## **ENVIRONMENT, ECOLOGY and ETHICS**

The relationship between living things and environment is the subject of ecology, a name derived from two Greek words meaning 'the study of home'. This term is apt, as all living beings have their particular home in Nature to which they are tied by many invisible strands. These include the interaction of all constituents of the environment, viz the soil to walk, crawl or burrow, the air they breathe or fly in, the rainfall or the light intensity they endure. Without the organic matter provided by living organism, there would be no soil other than inert mineral particles. The soil is important to plants, and plants in turn support animals. The carbon dioxide and oxygen both necessary for the existence of plant and animal life; are themselves produced by plants and animals and the cycle of life sustains itself.

Man is the only creature apparently standing aloof from the interaction of living things since he is able to make a home for himself anywhere in the world. But he needs air to breathe, water to drink and food to eat which are provided by nature. Apart from providing food for humans, plants have been the source of medicines in the treatment of various diseases. The diversity of plants and animals have also been the source for the products we use – fibre, leather, paper, to name

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a few. It also provides us with beautiful and breathtaking landscapes, exotic flora and fauna and natural climate control.

Preserving this diversity that have given so much is essential for the continued well being of the earth and its inhabitants. Larger the number of diverse species, the greater will be the resilience of the biosphere and its eco system. This by itself is a reason for protecting the endangered species. The loss of bio-diversity will ultimately make our lives poorer.

## **Present Scenario**

Increasing population, unsustainable development, consumerism, wastage and poor understanding of the interconnected life are causing irrepairable damage to the environment; and unnatural extinction of species. The loss of biodiversity during our own lifetime, accompanied by high levels of pollution of air and water are matters of serious concern, which ultimately pose a danger to our own survival. Humans have advanced technologically over the years, many a time, manipulating the environment to suit their selfish needs. But today as we reach what appears to be a critical threshold of the

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biosphere, we are realizing that we must change our attitude and habits, to save the planet. What we do today would affect tomorrow and life on earth for future depends on, how we take care of it today.

## Cultural and Spiritual Approach

The destruction of the biosphere and the deforestation of the Planet essentially forces us to enter an age of responsibility. This is ushering in a philosophy recognizing the spiritual values of the Plant and Animal kingdom. Traditional culture of our country has recognized this as we find holy places on every mountain or wherever the rivers meet. Such an approach that embraces nature as part of ourselves is necessary to save the planet for years to come. In this context "Vasudaiva Kudumbakam" meaning that the whole world is my family, assumes great significance. Unfortunately this has yet to take roots where it matters most and is rarely put into practice. Pilgrims go to Gangotri to pay homage and respects to the most sacred of our rivers and we continue to show reverence to places where the mighty river meet smaller ones and take them in her journey covering the great plains of India. The biggest congregation takes place at intervals in Allahabad, Prayag, during the Kumbh Mela and Ardh Kumbh Mela. Millions take bath in the holy river in spite of the fact that the condition of the water is left much to be desired. Ganga in Varanasi where pilgrims flock day in and day out, the holy river, we are told, is not fit even for bathing, because of effluent discharges upstream and by the sewage entry from the city itself. Our late Prime Minister, Sri Rajiv Gandhi had the foresight to launch the 'Ganga Action Plan'

but the work done subsequently left much to be desired. The BJP Government, both at the Centre and States, did not take up the work to the logical end as a result of which Ganga Mai remains impure and continues to be so till this This is indeed very sad and speaks volumes of the indifferent attitude of the people and the Government. Since the first action plan on Ganga cleaning did not achieve any results, the present UPA Government under the leadership of Prime Minister with the Chief Ministers of the concerned State Governments have initiated a ten year plan (National Ganga River Basin Authority) to clean the Ganga. The outlay is Rs. 15,000 crores. We can only hope that ultimately the sacred river will reach the desired levels of purity. Yamuna at the capital, Delhi, is another example. Some efforts are in hand to partially clean up the river in Delhi before the Common Wealth Games are scheduled next year.

