

Ecotourism : An effective tool for nature conservation

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ANY definitions of "ecotourism" have been emerged since the term was coined in 1987. In 1991, The Ecotourism Society (TES) developed the following definition: "Ecotourism is a responsible travel to natural areas that covers the environment and sustains the well being of local people" (Epler Wood, 1996). Expanding on this definition, TES has developed seven basic principles of ecotourism: the ecotourist performs the following:

- Avoids negative impacts that can damage or destroy the integrity or character of the natural or cultural environments being visited.
 - Educates the traveler on the importance of conservation.
 - Directs revenues to the conservation of natural areas and the management of protected areas.
 - Brings economic benefits to local communities and directs revenues to local people living adjacent to protected areas.
 - Emphasizes the need for planning and sustainable growth of the tourism industry and seeks to ensure that tourism development does not exceed the social and environmental "capacity".
 - Retains a high percentage of revenues in the host country by stressing the use of locally-owned facilities and services.
- The term ecotourism (which

The threat to Bangladesh biodiversity is serious but not yet irreparable. As development and agriculture accelerate, however, damage may soon be irreparable unless sustainable development is established at grassroots and decision making levels. Development within the industry of ecotourism and its marketing has given insufficient attention to the possible significance of Bangladesh's cultural and natural heritage.

the first distinction being whether or not the interest in natural history is dedicated or causal. Dedicated ecotourism and natural history travel is practiced by ornithologists, botanists and other professionals, as well as by people with serious interests in natural history areas. This can be considered "hard core" natural history travel. On the other hand, "soft" ecotourism, or natural history tourism, combines nature-oriented travel with beaches, deep-sea fishing, shopping, culture, etc. Tourism and trips in this category tend to try and combine a variety of motivations and activities in single trip, e.g. viewing tropical forest scenery, watching birds and wildlife, visiting archeological ruins etc. The second hard soft distinction refers to the physical rigour of the experience. Will the visitors have to walk miles into undeveloped wilderness, sleep in a tent or crude shelter and tolerate primitive sanitary conditions? Or will the visitors stay in quality accommodations, eat in good restaurants and be conveyed in comfortable transport? Some of hard tourism, from the standpoint of dedication to natural history, falls into the soft

resources, as fostered by the World Conservation Strategy and the sustainable development strategy of the World Commission on Environment and Development. Ecotourism evolved in the last three decades from the interaction of environment and tourism interests. Ecotourism should be based upon a relatively undisturbed natural environment, be non-degrading and non-damaging, be subject to adequate management and continue directly to the continued protection and management of the protected area used. Ecotourism places many demands on a wilderness area, foremost being the ability to accommodate tourists while still providing the experience. The advantage for the wilderness area is that "because (ecotourism) is primarily resource-based, protection of these natural and archeological resources is essential for sustained ecotourism" (Kusler, 1990). Many conservation organisations and governments see ecotourism as the means to both preserve and develop remote areas.

Some refer to ecotourism as nature based tourism. Even if the

that is "lost" by foregoing timber harvesting or other exploitative uses on a short term basis. In Costa Rica, an organization of American States (1987) Study reported that even 10 years ago, a single national park, Corcovado, generated over US\$ 1 million a year in foreign earnings. Prior to the recent social and political strife in Central Africa, over 6,000 people visited Rwanda's Park National Des Volcans each year, generating over a million dollars in much needed foreign currency through park entry and gorilla watching fees. It has also resulted in the government of Rwanda stopping the exploitation of gorilla habitat from the park to donate native farmers, while the presence of tourists apparently drove off poachers who were making serious inroads in the gorilla population.

How ecotourism is mechanised as tool for conservation?

Ecotourism could be used as tool for conservation of forest and as well as conservation of nature. It is told that ecotourism is able to

oped. It is this necessity for development of natural areas to produce economic benefits that makes ecotourism so attractive. "[Environmentalists and...officials in Madagascar] are counting on the burgeoning worldwide interest in 'ecotourism' to help save what's left of the country's natural resources"... (Hale, 1989).

Third, the world's biodiversity is being lost at an estimated 140 species per day. It is imperative that biosphere reserves are established in many tropical countries -- the "hot spots" of biodiversity -- in order to protect what is left. Ecotourism is an attractive use of these reserves, as it aims to protect natural resources, not destroy them. Ecotourism also brings in foreign exchange that helps to support the maintenance of these reserves.

Fourth, in many countries these reserves are created from lands belonging to the government. The government has the right to sell that land to foreign producers, to logging companies, or to create a reserve with it. Local people living in these areas may have no right to ownership of the land. However, in order to sustain a reserve and its ecotourism, government, developers and scientists must invest in these communities and recognise the rights of local people, who have for so long protected these natural resources.

