx) every year for bringing fresh water from 30 miles upstream.

Carrying of water by barges cost the mills Tk 125 (3.12 usd) for every ton of newsprint it produces.

The mills require about 400 tons of water a day.

The salinity reached about 4,000 PPM which cause damage to the machineries.

Because of the salinity rise in the soil the tops of the Sundari (Heritiera paludosa) trees at the world's largest mangrove, are now dying.

About 17 per cent of the total sundari trees in the aquatic forest have already fallen victim to the 'top-dying' syndrome, said the officials of the Ministry of Forestry.

According to a recent study conducted by the Forest Department of Bangladesh and the United Kingdom's Overseas Development Agency (ODA), the sundari trees are now being replaced by 'Gewa' (Excoecaria aqallocha) trees which are more tolerant of higher soil and water salinities.

Any change in the forest would destroy the ecological balance as well as habitat of the Sundarbans animals, a forest department official said adding lack of food would also turn the Royal Bengal Tigers to maneaters while mammals would die and sharks and reptiles would infest the changed environmental situation.

Health officials of the Khulna district said that the people of the areas have developed acute diarrhoea because of regular saline water consumption. Salinised water is the safe heaven for the diarrhoeal germs, the added.

The highest tolerance level of salinity for drinking water in the Khulna region is 500 micro-mhos to 2000 micro-mhos.

Renowned water scientist Amjad Hossain Khan said some 40 million people are directly or indirectly affected because of this water crisis.

He said during the past 10 years some 1,500 kilometers of waterways lost its navigability while some 600 shoals became visible in different river.

The ground water level has gone down to 30ft to 35ft causing various types of tubewells inoperative in different areas.

"A change in the nature is clearly notice in the areas," Khan said mentioning his recent visit to Farakka affected region.

"The crisis would multiply and the situation would deteriorate day by day if we fail to get the right share of Ganges water to increase the flow in the Padma," he added.

(The article was prepared under the Panos fellowship programme)

Human Rights on Hunting and Preservation of Wildlife

Tarequl Islam Munna

EVERY year we find articles in newspapers and magazines blaming hunters for destruction wildlife, but no one comes forward with proper steps for the preservation of wildlife. They may think that writing about it is enough. This is not true, since workable ways and means to protect them from poaching is necessary. Since time immemorial hunters have considered hunting a passion. Therefore, along with our endeavor for preservation of wildlife, a world standard hunting regulation is also needed so that Bangladesh does not lag behind other countries in the effort to protect the environment.

With the advent of winter, every year migratory birds make their arrival in different countries including Bangladesh. But what have we done to protect them? These are indiscriminately hunted and then sold to people who like to eat exotic birds Did Bangladesh Wildlife Aviary Organization gather any statistics of the number of migratory birds that arrive and depart every season?

Had there been standard rules and reserve areas for hunting in our country, there would have been no such unrestricted hunting and killing of birds and animals. In violation of the tax rules and regulations and particular hunting spots there exists constant usurpation of forest and poaching of tigers and deer in the Sundarbans. The officers-in-charge have nothing to say either. Have they been able to accelerate natural breeding of wildlife though their observation of the rules for hunting? Could they increase the number of animals? On the contrary, many of them have resorted to dishonest practices and have helped the hunters poach wildlife and usurp the forestry. Ultimately this carelessness may lead to the extinction of wildlife in Bangladesh.

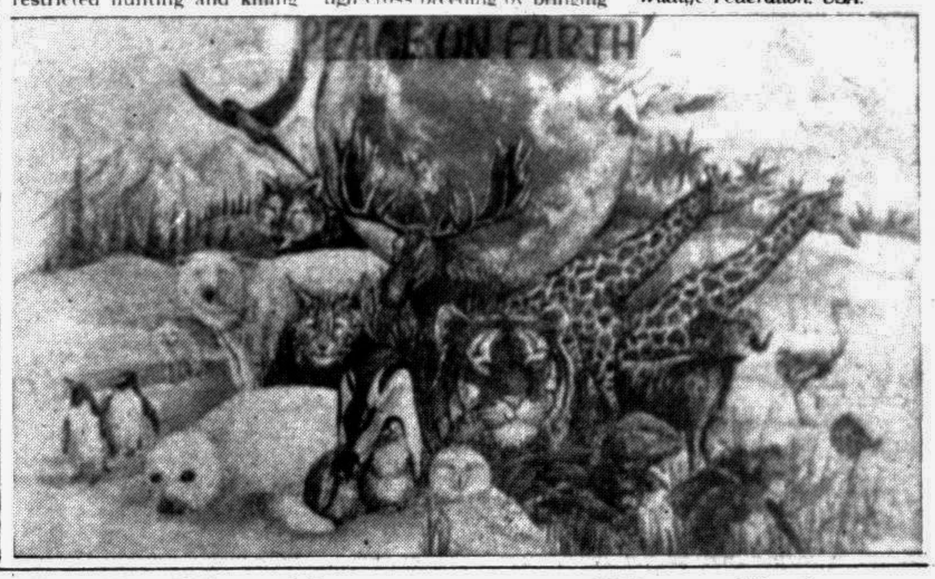
Major improvements in various existing rules and regulations is necessary to ensure safety of wildlife and its necessary increment. To increase breeding, we need to save the rain forests, reserve areas for marshy lands. Moreover, these forests and marshy lands have not yet been brought under wildlife area.