The same callousness and disregard we show to our forest reserves and preservation of our national animal – Tiger. Twenty seven reserves were set up under "Project Tiger" by the late Prime Minister, Smt. Indira Gandhi. Apart from saving the much hunted animals from poachers and encroachers this project was also meant to preserve the forests as tiger needs large tracts of green cover for its survival. But now we see that Sariska in Rajasthan has no tiger and very few in another reserve Rathambore. If we do not take corrective measures, tigers will have the same fate as Cheetah which had vanished from our country. Many in cities ask "Where are the sparrows and vultures?" Perhaps our living style may provide an answer.

A peep into the amazing family of Bio Diversity.

The National Geography, Discovery and Animal Planet TV Channels are doing yeoman service for educating the young and old on the wild animals, their habits, habitats and how they take care of their young ones. coverage on the migration of animals and birds are breathtaking. Every year, during winter, caribous from Arctic Tundra migrate in large herds to greener pastures. But this is small when compared to the migration of a million wildebeests and lesser number of zebras in the African Savannha. They travel from Masai Mara National Park in Kenya to Serengity National Park in Tanzania covering a distance of about 600 miles every year facing the onslaught of predators and crossing the Mara river where crocodiles wait eagerly with their mouths open. A group of scientists follow them and they arrive at the conclusion that such migrations improve the health and reproductive capacity of the wildebeests and nature rejuvenates itself in both the parks.

One of the most fascinating facts of Nature is that of bird migration. When breeding is over and young ones reared, and the long dark nights of the winter accompanied by the Northern Cold Winds blow, migrating instincts of birds are awakened. Of all the migrants, none travels farther than the Arctic Terns. In groups, they cross the Atlantic to reach Europe and continue their flight through the coast of Africa and reach the coast of

Antarctica. When the weather changes there, they traverse the same route to return to Arctic covering a total of 20,000 miles. How they navigate and how high they fly assisted by the winds are marvels of nature which are yet to be fully explained. Birds, it seems, are equipped with instincts that may surpass our sophisticated instruments. The beauty, grace and the fluid pulse of the oceans are reflected in the flocking of sea birds, which is an indication of marine wealth living underneath.

The seemingly fragile thumb sized humming bird is a wonder by itself. It can tilt the angle of its wings to any degree by which it can remain steady while sucking out nectar from flower. It can even fly backwards. Ruby throated humming birds gather in Mexico and after a hearty meal of insects and nectar they launch across the Gulf of Mexico flying nonstop for 20 hours covering a distance of 500 miles to reach their destination! Similarly, butterflies cover long distances to reach Californian Coast to enjoy the warmer climate and exquisite flowers.

Under Water Life: Fifty years back very little was known about life under the seas and oceans. With the advances in breathing apparatus, paddles, swim suits fitted with helmets and equipped with under water high resolution cameras the sea explorers take photographs and give valuable information to us on marine life. Pressurised vessels with inbuilt armoured glass viewing windows are able to go deeper and reach depths where

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sunlight does not penetrate and water pressures are high. They show photos of self illuminating boneless transparent and colourful marine species never known to us earlier.

Down the South African coast where the gulf stream flows is a veritable treasure house of marine life. Sardines move in millions towards the Indian ocean. Whales gulp many of them in a few mouthfuls and the dolphins scatter them with their onslaught Sea birds fluttering above have a hearty meal of sardines. But these do not deter them. They regroup and continue their journey.

Green back turtles swim great distances to lay eggs on uninhabited islands in mid Atlantic Ocean. Hatchlings in thousands head towards the sea after breaking the shells but many of them are picked up by Pelicans and other sea birds. Few of them only reach the safe havens of the sea.

The coast of Patagonia in South America is the home for Elephant and leopard seals. Penguins in very large numbers, also live there. The leopard seals make a meal of many Penguins. But seals in turn are picked up by killer whales and meet their end. Many a time during low tide killer whales get stuck on sea shore and never return to sea.