Fifth, local communities must be involved from the very beginning in planning a reserve and be able to give their opinions and to be heard. Ecotourism can bring many changes to a society and these communities must have a say in what they are willing to accept. Some of these changes can be very culturally detrimental. Without the whole-hearted support of these local communities, ecotourism and the reserve can fail ... (Hughes, 1996; Stonich, 1996; Tchamie, 1994).

Sixth, with money from ecotourism, jobs for local people become available (including ownership and management jobs) and health and education of local people can be improved. With education of women and decreased mortality rates for infants, women have less numbers of babies ... These health and education improvements can go a long way in alleviating poverty, population growth and land-distribution problems, which are the main cause of natural resource degradation and biodiversity loss (Murdoch, 1980).

Humans are part of the ecosystems that ecotourism seeks to protect. Ecotourism is not only a means for visitors, governments and scientists to conserve protected areas, but also recognises that local communities are stakeholders in the ecotourism process and its success or failure. The main point in this argument is the debate over whether humans are part of ecosystems or not and whether their inherent rights to the land should be considered. If governments of developing countries are aiming to lower population growth and improve standards of living, they will invest in local communities through ecotourism.

The following is a quote from a group of local people representing their own tourism organisation, ATEC, from the Talamanca region of Costa Rica, presenting a talk at an ecotourism conference:

"ATEC would like to encourage the ecotourism establishment to reflect on why the opportunity for international ecotourism exists. Is it not because traditional societies in fragile natural environments throughout the world learned, through centuries of experience,



In Lawasara (Srimogol), a monkey is eating ripe jackfruit from the naturally grown tree in the forest to the natural satisfaction of its appetite.

how to live within ecological constraints and passed this knowledge on through myth and ritual and practice?"

"Just as Columbus 'discovered' America 500 years ago, the ecotourism establishment is out 'discovering' ecotourism sites in the underdeveloped countries. We who live in such settings hope that the ecotourism industry will take care to avoid repeating Columbus's crimes against indigenous people who have for centuries been the caretakers of the forests.

"We are not waiting for you to come 'develop' us. History has taught us to be cautious about your schemes. We are hoping that when you come to our communities you will come humbly, wanting to learn from us what we can teach you about environmentally responsible living.

"We hope you will help us to create opportunities to share our knowledge and the richness of our natural resources with you in ways that recognise and reinforce the dignity and autonomy of our people" (Salazar et al. 1991).

Bangladesh scenario

In Bangladesh, we have some important forest areas (Chittagong, Cox's Bazar, Sylhet, Mymensingh, Tangail and Khulna the largest one) to be treated as the ecotourism spots and that could be used as the potential sources of tools for the conservation of forests and nature. Of them, Sundarbans could be taken as an example. The Sundarbans, a cluster of islands with an approximate area of 3,600 square kilometers, is the greatest mangrove forest in the world. It is located at the southern extremity of the Ganges delta bordering the Bay of Bengal in the southwest of Bangladesh, in the district of greater Khulna. Non-wood forest products (NWFPs) provide employment to about 299,000 people in Bangladesh. Much of this employment continues throughout the year, or at least during the agricultural off-season. NWFPs from mangrove forests contribute an estimate Taka 717 million (US\$ 17.9 million) annually to the Bangladesh economy, directly or indirectly. For most of our mangrove NWFPs, there are no policies, rules or regulations applicable to their growth and harvesting. Processing of most WFPs in the mangroves is still primitive. Product quality is low and, therefore, less accepted in the international mar-

kets.

The variety of the natural mangrove has much to offer to an inquisitive visitor. Land and water meet in many novel ways. The Sundarbans is the natural habitat of the world-famous Bengal tiger, spotted deer, crocodile, jungle fowl, wild boar, lizards, Rhesus monkeys and an innumerable variety of beautiful birds. For the botanist, the lover of nature, the poet and the painter, this land provides a variety of wonders. Thousands of meandering streams, creeks, rivers and estuaries add charm. The main attractions of this area for tourists include wildlife photography, viewing and studying the world's largest mangrove forest, boating, and meeting local fishermen, woodcutters and honey collectors. Also of great importance is the peace and tranquility of the wilderness.

Exciting activities take place in Dublar Char (small island in the Sundarbans) in the forest where fishermen from Chittagong gather for four months (mid-October to February) to catch and dry fish. But the most daring and exciting of all activities involve the honey collectors who work in groups for just two months (April and May): it is interesting to see how they locate a hive and collect the honey. Famous spots include Hiron Point (Nilkamal) for observing tiger, deer, monkey, crocodiles, birds and natural beauty, Katka is another spot for deer, tiger, crocodiles, variety of birds and monkeys, and a morning and evening symphony of wild fowls. The vast grassy meadows running from Katka to Kachikhali (Tiger Point) provide opportunities for wild tracking. Tinkona Island has tiger and deer.

