

Role of Individuals & the Community in Conserving Biodiversity

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The 1992 United Nations Earth Summit in Rio de Janeiro defined *Biodiversity* as "the variability among living organisms from all sources, including, 'inter alia', terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems."

Let us have a quick look at some interesting facts –

Number of Known Species	: 1.4 million
Estimated Number of Species	: 5 million
Time taken for this Biodiversity to evolve	: 3.5 billion years
Natural Rate of Extinction of Species	: 1 per year
Rate at which Species are getting Extinct	: 10000 per year
Estimated Number of Species already Extinct	: 1 million
Tropical Forests Destroyed	: 40k square miles / year

As can be seen, the Planet and Biodiversity alike is threatened. This threat to the Planet and Biodiversity is a result of the onslaught of what has been termed as HIPPO, which stands for Habitat destruction, Invasive species, Pollution, Population and Overharvesting. This *acronym* was coined by Edward O. Wilson and in subtle terms reflects the gigantic nature of the problem.

Some other reports are also not encouraging. The *Living Planet Index (LPI)* which measures trends in populations of vertebrate species living in terrestrial, freshwater, and marine ecosystems around the world and is an indicator of the state of the world's biodiversity has given enough indications that the situation is very grim. The LPI in a nutshell says that the populations of terrestrial species and marine species declined by approximately 30 per cent each between 1970 and 2000, while the freshwater species fell by a massive 50 per cent during the same period. On the other hand, the *Ecological Footprint* which measures people's natural resource consumption had exceeded global biocapacity by 0.4 global hectares per person, or 21 per cent by 2001. This global overshoot began in the 1980s and has been growing ever since at an alarming rate.

David Orr, the celebrated crusader on environment issues had this to say on the state of the planet Earth way back in 1991 – "If today is a typical day on planet Earth, we will lose 116 square miles of rainforest, or about an acre a second. We will lose another 72 square miles to encroaching deserts, as a result of human mismanagement and overpopulation. We will lose 40 to 100 species, and no one knows whether the number is 40 or 100. Today the human population will increase by 250,000. And today we will add 2,700 tons of chlorofluorocarbons to the atmosphere and 15 million tons of carbon. Tonight the Earth will be a little hotter, its waters more acidic, and the fabric of life more threadbare."

In the backdrop of the above, the question that naturally surfaces is, “Are we fighting a losing battle to save the Planet and the Biodiversity it supports?” *Fortunately not* because,

- Our generation is the first one that has really become aware of the fact that we are causing irreparable damage to the planet - to the air, water and soil of the planet and to its biological resources. Ours is not the first generation to do damage to the planet, but we are the first to realize the extent of the problem.
- Ours is the only generation that can prevent a massive loss of biological diversity by learning to live on the planet without destroying it: learning to live, work, grow food, trade, and develop a sustainable way of life that serves the continuing needs of our descendants, and the other species present on earth, as well as ourselves.

In the movement to conserve biodiversity and save the planet, individuals and the community has to play an increasingly proactive role. Simply speaking, it's the time to join forces and act. Otherwise, it might be too late. Recent developments like global warming and increasing incidences of natural disasters in every corner of the globe – be it the recent earthquake in China or the devastating cyclones in the US and Myanmar and their impact in terms of loss of lives and property does not sound good. Nearer home, man – animal conflicts which are a result of mindless habitat destruction continue to make headlines with unfailing regularity. These are pointers to the precarious state the planet is in and demands our immediate attention.

A few things which individuals and the community may contemplate are:

- Increasing bio-capacity by protecting, conserving, and restoring ecosystems and biodiversity and maintain biological productivity and ecological services. Individuals can start by planting a tree and caring for it – a single tree will absorb one ton of carbon dioxide over its lifetime!
- Stabilizing and in the long term lowering world population
- Reducing per person consumption of goods and services – for e.g., avoiding disposables, using reusable items, driving less whenever possible, choosing public transport, biking, walking and carpooling
- Implementing comprehensive waste reduction plans and systems at the individual and community level which should include resource reduce, resource reuse and resource recycling
- Improving the resource efficiency with which goods and services are produced – adopting cleaner and greener technologies and promoting them
- Supporting public information and education campaigns on sustainability challenges and opportunities covering issues such as climate change, habitat destruction, pollution, etc.

In the end, here are some good things that are happening. In recent years, the global community has set clear targets for sustainability and biodiversity conservation. At the 2002 World Summit on Sustainable Development, governments adopted a plan to significantly reduce the loss of biodiversity by 2010. At the 2004 meeting of the United Nations Convention on Biological Diversity in Kuala Lumpur, governments agreed to set national and regional

targets for creating networks of protected areas, including new parks, which will help safeguard biodiversity. Furthermore, all 191 Member States of the United Nations have signed up to support the Millennium Development Goals, which not only address the root causes of environmental degradation – such as escalating poverty – but also include a specific goal on environmental sustainability. Indicators have also been developed, which will help monitor governments' progress on achieving these goals by 2015. The decision to award the Nobel Peace Prize to the Intergovernmental Panel on Climate Change (IPCC) in 2007 also shows that environment protection and biodiversity conservation is receiving the attention it deserves. We need to carry on with all these positive developments and this is where individuals and the community can play a significant role. After all, Planet Earth is the only home we have!

References:

1. <http://darwin.bio.uci.edu/~sustain/bio65/lec01/b65lec01.htm> accessed on 25.05.2008 at 1440 hrs
2. <http://assets.panda.org/downloads/lpr2004.pdf> accessed on 25.05.2008 at 1456 hrs