There exists many animals of different species in our zoo, but not all are found in our forests: we can increase the number of such species through cross breeding by bringing the variety from our zoo and from abroad to a reserved area. Effort, therefore, in this regard ought to be taken in order to increase the number of animals which are gradually becoming extremely rare.

Newer collective efforts are emerging for preservation of animals of rare species with the passage of time. In order to preserve them, of late, France and Belgium have held an international conference in November last year. Bangladesh must take proper steps to in-crease rare species of animals such as the "Bengal Tigers."

Every winter season a lot of migratory birds are extinguished in Bangladesh due to poaching with "Bird Catching Nets" (Traps). Can't Bangladesh do something to stop this bird business? In this case Bangladesh wildlife organ-isations should take responsibility with the help of the Government. Wildlife is part and parcel of an environment. It is therefore, imperative on our part to create more forests with reserve areas enabling the preservation and procreation of various species which are essential for our environment.

The Writer is an Hon. Associate member of National Wildlife Federation, USA.



Student Environmental Network Forming

by Al Gore

STUDENTS around the world are forming an environmental science and education network that brings together young people, educators and scientists to study and share information on the global environment.

The Global Learning and Observations to Benefit the Environment (GLOBE) Programs involves students of all ages (kindergarten through 12th grade in the United States and equivalent ages internationally). These students take regular scientific measurements at their schools and share their data via the international communications network, the Internet. Every GLOBE school in the world is making the same core set of environmental measurements. Students report their data regularly to a central data processing facility located in Boulder, Colorado, in the United States. Student data is analyzed and combined with other science sources to form vivid global images for classroom study and for use by the world scientific community.

Scientists from around the world selected the environmental measurements that GLOBE students make. These same scientists are committed to using GLOBE data in their own research. GLOBE students make careful measurements of local environmental conditions such as temperature, precipitation, water acidity, soil moisture and plant growth.

GLOBE is, by its nature, an international program, and I have invited other nations to join. More than 100 have expressed interest in participating, and leaders of countries all over the world have told me how excited they are to have students in their schools join the GLOBE Program. I am extremely gratified and pleased that as of the 25th Earth Day, April 22 this year, about 20 nations have signed bilateral agreements to enter into the GLOBE Program with us.

Students at over 400 US and international GLOBE schools are beginning to officially report their environmental measurements during the week preceding Earth Day. Teachers at each of these schools have been trained by a team of leading scientists and educators to guide GLOBE students. The first International GLOBE Training Workshop was held in Prague, Czech Republic, the first week in April and was attended by teachers from many nations.

One of the fundamental goals of the GLOBE Program is to enhance environmental awareness on the part of students everywhere. I believe it is critically important for students, their teachers and their parents to see that the global environment is part of their own "backyard." In monitoring their local environment and in sharing their data with other GLOBE students around the world, young people will come to understand that environmental phenomena know no boundaries.

Through their participation in the GLOBE Program, today's children are actively contributing to the scientific understanding of the Earth's environment while they are learning about it. As tomorrow's adults, they are equipping themselves with the knowledge necessary to make wise decisions in their personal and professional lives.

The author is Vice-President of the United States.

Santals Struggle to Retain their Indigenous Tradition

by Raffat Binte Rashid

SANTALS like all indigenous people have their own culture, norms, rites and festivals, religious acts which they hold close to their entire being. As they are close to nature, all their annual economic safety and prosperity depend exclusively on agriculture, especially paddy cultivation, their only source of livelihood.