Ecotourism models around the world differ in their biases. In Bangladesh, it is necessary to follow a model that incorporates local communities' involvement as a bias, given that members of the local communities are usually landowners. It is necessary for Bangladesh to recognise that ecotourism has the potential not only to provide quality employment income, and business opportunities for local people, but also to act as a catalyst for the preservation of the natural environment and indigenous/tribal cultures.

In Bangladesh, biodiversity is running under 'double sided' characters. This is the characteristic of Bangladesh biodiversity in the present time, but there is every possibility to have a change in the

character very soon. One side of the character is the 'species richness'. Still number of species is very high in Bangladesh forests and in aquatic ecosystems. Another side is that, the population size of the existing species is very low almost in all the cases. The double sided characteristic bears hopefulness in the way that if the species richness could be started to be preserved immediately then the biodiversity could be used both for the economic benefit and the environmental soundness. On the other hand, low population size in the species is risky for taking the entire species to the extinction. So, maximum species are at the stage of seriously "threatened" status. This is the negative side of the double sided characteristics. It is to be realised that, all species conservation strategies must be taken by now immediately without any delay. Otherwise, species richness will fall very soon and both forest and aquatic ecosystems in the country will have negative impact on the human population.

Bangladesh biodiversity is threatened due to a shift from subsistence to a cash economy and increasing population. Deforestation caused by cash-crop development, urbanisation and small holder farming is currently at high percentage per annum. One example could be given from Modhupur sal forest (occupation of sal forest by cultivation of banana for commercial purpose). The threat to Bangladesh biodiversity is serious but not yet irreparable. As development and agriculture accelerate, however, damage may soon be irreparable unless sustainable development is established at grassroots and decision making levels. Development within the industry of ecotourism and its marketing has given insufficient attention to the possible significance of Bangladesh's cultural and natural heritage. Places of historic importance, ancient archeological sites, rainforests, mangrove forests and reef ecosystems have been underutilised as tourist attraction. The concept of sustainable tourism, however, can find its greatest support through the increased development of ecotourism.

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Occupation of Modhupur sal forests by cultivation of banana for commercial purpose.

blends 'ecology' and 'tourism'), covers the scope of tourism that draws upon natural, human-made and cultural environments. The term is most commonly used to describe any theme of travel to experience natural environments or settings. However, the ecotourism society adds social responsibilities to define ecotourism as "purposeful travel to the natural areas that creates an understanding of cultural and natural history of the environment, safeguarding the integrity of the ecosystem while producing economic opportunities that make the conservation of natural resources beneficial to local people".

Ecotourism often combines elements of scientific investigation, education, recreation and adventure. However, it is very difficult to define ecotourism, particularly with the diversity, combinations and degrees of orientations and interests involved. According to consideration of Laaman (1987) and Durst (1994) ecotourism has two dimensions like hard and soft, with

category of physical rigour. The inverse also occurs when causal devotees seek (or unwillingly endure) rigorous travel experiences. It could be noted that there are some varying degrees and overlapping of both hard and soft ecotourism in orientations and combinations. Both types may incorporate some ecological aspects and techniques. With the ecological and environmental interests today, ecological themes and aspects are growing more and more popular in tourism.

Why ecotourism is conservation tool?

Ecotourism makes a model to conserve nature and natural resources. The resources bring economic supports and strengths. The supports provide encouragement to accelerate conservation of resources and also the environment. In this environment resources grow and sustain.

Environmental tourism is grounded in the concept of the sustainable use of natural

details vary, most definitions of ecotourism mean a special form of tourism that meets three criteria like: 1. It provides for conservation measures. 2. It includes meaningful community participation; and 3. It is profitable and can sustain itself.

Ecotourism, or nature tourism, is just one component of the tourism industry. Nevertheless ecotourism should support the concepts and principles that contribute to integrating social, economic and environmental goals. Therefore, ecotourism should have the following: * To attract tourists to natural environments which are unique and accessible. * To be used to improve nature conservation through education. * To lead to changing of attitudes in local people and government. * To provide employment and entrepreneurial opportunities to local people. * To generate revenue.

On sustainable and long-term basis on the macro level, ecotourism can generate economic returns that supersede the potential revenue to the national treasury

increase revenue in more sound and pleasant way than any source of revenue generation. The mechanisation of using ecotourism as the tool is the strategic adoption of ecotourism investment in the communities.

The World Travel and Tourism Council (WTTC) has identified six major reasons for ecotourism investment in local communities. The reasons of ecotourism investment in local communities are first, second, third, fourth, fifth and sixth.

