Women guarantee better environment

"Women are the world's farmers: They grow the crops, tend the animals, bring in the water. (Yet) international agencies and Governments have everywhere ignored the vital part women play in caring for the environment. Their voice, like their knowledge and experience, is simply not heard."

These words of Victoria Chitepo, Zimbabwe's Minister of Natural Resources, underline the deep links between women and the environment. She was addressing the first African Women's Assembly on Women and Sustainable Development, held in February 1989 in Harare, Zimbabwe.

In the industrial countries, women have greatly contributed to making the environment a central issue. Since the 1970s, women's groups and organizations have been very active in promoting environmental awareness, education and protection. Women make up a large part of Western Europe's Green parties, both as members and as party leaders.

All over the developing world, women play a crucial role in environmental management. As farmers, stock breeders, suppliers of fuel and water, they interact most closely with the environment. They are the managers — and often the preservers — of natural resources.

First, women affect the environment as farmers. Women make up a large share — if not the majority — of farmers in the developing world. According to a United Nations estimate, they account for over half the food produced in developing countries, and for more than three fourths of the family food supply in Africa.

In many developing countries, men migrate to the cities in search of jobs, leaving women in charge of the farms. As many as one third of rural households are headed by women, according to a study of the Food and Agriculture Organization of the United Nations (FAO). Thus women are increasingly making decisions — on production, land use, fertilizers, pesticides — that affect the environment in many ways.

Women are not only land managers, but innovators in crop use and monitors of plant species, a 1986 World Bank study indicates.

Women are equally important in water management. Making up a large share of farmers, women are primary users of water in agriculture. In rural areas, women are also the main collectors and users of water for their household. They are immediately affected by degraded water systems, and have a vital interest in good water quality. Their role in watershed protection and in water quality are the key to water ecological systems, a United Nations study says.

The same is true in the management of trees and forests. In many societies, women are responsible for the care and maintenance of trees. They are also the main gatherers of fuelwood for heating and cooking. For women, forests are an important resource in many ways. They provide fodder, medicinal plants, wild fruits, and raw materials for mats, baskets, ropes and fences. As major users of forests, women are well aware of their value, and of the need to limit the rate of exploitation below regeneration capacity.

Women have another strong link with the environment. In various developing regions, population pressure contributes to environmental degradation, putting unprecedented strains on natural resources. In many areas, population pressure is depleting natural resources faster than they can be regenerated.

The population factor puts a similar burden on women. High fertility rates often mean high infant and child mortality, poor health, malnutrition, and heavy domestic chores.

Here women's role is again paramount. Improvements in their status are a crucial factor in bringing down family size. Data from all over the world show that as female education, health, employment and legal rights improve, birth rates decline. Any programme bettering the situation of women will lead to lower birth rates and lower pressure on the environment.

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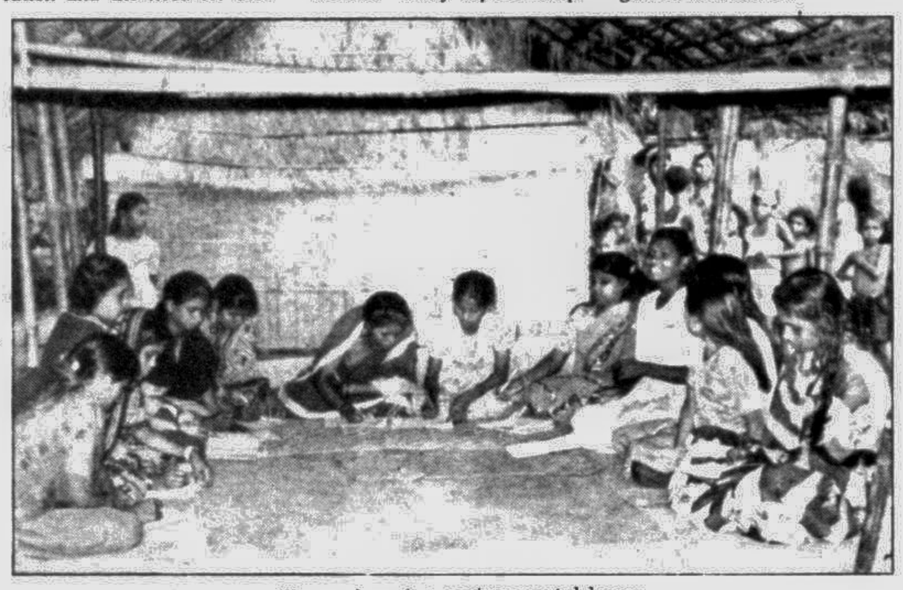
Managers of Environmental Projects

