

Unit 4 Lecture 5

India as a megadiverse nation

Megabiodiversity is a concept first proposed in a paper at the Smithsonian's 1988 biodiversity conference. This approach looks at biodiversity priorities by political units, in this case sovereign nations, rather than by ecosystems. It recognizes that a very small number of units (17 countries out of a global 200+) are home to an inordinately large share of world's biodiversity (USA, Mexico, Columbia, Venezuela, Ecuador, Peru, Brazil, Democratic Republic of Congo, South Africa, India, Madagascar, Malaysia, Indonesia, China, Philippines, Papua New Guinea and Australia). Most of the megadiversity areas are large, but several, such as those in Madagascar, the Philippines and Ecuador pack high diversity into relatively small land areas. They have enormous responsibility at the same time, they should consider the biodiversity to be one of their most important long term economic assets.

INDIA

India is the seventh largest country in the world and has the second largest population. There is much diversity in the geographical features: the towering Himalayas and the extensive river plains in the north, the Thar desert in the west, the Deccan Plateau in the centre and the south, the coastal plains to the east and west and the numerous islands. The country has 26 states and 6 union territories.

The rising population has forced the rural poor to borrow against the future by depleting the natural resources. It was reported that the population reached one billion people in 2000, comprising about 16% of the world's population. The problem is further compounded by the high cattle population, estimated to be 450 million; most of these animals have a very low productivity but are allowed to graze freely in forest areas, causing the degradation of forests. It was estimated that the cattle population was 18% of the cattle population in the world. This has led to severe erosion, loss of soil, and floods in the lower plains, in addition to the destruction caused by shifting cultivation. As a result, the demographic and economic landscape of the country is plagued with poverty and underemployment. Agricultural productivity is only 1 ton per ha against the actual capability of 4 ton per ha. How to achieve the optimum land use, including soil and moisture conservation measures, are the main challenges confronting the policy and decision-makers. To reverse the process of degradation and for the sustainable development of forests, the Government has prepared the National Forestry Action Programme (NFAP).

Sixty percent of the forests are located in ecologically sensitive zones. These forests need to be managed in a way to ensure that they are ecologically protected and maintained, as well as sustained at the highest productivity level to meet the growing population's burgeoning demands for fuel, food, fodder, and timber.

India is one of the 17 mega diversity countries, commanding 7% of the world's biodiversity and supporting 16% of the major forest types, varying from alpine pastures in the Himalayas to temperate, sub-tropical, tropical forests, and mangroves in the coastal areas. But nearly half of the country's area is degraded, affected by the problems of soil degradation and erosion. The most common forms of degradation are wind and water erosion, and salinity. About 146 million ha are affected by wind and water erosion, and 7 million ha have become degraded due to excessive salts. About 8.5 million ha are under water logging and about 10 million ha are affected by shifting cultivation.

According to the Government statistics, nearly 22%, or 65 million ha, of the country's land have been recorded as forests, but only 19.5% have forest or tree cover, which is much less than the goal of 33% set by the National Forest Policy, 1988.

As a result of the National Forest Policy, 1988, the mechanism of Joint Forest Management (JFM) was legalised in 1990. Its principal aim is to ensure environmental stability and maintenance of the ecological balance through the preservation and rehabilitation of forests, while providing for fuel wood, fodder, Non-Wood Forest Products (NWFPs), and small timber needs. The JFM has since been institutionalised by most of the States.

The Ministry of Environment and Forest is a cabinet ministry in the government of India, responsible for overseeing environmental policy and procedures, as well as administration of the national parks of India. It also controls the conservation and survey of the flora and fauna of India, forests and other wilderness areas, the prevention and control of pollution and the afforestation and regeneration of degraded areas. India has worked on creating 'landscape conversion' which include wildlife reserves, communal forest, some private land. India has launched specific programmes, known as Tiger project and Project Elephant to safeguard the Bengal tiger and the elephant. One of the major mega diversity countries in the world, India houses a good number of wildlife species found nowhere else on the globe. India is an exciting place to be for wildlife enthusiasts and nature lovers from around the world. The reasons are simple but exciting.

India currently has 80 National Parks. These National Parks in turn houses largest number of tigers found in the world, largest number of one-horned rhinos found in the world, now almost extinct Asiatic Lions, and a large percent of elephants. These wildlife animals are but only a part of more than 500 species of mammals that have made India their natural home. Apart from the mammals, India is also blessed with over 2000 species of birds, over 500 species of reptiles and amphibians and around 30000 species of insects including colorful butterflies.