It is a whole way of life to these Austro Asiatics class (as described by Pater W. Schmidt). To the Santals, the annual revolution of the seasons is defined by the cycle of agricultural activities. They are well aware that a drought or any destructive blight on the crops means hunger while a good harvest means prosperity. These material well being of a Santal life is said, to be guarded by the bongas or spirits, which are believed to exercise power over nature and therefore Santals have recourse to them through magical or religious practices. Following these rites and practices they have a series of seasonal festivals which mark the various stage of their agricultural year.

If in case they fail to perform one of their annual rituals, their bongas would visit the land with calamities.Similarly they rejoice with their spirits over a bumper crop. " Besides all these seasonal rather agricultural rites and festivals, we worship any form of force, which we believed is strong enough to help us or destroy us. For example, mountains, fire, water also clay idols of Durga., Kali, Manosha (all Hindu goddesses) are also worshipped by the Santals, explains Denise Marandi while informing about their many festivals. Denise Marandi is a student in the journalism department of Dhaka University and also General Secretary of Santal Students Union.

" Many people still believe that we eat red ants or rats as food, you will find them in many books as well but disappointing to many it may be we eat no such 'delicacies,' to be precise," he continues clarifying many aspects of his unexplained culture.

As they are environment friendly, they depend on herbal medicines and call for their ojhas, medicine men who also act as exorcists and diviners. These medicine men are respected people who have special retained bongas through whose aid the forces of evil are countered. " They not only give us herbs or medicines made from snakes and other animals but also helps us appease our bongas at least thats what our ancestors loved to believe, " Marandi explains.

" These practices have somewhat changed within our society as other religion have slowly started influencing our way of life," he says.As it is said that Santals according to their traditions, have always been wandering from one place to another and it was only natural that their religion, language or culture would be influenced by the people with whom they came into contact.

"Santal religion has come under the impact of Islam, Hinduism, Christainity, " Marandi explains. Saying that Islam practically had no effect at all, Hinduism had great influence followed by Christainity. " Contact with Christainity took place at a time when the Santals were economically destitute, faced with starvation and overcome by the helplessness of their situation. Where ever the oppression of the landlords and money-lenders was mostly felt, the Santals turned to the Christian missionaries who helped the down trodden Santals, adds Pronoa Besra,Assistant Secretary of Santal Students Union also a student of Dhaka University.

The Santal way of life, values and norms had to be altered and the attitudes, behavioral patterns and way of life of the others had to be adopted he says explaining the way he has been brought up by Christian Santal parents.

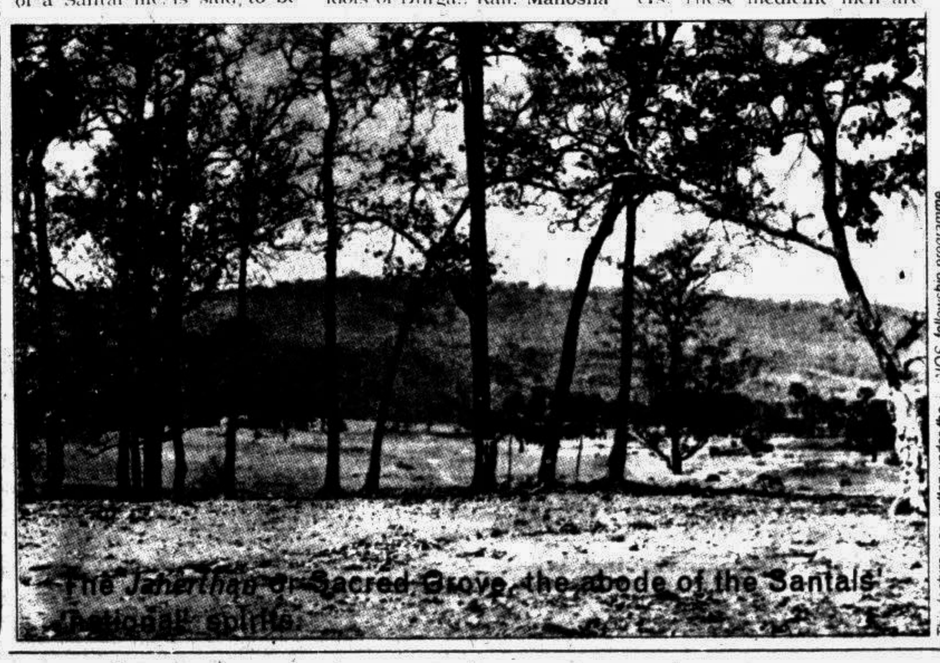
A change in religion has similarly brought about changes in food habits, attitudes to education, health and sanitation. Santal Christian women adopted to the use of sarees, blouses and petticoats while men went for wearing pants and shirts instead of going for their traditional cloth of wearing Panchi Parhat (lion clothes).These converts were sending their children to boarding schools and missionaries and after which they became financially solvent. "These educated Santals were following a wide range of occupations which were unknown to their forefathers, says Santosh Soren,Accountant of Notre Dame College.