This complex with the environment helps to explain the high number of environmental projects started by women all over the developing world. Women have a strong awareness of environmental deterioration and the need for conservation.



Women learning environmental lesson.

In many rural areas, women have taken the initiative in ensuring an adequate supply of water. Kenyan women started in 1977 a water-for-health programme which has supported over 80 community water projects. In Malawi, women help ensure all over the country the maintenance of some 8,000 handpumps.

Women are also taking care of reforestation. In Zimbabwe, the Association of Women's Club is carrying out in many areas tree-planting projects, using drought-resistant trees. Kenya's Green Belt Movement — a project of Kenya's Council of Women — is a grass-roots tree-planting movement rooted in the local communities, where women and young people set up nurseries and supervise the planting and care of the seedlings. Today some 670 tree nurseries are producing millions of seedlings.

India's Chipko movement is a prime example of women acting to prevent destruction of their resources. In 1973, angered by the selling of their trees to a timber company, women of Uttar Pradesh State protected them through non-violent action: as the company prepared to fell trees above their village, the women rushed to the woods and hugged the trees, protecting them with their bodies. Chipko has since become a major environmental force. Today Chipko's women plant trees, build soil retainer walls and draw up village forest plans.

Similar movements are active in Brazil, Nepal, the Philippines and many other countries. Women's action is not confined to reforestation: it extends to promoting community agriculture and encouraging the efficient use of biomass fuel.

But too often environmental projects tend to overlook women. "Today top-down approaches often negate local women's knowledge and capabilities", says Shimwaayi Mutemba, Executive Director of the Nairobi-based Environment Liaison Centre. Yet the solution to environmental problems may lie in the empowerment of women, she says.

Governments and development agencies are increasingly aware that women must be involved in planning and carrying out environmental projects. Successful programmes concerning the environment have women at their centre, stresses the United Nations Population Fund (UNFPA). FAO points out that women's central role in managing natural resources must be recognized by policy makers if policy is to accomplish its objective of environmentally sound development.

Various United Nations agencies are supporting environmental projects carried out by women. Among them are the United Nations Environment Programme, the United Nations Development Programme, the United Nations Development Fund for Women, FAO and UNFPA.

More Vulnerable to Contaminants

Women are more vulnerable than men to environmental contaminants, because of their capacity to bear children. Many reports have linked reproductive defects to contaminants such as lead, says United Nations study. With the increase in the number of chemicals — some 70,000 chemical products are today on the market, and some 1,000 new ones enter the market each year — the impact on women and infants appears to be on the increase as well. The possible effects of exposure to chemicals range from infertility, miscarriage, neonatal death and malformation, to growth retardation.

Birth defects now cause between 15 and 35 per cent of infant deaths in industrial countries. One fourth of the abnormalities are genetic in origin, and between 5 and 10 per cent are the product of specific agents known to cause birth defects, such as drugs, viruses, radiation and chemicals.

Contaminants also appear in human milk. Examples of chemicals known to be concentrated in human milk include pesticides and organohalides. Recent studies have shown that in some countries the daily intakes of such substances by breast-fed infants are higher than the levels considered acceptable by the World Health Organization.

Active in Protecting Environment

All over the world, women's organizations are promoting environmental awareness, education and management. Women form a large part of the membership of environmental movements. In many countries they have been the first to lead the protest against chemical, water and air pollution.

Hundreds of women's groups are active in environmental issues the world over. In the Soviet Union, thousands of women are involved in a world-wide movement called Bambi, a children's ecological and ethical movement which is working to increase youth awareness of environmental issues. In the United States, the League of Women Voters has been a pioneer in forcing national action against water pollution. In the Federal Republic of Germany, women leaders have played a key role in the emergence of the Green Party.