First, according to the World Travel and Tourism Council (WTTC), tourism is the largest industry in the world. "The travel and tourism industry employs 127 million workers (one in fifteen workers worldwide). Ecotourism is the largest growing sector of the tourism industry, with (1994 surveys showing) 40-60 percent of all international tourists (528.4 million) are nature tourists.

Second, increasing human populations and their demand on natural resources make it almost impossible for developing countries to leave large areas undevel-

Disposable oceans?

GREENPEACE INTERNATIONAL, PACIFIC OCEAN

HERE in the middle of the Pacific, plastic marine debris is a harsh reality that marine creatures large and small have to live with. But for those of us onboard the Esperanza, the real impact of plastic on our oceans is still unfolding. On our way to California, we've already noticed more and more plastic pollution pass us by, and we're getting a very clear picture of how our lives on land are helping to destroy life at sea.

Today, we're continuing to move through the Trash Vortex, an area of the North Pacific where currents and winds gather plastic pollution from both sides of this peaceful ocean. We're watching in awe as pieces of trash large and small pass us by, and with our sampling and discovery efforts, we can even see how this garbage is becoming one with ocean creatures.

Size doesn't matter
The problem is much worse than we could have thought. We had thought that the large bits of plastic floating by were a significant problem, but we had no idea just how



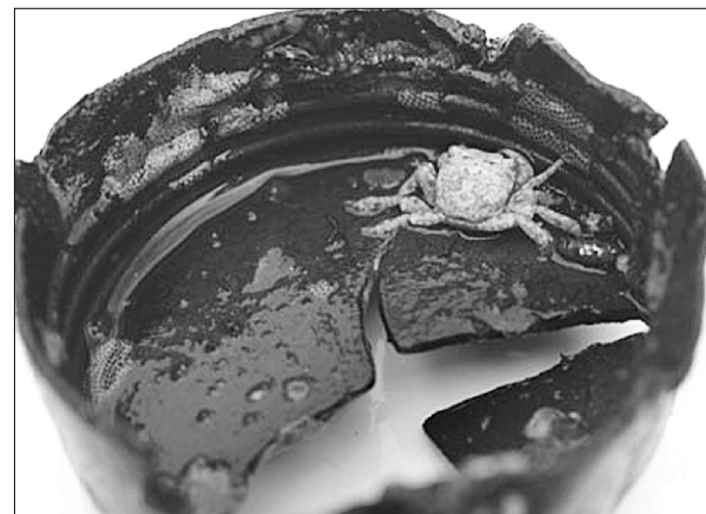
many tiny pieces of plastic would turn up in our daily sampling efforts. The marine debris sampler, which we drag alongside Esperanza twice daily, skims the surface of the ocean and brings up everything in its path.

We've been getting a disturbing amount of plastic, large and small. The occasional toothbrush, netting and tubing paint a grim future for our oceans, but what is potentially more dangerous are the little pieces of plastic, worn down by years of swirling in the salt water.

These small pieces of debris, including pre-production pellets, or "nurdles," can appear to be food for fish, sea birds and even the smallest of ocean life. These may also act as a toxic sponge, absorbing persistent organic pollutants, the consequences of which are yet to become clear.

What can we do?

Seeing someone's toothbrush float by in the middle of the Pacific has been an eye-opening experience for everyone onboard. If someone knew that their toothbrush would one day end up thousands of miles away from the nearest spot of land, would they still carelessly throw it away? What we need to do is start



demanding more responsibility from each other in our use of plastic, and stop living as if everything is disposable and that the future will not be impacted.

So much of our trash ends up in the oceans, so think twice the next time you toss away something after you use it, and think about what the life cycle of that ridiculous plastic packaging wrapped around nearly everything that we buy. It's going to be a big change, but it's a change

we have to make, for the sake of our oceans, and for the ability of future generations to enjoy them.

How to help
We're all responsible for this mess, and it will take all of us to stop it from getting worse. It's time to completely rethink how we as a society use (or abuse) plastic. Here are some things that you can do right now:

- Every time you see litter, pick it up and dispose of it properly.

- Reduce, reuse, recycle -- you've heard it before, but now you know what happens when you don't. Be conscious of all that you buy, and be sure to avoid products with excessive packaging, especially in disposable products.

- Demand more and better recycling facilities in your area.

- Take part in local stream, river and beach cleanups -- or organize one yourself. Though these don't solve the problem, they are very effective at drawing attention to the greater problem offshore.

- If you live near the ocean, or a river that drains into it, your storm drains are probably washing garbage right out to sea. Be conscious of this and any other potential sources of marine litter in your area. Demand that these are eliminated.

- Be very conscious of your ecological footprint. Encourage change through your decisions and do not accept the current paradigm of use and waste.

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