

BIO-DIVERSITY

L.No	Title of Lesson	SKILLS	Activity
11	Bio-Diversity	Self Awareness, Critical Thinking, Problem Solving, Creative Thinking Decision making	Planting of Trees, Continue to keep Biodiversity

Meaning

The diversity of plants and animal provide us food, fuel, medicine, shelter and other essentials without which we cannot live. These species have evolved over thousands of years. This rich diversity is being lost at an alarming rate due to human activities. We can contribute in many ways in preserving these species, plants, animals and other living organisms. It is very important for us to know about various types of plants, animals and micro-organism.

Bio-diversity is a short form of biological diversity. In simple terms, bio-diversity is the total number of genes, species and ecosystems of a region. It includes (i) genetic diversity (ii) species diversity and (iii) eco-system diversity.

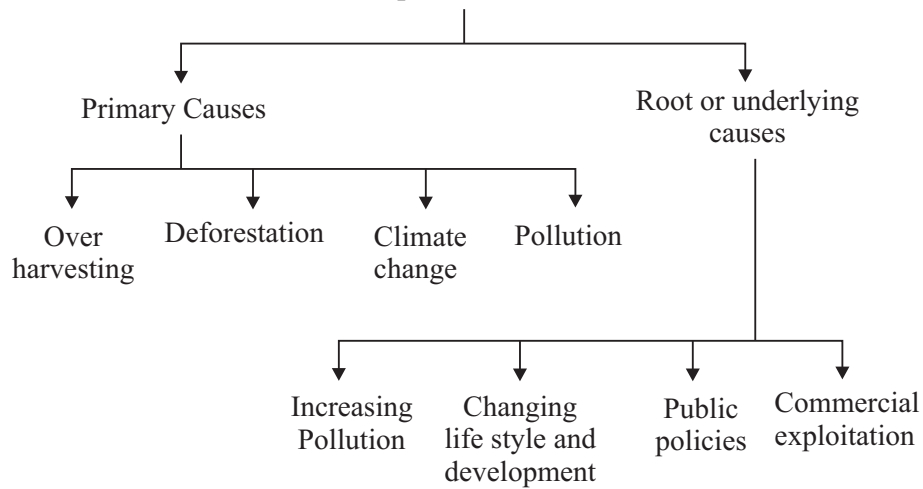
Status of Bio-diversity in India

Due to its unique location, India is endowed with rich bio-diversity. Although India has only 2.4 percent of the world's land area, but its contribution to the world's bio-diversity is approximately 8 percent of the total number of species. About 45,000 plants species comprising about 12% of the world's flora are found in Indian forests. Two of the twelve bio-diversity hot spots in the world are in India. These are in North Eastern region and Western Ghats.

Significance of Bio-diversity

- Living things are interdependent and interrelated in the form of ecosystem.
- Loss of any components of ecosystem affects other components of the ecosystem.
- We get food, water, fibre and fuel etc. from the ecosystem.
- It also regulates the climate.

**Causes of Loss of Biodiversity
(Loss of plants and animals)**



Natural Vegetation of India

Types of Forests	Rainfall	Temp.	Species of trees found	Regions	Characteristics
1. Tropical Evergreen	More than 200 cm	Warm	Rosewood, Ebony, Mahogany, Rubber, Jackwood, Bamboo	Western Ghats, Upper parts of Assam, Islands of Lakshadweep, Andaman and Nicobar	<ul style="list-style-type: none"> • Trees do not shed their leaves in any particular season. • Dense and mixed vegetation • Height of trees is 60 metres or more.
2. Tropical Deciduous	75 to 200 cm	Warm	Teak, Bamboo, Sal, Shesham, Sandalwood, Kheir, Kusum, Arjun, Mahua, Jamun etc.	Entire country except some parts of Deccan plateau, North Eastern region, Western and Eastern Ghats	<ul style="list-style-type: none"> • Moist widespread • Divided into moist and dry
3. Thorn forest	Less than 75 cm	High	Acacia, Euphorbia's babool, cactus, date and palms	North Western India, Interior parts of Peninsular India	<ul style="list-style-type: none"> • Dry climate • long roots, thick and shiny small leaves
4. Tidal Forest	Accumulate Water in the deltas		Mangrove or Sundari, Palms, Coconut, Kevra, Agar	Deltas of Sundarban, Mahanadi, Godawari, Krishna and Kaveri, Andaman & Nicobar Islands	<ul style="list-style-type: none"> • Branches of trees remain submerged in water • Flourish in fresh and salt water
5. Himalyan Vegetation	The vegetation changes according to altitude. The decreasing temperature with increasing altitude lead to varied types of vegetations.				

Need of Conservation of Biodiversity

We know that bio-diversity is fundamental for our existence. We look for food, water, fiber, and shelter in nature. All these components of ecosystem are interrelated and inter dependent. If any one component is disrupted, it would have disastrous effect and will make unbalance in the ecological system. Vegetation provides us food, oxygen, helps in preventing soil erosion, regulate climate etc. In the same way, wildlife plays an important role in maintaining balanced food. Hence, the conservation of biodiversity is of great importance for the survival of mankind.

Wildlife in India

India is rich in wildlife. It is estimated that about 80% of all known plant and animal species on the earth are found in India. Wildlife protection Act was passed in 1972 to save the wildlife. At present, there are 551 wildlife sanctuaries 96 National parks, 25 wetlands and 15 biosphere reserves. Besides these, there are 33 botanical Gardens, 275 zoological parks etc. Special schemes like Project Tiger, 1973 and Project Elephant, 1992 have been launched to save endangered species.

Evaluate Yourself

- Q. 'There is urgent need for conservation of bio-diversity. Justify this statement with suitable examples.
- Q. Distinguish between wildlife sanctuaries and National parks.
- Q. State any four characteristics of tropical evergreen forests.