Internationally, women have set up WorldWIDE (World Women Dedicated to the Environment), an organization promoting the involvement of women in environmental management. Based in Washington, D.C., United States, and with members in some 50 countries, WorldWIDE works to make political leaders and the public more aware of environmental issues, to enhance women's influence in environmental organizations, and to increase the inclusion of women in development policies and programmes.

The United Nations Environment Programme established in 1985 the Senior Women's Advisory Group on Sustainable Development (SWAG), made up of women in leadership positions from 19 nations. SWAG members include Zimbabwean Minister Victoria Chitepo, former French Health Minister Simone Veil, United States Congresswoman Claudine Schneider, Hungarian columnist Eva Szilagyi, and Egyptian Senator Shafika Nasser.

SWAG organized the African Women's Assembly on Women and Sustainable Development, held in Harare in 1989. The Assembly, attended by 160 women from 20 African countries, made recommendations on managing seas, rivers and lake basins, forests and woodlands, deserts and arid lands.

These are similar activities are expected to influence the forthcoming United Nations Conference on Environment and Development, to be held in Brazil in June 1992. The Conference will provide a major opportunity to acknowledge women's vital role in sustaining our common future.

— (UN Focus).

Pollutants Can be Treated to Reduce Environmental Hazards

by Rathindra Nath Sanyal

THE environmental pollution has become one of the most serious topics these days. The predicted rise of sea level will cause many famous cities of the world go under water. This is because of massive melting of ice in the South Poles. All this will in turn lead to a warmer atmosphere.

Environmental pollution control is a relatively new concept in Bangladesh. Human beings are related to air, water, soil, sound etc. If these are polluted then many diseases like diarrhoea, dysentery, typhoid, hepatitis, diseases of respiratory system, eye, ear, nose etc. spread abnormally.

Pollution in myriad forms.

It is quite impossible for a country to develop a healthy society with a decent level of healthy environment. Environment is polluted in different ways either directly of indirectly through air, water, soil and noise, pollution due to industrialization in unplanned way, agricultural activities and other wastes and effluents released in the open.

Bangladesh is one of the most natural disaster-prone countries. It is ravaged by regular visitations of floods cyclone, storm, drought, abnormal rainfall, hail storm, Nor'westers and tornados. Erosion and land slides, earthquakes, saline intrusion, industrial, domestic, agro-chemical and other pollutions, deforestation and depletion of biomass etc pose a potent threat. There is also the problem of scarcity of drinking water, proper sanitation, heavy pollution from human and animal wastes, emission of black smoke from factories and vehicles, loud horns and noise. Excessive extraction of ground water, irrational use of chemical fertilizers/pesticides have further complicated the problem.

The land of Bangladesh has flood plains 80 per cent, terraces 8 per cent and hilly regions 12 per cent with a total area of 1,44,000 sq. km. There are 250 rivers which occupy 6.5 per cent of the total land surface. Here population density is 843 per sq. km.

Cause of pollution :

Among the elements that are responsible for polluting atmosphere are : cadmium and cadmium compound, lead and lead compound, fluorine, hydrogen fluorite, fluorine compound, chlorine and hydrogen chloride, nitrogen monoxide, formaldehyde, methanol, hydrogen sulfide, hydrogen phosphate, sulphur dioxide. Carbon monoxide, carbon disulfide, benzene, pyride, phenol, sulphuric acid, selenium dioxide, chloro sulphuric acid, phosphorous, phosphorus trichloride and nickel carbonyl also greatly contribute to pollution.

Copper mixed with mud may cause low grade paddy. If the mud is polluted by copper then only either the mud should be changed by new soil or neutralized with calcium. Mud is also polluted by other heavy metals due to extracts of different types of industrial wastes, catalysts, ashes and paints.

The galvanizing industry is one of the most polluting industries in the world. Specially, the compound commonly known as 'flux', generated during the galvanizing process, remains a source of pollution almost for ever. Treatment of gases, water and other liquids coming out from factories is no doubt important, but the most important thing is to make proper treatment and safe disposal of the flux.

