

# BIODIVERSITY PARK: AN INNOVATIVE APPROACH FOR GREEN ENVIRONMENT

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## ABSTRACT

The present paper deals with innovative and sustainable approach of green environment with reference to conservation of biodiversity and by creation of biodiversity Park. Biodiversity is an urgent need of today and tomorrow. It encompasses not only ecosystems population and species but the different subunits of species, each possessing unique characteristic attributes. Protection and conservation of biodiversity is not only a matter of emotion or aesthetics but it is very important for human as well as the entire ecosystem. We have already lost many species that once flourished in this environment. If not properly conserved, the present biodiversity will be drastically reduced in the face of the rapid development that is taking place. The monitoring of biodiversity is an important aspect to realize the sign of changes. But such a monitoring cannot be done without creating a database of flora and fauna of the areas concerned. Biodiversity Park would serve the objectives of all the above issues in future. The main objective of such kind of park is to conserve the biodiversity of the specific area and to maintain the genetic stock available therein. In biodiversity Park, special thrust is also to be given for the conservation of rare, threatened and endangered species. The present work compiles aims and objectives of establishing a biodiversity park and its importance for the whole arena of universe.

**Keywords:** Biodiversity, Biodiversity Park, Conservation

## 1. INTRODUCTION

Biodiversity is the variability among living organisms including terrestrial, marine and aquatic ecosystems and the ecological complexes. This includes diversity within species, between species and of ecosystem. It forms the foundation of the vast array of ecosystem services that critically contribute to all human beings. Biodiversity is important in human managed as well as natural ecosystems. It is the foundation of ecosystem services to which mankind is intimately linked. The term 'biological diversity' or 'biodiversity' refers to the variety of life on Earth. It denotes to the wide variety of ecosystems and living organisms as animals, plants, their genes and habitats. The earth and evolution processes are very ancient phenomena. The concept of biodiversity has its origin in the threshold of 1970. It is crucial for the functioning of ecosystems like oxygen, food, fresh water, fertile soil, medicines, shelter, protection from storms and floods, stable climate and recreation.

The word "biodiversity" is a contracted form of the term 'biological diversity'. The Convention on biological diversity defines 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 a part; this includes diversity within species, between species, and of ecosystems."

Thus, biodiversity includes genetic variation within species, the variety of species in an area, and the variety of habitat types within a landscape. Biological diversity is of fundamental importance to the functioning of all natural and human-engineered ecosystems, and by extension to the ecosystem services that nature provides free of charge to human society. Living organisms play central roles in the cycles of major elements (carbon, nitrogen, and so on) and water in the environment, and diversity specifically is important in that where these cycles require numerous interacting species.

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Loss of biodiversity not only reduces the availability of ecosystem services but also decreases the ability of species, communities, and ecosystems to adapt to changing environmental conditions. Biodiversity is nature's insurance policy against disasters. Some people also include human cultural diversity as part of the earth's biodiversity. The variety of human cultures represents numerous social and technological solutions to changing environmental conditions.

Biodiversity Parks are unique landscapes of wilderness where ecological assemblages of native species in the form of biological communities are recreated and maintained over few hundred hectares of degraded or marginal lands. In other words, Biodiversity Parks are nature reserves that harbor natural heritage of the area and have conservation, educational and cultural values and enhance the quality of environment in urban centers. The underlying principle of the Biodiversity Park is to recreate self sustaining ecosystems with native flora and fauna characteristic of the area for enhancing the quality of urban environment

## 2. ROLE OF BIODIVERSITY PARK

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Biodiversity Park is nothing but the effort to make balance between the nature and the mankind. As it is clear that the most important factor behind extinction and disappearance of any flora and fauna is human population and such kind of unbalance has disturbed the whole ecological and biological world. Biological diversity is a precious usual resource intended for the continued existence of mankind, a slow decrease of which might consequence inside vanishing of class economic worth in the direction of the person contest. The imperfect protection resources obtainable have to be listening carefully tactically on top of opportunities probable toward giving way the most conservation advantage. Conserving biodiversity is concerned with restoring the equilibrium between humans and atmosphere.

The Biodiversity Park has been established keeping in view so many points regarding conservation of flora and fauna. Some of the important roles of Biodiversity Park are :

- It serves as nature reserve for the conservation of natural heritage of the city.
- It enhances the quality of urban environment.
- It serves as hub for education, cultural and conservation activities.
- It connects biodiversity to the city and people.
- It promotes eco-tourism.
- It creates livelihood for local communities.
- It serves as living laboratory for understanding the ecological processes and functions.
- It buffers the local weather and serves as sink for Carbon-di-oxide and urban pollutants and serves as adaptation to climate change.
- It preserves the rare endemic and threatened plant and animal species of the area.

### 3. AIMS AND OBJECTIVES

The establishment and development of a biodiversity park has some aims and objectives. Such kind of park is not only the centre of recreation but also the centre of conservation of all kinds of flora and fauna including the extinct and endangered one. Some of the important aims for development of Biodiversity Park are:

- To conserve the genetic stock available at the existing site of the park
- To select the species of rare, threatened and endangered plants of Jharkhand /India whose population has dwindled considerably in their natural habitat and are likely to get extinct, if suitable conservation measures are not taken immediately
- To establish a Botanical Garden for public awareness and environmental education with special emphasis to economically important and endangered species of the region
- To compile the relevant data to prepare and publish “Green Book” for the species which have been conserved and multiplied successfully in the botanical garden of the park
- To provide a suitable research/education ground for the local public, students and researchers in order to understand the biodiversity of Jharkhand and the local ecosystem

### 4. DISCUSSION AND CONCLUSION

Biodiversity Park has been the necessity and integral part of our environment for proper functioning and existence of ecological world. Biodiversity is the heritage of nature and it should be conserved both for welfare of the human population in particular and the natural environment in general. The establishment of Biodiversity Park is one of the innovative and positive approaches to promote the conservation of natural resources in urban matrix. Due to increasing industrialization, human population, overgrazing and urbanization, the biological diversity needs strong management strategies and the establishment of Biodiversity Park is one of the strongest efforts in this field. It is necessary for protection, conservation, propagation and extension of the genetic resources of the ecosystem. It needs technical and other important inputs too. A biodiversity park must have plants and propagules of different species, collected from all the parts keeping in view that they are also the integral part of this atmosphere. Much more stress should be given on the endangered and threatened species.

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