Dare devil divers, off the coast of Australia, take pictures of dreaded sharks at very close quarters. They also bring us the colourful pictures of coral reefs, Octopuses and even giant squids. STEVE IRWIN, a famous explorer lost his life while photographing STING RAY, an elusive

creature little known to many. Recently, another photographer lived to tell his tale after bitten by a shark.

Master Story Teller: The Visuals, narration and exposition of Dr. David Attenborough, naturalist are the most sought after. "Attenborough narrates" is a regular Saturday feature in Animal Planet and the Discovery Channel shows "PLANET EARTH" periodically. He covers land and marine life from North to South Pole and also the avian species. He takes us to deserts, rain forests, Savannah region and also the Arctic and Antarctic. In one of the episodes he covered the entire Cat family from the South American jaguars to the biggest – SIBERIAN TIGER which are very few in numbers. He travels by Plane, microlight, jeep and many a time by walking and explaining the little known species of rodents, Insects and birds. In one of his masterly strokes he took us to the entire Himalayan range – from the snow clad mountains, to the regions where mountain goats and snow leopards live and lammergeier vultures having a wing span of 3 metres circle round in great heights. We were shown the Nanda Devi bioreserve with the valley of flowers and finally zeroed on the rain forest of Arunachal Pradesh, a land of colourful pheasants, brown coloured Pandas and acrobatic gibbons effortlessly jumping from tree to tree which no other animal can match.

His narration of birds and their flying ability was very educative. He showed the elegance of Swan in water and air, the initial struggles of Albatross to be air borne and its magnificent flight afterwards assisted by winds. Eagles can reach a height upto 20,000 feet and can spot a moving rodent from an incredible height of 10,000 feet. Osprey known as fish hawk picks up a big fish in one sweep by one leg and then transfer it between both the legs so that the speed and balance of flight are not affected. It is a sight to see Pelicans covering long distances in perfect formation and also its superb dive inside water and flight back with its catch in between the beaks.

## **Curtains down on BIO DIVERSITY**

The vibrant life as seen and captured by the Electronic media is in great danger as the spectre of global warming and climate change is looming large on the world at large. With the unlimited increase in the emission of green house gases, ocean temperatures are on the rise and the melting of ice in the Polar Regions and mountain summits are taking place without any respite. The habitats of many species of animals, marine life and birds are in danger of extinction and it is a matter of time before the magnificent animals like polar bear cease to exist. The colourful coral reefs below the surface of the tropical sees are in danger. In our country drought, un-seasonal rains and floods have created havoc. The flowering pattern of trees and the natural periods of bird migration have been altered. Himachal Pradesh famous for apples is unable to take care of the orchards with the rise in

temperature. The spawning habit of fish and their movements to safer havens have affected people who depend on them for survival. Maladives, Sunderbans the home of the famous Royal Bengal Tiger and the long coastal lines of our country are in danger of submerging under the rising levels of sea.

Various initiatives taken by the United Nations to reverse the trend by reducing carbon emissions from the developed world and halting the deforestation of Amazon and tropical rain forest of Indonesia are yet to make a dent. In this scenario the world summit at Copenhagen is scheduled during this month (December). Nothing much could be expected as there will be only platitudes and speeches and perhaps political statements as to what the intentions of each country are. Until and unless legal bindings on the scale and the exact quantity reductions in emissions are spelt out and taken up by developed nations in intent, spirit and execution, global warming can only increase with the resulting consequences.

One can only hope, that nations of the world take up urgent measures to reverse the trends for saving the planet from disaster. Developed nations have to discard their opulent life styles for the betterment of the have-nots and for the preservation of other species for the overall health of the vibrant planet Earth. Developing nations, especially the governments in terms of population – China and India – must play a leadrole.

The sooner they do the better would be the world.

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