Flux is a compound with 36 per cent zinc, it contains 2ZnCl2 and NH4Cl, ZnCl2 and ZnO, ZnNH4Cl2. At atmospheric temperature it is solid, looks black and can get dissolved. When dissolve in water, pH become a highly corrosive solution.

Bangladesh spends a huge amount of its precious foreign exchange to import zinc for galvanizing. It is quite possible to recover a part of this investment by treating and selling the flux. As a result, the prominent source of pollution will be eliminated.

If the galvanizing industry uses 'hot dip system' about 5 to 7 kg of flux is generated for each ton of products. Expert opinion is that annually about one crore taka will be saved by extracting zinc from flux. From this point of view, one possibility is to promote a specialized industry which will procure flux from all the galvanizing plants of this country for further treatment and commercial export as value added raw materials to the developed countries.

The other compound generated during the galvanizing process is known as 'dross'. It is a compound of zinc and iron. Dross is being sold at a nominal price in Bangladesh. But it is quite possible to recover zinc from dross like flux. Its treatment also reduces the source of pollution.

Another hazardous material named as chromate (salt of chromic acid) is handled in foreign countries under strict rules and regulations. In Bangladesh many industries are using chromate without care.

There is pollution due to sulphuric acid gas, when making GI sheets. Sulphur is burnt to give a glaze on the sheet surface. By doing so, sulphuric acid gas is generated which is released to the air without any treatment causes air pollution. The sulphuric acid gas should be passed through water when it becomes liquid sulphuric acid. This must be neutralized with some alkali before discharge. The cost involvement in this treatment is not very high and the plants should be able to manage it within their own resources.

Exhaust gas from automobile is one of the causes of atmospheric pollution. Carbon monoxide, nitrogen oxide and hydro-carbon exhausts from vehicles cause pedestrians to feel pain in eyes or difficulty is breathing. The air-condition, refrigerators are using chloroflurocarbons and the extracts from these machines are destroying ozone layer. As a result ultraviolet light, coming from the sun, can easily enter into the earth. And this may increase cancer. There is a recent report from Nasa's Upper Atmospheric Research Satellite (UARS) that ozone layer at mid-latitudes has decreased by about 5 per cent. The seasonal ozone hole above the Antarctic had appeared one week earlier than expected. Fortunately it has appeared in a part of the world that people don't live in, although it is a spectacular occurrence.

It is very essential to establish a pollution investigation system after taking data from different portions of the country, concentrating on factories, traffic system, and population. To protect the environment from pollution, it is necessary to set up the quality standards for environment. There must be a authority to follow up the standard of the discharged water from the factories which pollute environment. Before setting up a big industrial complex, an industrial estate, housing estate, or any other large scale development project it is necessary to carry out the environmental assessment. The objective of environmental assessment is to estimate the ultimate effect of the project on the surrounding environment when it has been completed. On the basis of this assessment the government decides whether to give the approval.

Collective efforts should be taken by the industrial sector of the country for the pollution control measures. Above all, financial assistance, pollution control guidance by experts, appropriate equipment and facilities are also essential.

Tourism Threatens a Wildlife Refuge

by Michele Sheaff

PLANS for a major tourists development in the heart of an important Costa Rican wildlife refuge have stirred controversy among local residents and brought dire warnings from environmentalists.

The refuge was created in 1985 to protect nearly 5,000 hectares of land and 4,400 hectares of ocean and coral reef on the southern tip of the country's Caribbean coast. It contains the only mangrove forest left on that coast and an important nesting ground for sea turtles.

The Gandoca-Manzanillo Wildlife Refuge is home to hundreds of species of animals, fish, birds and plants. Eight of its 358 bird species are threatened or endangered, and it is the only known habitat in the world for 15 rare plant species.

Costa Rican law does not prohibit development within wildlife refuges. Already, cabins and hotels have sprung up on land deforested by farmers – changes that have rapidly changed the face of the area since a dirt road extended into the refuge in 1984.

