HAVE you ever considered that the water we drink from our taps may have been purified by a wetland or forest? Did you know that much of the food we eat depends on the services provided by a diversity of pollinating insects and animals?

Biodiversity may be a buzzword, but as a concept it lies at the heart of ecological research. **Bio** means life and **diversity** means variety. Biodiversity is life, your life is biodiversity and biodiversity is you. Biodiversity is the term used to describe the variety of life on Earth from genes to species to broader scale of ecosystems. It includes every plant and animal as well as micro-organisms such as bacteria and viruses. Biological diversity is not evenly distributed over the Earth’s surface.

The United Nations, in its 83rd plenary meeting, designated 2010 as the International Year of Biodiversity. It is a celebration of life on Earth and of the value of biodiversity for our lives. The celebrations of the International Year of Biodiversity are a unique opportunity to raise public awareness about the vital role of biodiversity in sustaining life on Earth, supporting ecosystem services and of its importance to human wellbeing and poverty reduction.

The United Nations also proclaimed May 22 as the International Day for Biological Diversity (IDB) to increase understanding and awareness of biodiversity issues.

### Why is Biodiversity Important?

Most of us spend the bulk of our lives in human made houses, office buildings, factories, cars, and other artificial environments that insulate us from nature. This insulated life can give us the illusion that we live our lives apart from nature and that we can control or manipulate nature at our will to meet our needs and wants. The truth is that none of us can afford to live apart from nature. We depend on nature for food, air, water, and virtually everything we use. Ecosystems provide us with a number of natural services.

The biodiversity in nature is essential to human existence. It plays a significant role in natural processes such as the purification of water and air, pollination, the absorption of carbon by trees and other plant life, renewed oxygen supply, natural pest control, flood and erosion control, and the absorption and detoxification of human and industrial wastes.

The rich variety of genes, species, and biological communities gives us food, wood, fibres, energy, raw materials, industrial chemicals, and medicines, all of which pour hundreds of billions of dollars into the world economy each year. The value of global ecosystem services is estimated at $16-$64 trillion. The Earth’s vast inventory of life forms and biological communities also provides free recycling, purification, and natural pest control services.

The identity of human cultures around the world is attached in varying degrees to wild species. Wild plants and animals are a source of beauty, wonder, joy and recreational pleasures for many people. Whatever the case may be, the cultural diversity is closely linked to wild species.

Biodiversity also has great aesthetic value, for instance, ecotourism, bird watching, wild life observations, pet keeping, gardening etc. Throughout human history, people have related biodiversity to the very existence of human race through cultural and religious beliefs.

"Voluntary simplicity is to be observed, which is based on Mahatma Gandhi’s principle of enoughness. The Earth provides enough to satisfy every person’s need but not every person’s greed. When we take more than we need, we are simply taking from each other, borrowing from the future, or destroying the environment and other species."

Biophilia

Biodiversity conservation cannot be brought about by enforcement by laws. It must come from within because we love the Earth and all living beings thereof.
Besides, biodiversity is also scientifically important for human survival. Every species can help scientists understand how life evolved and functioned and how it will continue to evolve on this planet.

Every country and region has three forms of wealth: material, cultural, and biological (biodiversity). The forests, rangelands, parks, wilderness, and aquatic systems, where the genes, species, and ecosystems making up biodiversity are found, are crucial sources of biological wealth that are today coming under increasing pressure from population growth and economic development.

People have used and abused life with all its diversity over the ages, but never had biodiversity been a focus of worldwide attention. The rich and powerful in the global community have just realized its enormous economic potential. Commercial exploitation of biodiversity has invariably meant its overuse and eventual destruction.

Protecting biodiversity and ecological integrity means protecting wildness. We need wild places where we can experience the bounties of nature and observe natural biodiversity, where we can enhance our mental and physical health by getting away from noise, stress, and large numbers of people. Every species here today contains genetic information that represents thousands to millions of years of adaptation to the earth’s changing environmental conditions and is the raw material for future adaptations.

The IUCN says, “We are facing a serious crisis in biodiversity, the elaborate network of animals, plants, and the places where they live on the planet.”

**Wonder Seven: Agencies Protecting Biological Diversity**

1. International Union for Conservation of Nature and natural resources (IUCN)
2. Species Survival Commission (SSC)
4. Trade Records Analysis of Fauna and Flora in Commerce (TRAFFIC)
5. Convention on Biological Diversity (CBD)
6. World Wide Fund for nature (WWF)
7. World Conservation Monitoring Centre (WCMC)

**Threats to Biodiversity**

The major factors leading to extinction of species and consequent loss of biodiversity are a) Habitat loss and fragmentation, b) Introduction of exotic species, c) Invasion of alien species, d) Over exploitation, e) Soil, water and
We need to focus on global CPR—Conservation (building societies based on conservation, not waste), Preservation (preserving what we can not replace), and Restoration (working with nature to help restore what we have degraded or destroyed).

David Brower

The Copenhagen (COP-10) slogan, “Life in harmony, into the future” articulates the need for coexistence between humans and biodiversity for the sake of future generations. The logo, in the form of origami, conveys the same message, by arranging diverse flora and fauna in a circular shape with an adult and child in the centre.

atmospheric pollution, f) Intensive agriculture, and g) Habit of thinking in terms of Monocultures.

The total number of species on the Earth is estimated to range from 5 million to 50 million, but only about 1.8 million species have so far been described. Humans have caused the extinction of many species and the rate of species loss is increasing. It is estimated that 14,000-40,000 species are being lost every year from the tropical forests alone. Since 2000, six million hectares of primary forests have been lost each year.

International Year of Biodiversity
It is to focus attention on the fast disappearing biodiversity and its consequences to human survival that the International Union for the Conservation of Nature (IUCN) is organizing the International Year of Biodiversity. The IUCN says, “We are facing a serious crisis in biodiversity, the elaborate network of animals, plants, and the places where they live on the planet.” The IUCN maintains the renowned Red List of Threatened Species based on which so many conservation decisions are made.

The International Year of Biodiversity’s logo is designed to convey the concept of discovery and realization. A host of symbolic iconographic elements are included within the design to depict the scope of biodiversity, which includes marine, flora and fauna aspects. Together, they demonstrate how biodiversity is life and how people realize their place within this journey.

The logo consists of three core components:

- The year “2010” that frames the campaign and the logo elements.
- The iconographic elements symbolizing biodiversity. These include fish, waves, a flamingo, an adult and child, and a tree.
- The title of the campaign, “2010 International Year of Biodiversity.”

The logo’s colours include two shades of green – one darker and the other lighter. The slogan for the International Year of Biodiversity is “Biodiversity is life. Biodiversity is our life.”

Goals of IYB-2010
The principle aims of the International Year of Biodiversity are to:

- Enhance public awareness of the importance of conserving biodiversity and of the underlying threats to biodiversity.
- Raise awareness of the accomplishments to save biodiversity that have already been realized by communities and Governments.
- Promote innovative solutions to reduce the threats to biodiversity.
- Encourage individuals, organizations and Governments to take immediate steps to halt biodiversity loss.
- Start dialogue between stakeholders for the steps to be taken in the post 2010 period.

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