" I was born a Santal Christian and in the late fifties a Padri visited our village and asked our parents to enroll me in a school,I remember only two boys from our village went to school that time and thats how I am here today. I still believe that education would solve many of our present problems. Still our main source of income is agriculture, we should have technical or vocational training and it is definitely time to change trades," he says talking about their social problems.

" But these religious impacts have also brought us far away from our own tradition. For instance drinking of our intoxicating drink Handi or rice beer, which is second life for us Santals is strictly prohibited. Our traditional social dances were regarded as obscene. We have large numbers of different dances and songs according to special seasons and festival. The converts did not play the Santal traditional drums, in case they are tempted to dances. But we do want to retain and revive our indigenous culture." Besra says to which Marandi agrees.

For the Santals who wish to enjoy the advantages of modern life while at the same time retain their indigenous tradition, striking a balance between the two is a great challenge indeed.

Few background informations were collected from Tribal Religion by J Troisa.


The Jaherthan or Sacred Grove, the abode of the Santals' protector spirits.


The Janam Shetar ceremony: Women dancing in the courtyard after the Nim Dak Mandi ceremony.

This feature was written under the Panos fellowship programme.

Searching for Environmental Solutions

WHAT is more important than cleaning up the dirty environment we are living in? Many say that ways to alleviate poverty should get top priority in a third world country like ours, we cannot afford luxuries like thinking of ways to stop sea level rise or global warming. While many would strongly oppose and debate that: "If we can attack one of these issues the other is automatically solved. If we develop our country economically, people will educate their following generation and most educated people are environment conscious."

"At one point development process, like industrialization, urbanization do pollute environment but that is for the time being only, countries can check pollution as technology advances. In the long run there is no contradiction between development and environment-related issues," says Fahmida Akhter, a PhD student of University of London. Akhter is the only Bangladeshi student, who has a major in Masters on Environmental Economics. Her specialization is Environmental Accounting for Bangladesh.

She never thought of taking up this subject." But while working as a research associate for BIDS while in Dhaka, her entire course of research and education took a detour. "I was on a project, FAP impact assessment, and was working with foreign consultants who pointed out the importance of this subject here in Bangladesh," she relates.

"Bangladesh is a country where poverty, health hazards, natural disasters are almost everyday issues, but nothing much is being done as far as academic research or implementation is concerned." This field of unexplored research, is what she concentrate on after she returns home with her degree.

The government knows about these problems, academicians are thinking about them but what actually is being done in the fields? "Poverty and environmental degradation are interrelated, for example, with deforestation. People chop trees for money and food, they exhaust natural resources by over grazing, excess fishing but these poor people have no way out other than to do so," Akhter comments.

Policies should be more integrated, workable, people should be made conscious and aware. Then only reducing environmental degradation is possible, according to Akhter. Akhter, who is also a freelancer working for BBC Bengali Section on current affairs, thinks that these are also international political issues. "Developed countries blame developing ones for using dirty technology but they are the ones dumping waste in other seas. Per capita energy conservation is higher in USA than in India or China. The international bargain for these developing countries should be sophisticated technology transfer and asking for more financial support," she says.

Akhter, a determined environmentalist has already presented papers at international seminars in Norway, Amsterdam on sea level rise in Bangladesh, sustainable development in Bangladesh and wants to continue work on these issues.

"In the national income proposal no one ever accounts for the depletion of natural resources, like forestry, fisheries, soil erosion, water pollution. If we account for these depreciations then our GNP would give a different figure," she expresses her other work layouts.

"One to three meter sea level rise is predicted in Bangladesh, if that one metre rises then how many people would be affected: the costing for that, in one word, cost and benefit of protecting Bangladesh from sea level rise; sustainable development; resource degradation; policies that we should be undertaken all these hard hitting important issues were her research subjects.

—RK