So far, lowland rain forest in the southern half remains untouched by development. But environmental damage has begun. There-quarters of the reef, Costa Rica's largest and most diverse, has been seriously damaged by sediment and agro-chemicals washed in by rivers near inland banana plantations.

Further deforestation or sewage contamination could spell the end of the reef, since coastal trees act as filters which protect it.

At issue today is a $3 million, eight-hectare development planned by an Italian company, Eurocaribena de Turismo, which would be the largest of its kind in the reserve.

Its first stage is construction of an 80-room hotel, along with swimming pool and clubhouse. Later, Eurocaribena plans 50 more rooms, a small discotheque, shopping centre, tennis courts and 60 lots for small cottages.

Environmentalists such as James Lynch, president of ANAI, a local conservation group, worry about the scheme and an upsurge in tourism. He said: "The entire refuge is very, very endangered. It's a fragile area."

Residents of an ecologically diverse wildlife refuge in Costa Rica face a dilemma. They want economic development, particularly after a disease wiped out the cacao economy on which many depended. But large-scale hotel complex planned for the refuge could bring environmental damage and threaten their long-term interests. Environmentalists warn, reports Gemini News Service, that tourism could further harm the area.

An ANAI report on the refuge's importance notes that, among other things, it is home to threatened and endangered species such as four kinds of sea turtles nesting on the beach and eight of the refuge's 358 species of birds.

The 500 people living there are caught in a dilemma. On the one hand, tourism development is reviving a local economy devastated when its mainstay, cacao farming, was destroyed 12 years ago by monilia rorei, a disease which turns the cacao pods to white powder.

On the other hand, conservation of the local environment and the residents' traditional way of life is seen as essential. Fernando Ansel, president of the Manzanillo fishermen's association, said : "The people are not against development. It's not that they don't want tourists to come around and so forth, but they don't want big development. If we allow everybody to come, in like Eurocaribena down the coast, we wouldn't have a wildlife reserve we'd have a city."

Under Costa Rican law, a developer must conduct an environmental impact study and obtain approval from the Ministry of National Resources, the Costa Rican Tourism Institute and the local municipality if it is located within the first 200 metres of beachfront property.

The institute and local municipality have already given Eurocaribena the go-ahead, and Natural Resources Minister Hernan Bravo has said he is satisfied the project will not have a "severe impact" on the environment.

He says : "We protect natural resources to protect human beings. In an area like the refuge, there are a lot of social needs. We have to try to give a better way of life to the citizens, taking care at the same time to protect the natural resources."

Certainly, residents have benefitted in some ways from development. Jobs have been crated and residents have a larger market for their fish, fruit, coconut bread and services such as guided tours and boat rides. They also have the road, and electricity, which arrived in 1989. Today, locals are fighting for phone lines and running water.

Rogelio Smith, 64, life-long refuge resident and former cocoa farmer, welcomes the changes, "We're living better than before. We're in light now. Before we were in darkness."

Eurocaribena spokesman Carlos Campus says his company is committed to conservation and is studying ways to preserve the reef, re-forest the area and treat the rivers. The hotel plans its own sewage treatment plant and says future construction on the lots will be strictly controlled. "We will conserve nature, because it is part of the attraction of the hotel," Campus said.

But Lynch worries that the development could open the door for other developers to build large projects within the refuge, leading to "direct destruction" of natural resources.

He says : "I don't think it's wise to conserve everything for the sake of conservation. Local people do need to live too and deserve a certain quality of life." The solution was "sustainable development based on those resources."

The question now is how to control development to ensure it remains sustainable. Some residents, such as George Hansel of the fishermen's association, do not believe they can depend on officials to protect their environment. They want more communication between the government and the community.

"They never consult us — never," said Hansel. "We would like to know where the garbage is going, where the sewage is going, how much beautiful forest they'll take away. Many agreements are made at a table in San Jose (Costa Rica's capital) and they don't even know where we live."

While Burton lives in the last house at the end of the road where the jungle begins. He makes a living taking tourists on guided tours to share his knowledge of the environment.

The rich life of a threatened refuge

In 1994 tourism will overtake bananas as Costa Rica's primary industry. All this could be threatened in Gandoca-Manzanillo Wildlife Refuge