

State Biodiversity Park, Tendong, South District

LOCATION

Tendong State Biodiversity Park is located in South District, and lies about 70 km to the west of Gangtok and 14km north of the district headquarter, Namchi. This is in the southern part of the Maenam - Tendong ridge, which virtually bisects Sikkim longitudinally. The proposed Tendong State Biodiversity Park occupies the northern aspect of this ridge, between Gyanchung and Damthang, below the state highway, and is very accessible. It is adjoining to the Temi Tea Garden.

AREA AND TOPOGRAPHY

The total area of the park is 255 ha and the altitude varies from 1400 masl to 2050masl, aspect being north. Topography is hilly, with flat land only in patches. A number of streams pass through the area.

FORESTS, FLORA AND FAUNA

The Tendong State Biodiversity Park comprises of Middle and Upper Hill Forests. There are existing groves of Walnut, Chestnut, Oak and Alder. Since it has been carved out of a Reserve Forest, Eifel Tar R.F., the existing area is very rich in natural resources. Barking Deer, Flying Squirrels, and a variety of lesser mammals inhabit this rich area. The avifauna diversity is also very rich.

BIODIVERSITY IN BRIEF

India has two out of the 18 BIODIVERSITY hot-spots in the world, which are in the Western Ghats and Eastern Himalayas. Sikkim, covering just 0.2 % of the geographical area of the country, has tremendous biodiversity and has been identified as one of the HOT-SPOT in the Eastern Himalayas. The Sikkim Himalayas falls under the Himalayan (2) Bio –geographic Zones and Central Himalaya (2C) Biotic Province. As per the Champion & Seth 1968 new classification of Forests Types, about 9 Types of Major Forests Types are found in the State. Sikkim Himalayas has more than 26% of flowering plants of the country and is very important phytogeographical reserve of the country.

Biome is a large ecological region characterized by similar vegetation and climate. Bio-geographical region is a large region of the earth with distinct flora and fauna. Phytogeography is the study of plants and their geographical distribution.

- There are 10 bio-geographic zones & 25 biotic provinces--- which have 16 major forests types & > 200 sub types as per (Champion & Seth 1968).
- Sikkim falls under “Himalayan (2) Biogeographic zone & Central Himalaya (2c) biotic province----having about 9 types of forests types (Champion & Seth).

Aims and Objectives

The main objectives of the proposed Tendong State Biodiversity Park would be:

1. To conserve the genetic stock available in the existing site of the garden.
2. To select the species of rare, threatened and endangered Sikkim plants from the publication of Botanical Survey of India and other sources whose population has dwindled considerably in their natural habitat and are likely to get extinct, if suitable conservation measures are not taken immediately.
3. To multiply the species introduced and established under ex-situ condition either by seeds or by vegetative methods including mist propagation, or air layering or by tissue culture techniques.
4. Attempts will also be made to increase the population of such rare, threatened and endemic species for rehabilitation to their natural habitats and other experimental gardens for conservation.
5. To reintroduce the suitable species preferably medicinal and other ethnobotanically important plants in different ecological niches at higher altitudes with special reference to north and east Sikkim where the land has already been denuded considerably.
6. To elaborate on the programs of the botanical gardens for public awareness and environmental education with special emphasis to economically important, horticulturally important and endangered species of the region.
7. To compile the relevant data to prepare and publish "Green Book" for the species which have been conserved / multiplied successfully in the botanical garden.

Management Strategy

The Tendong State Biodiversity Park will be under the Department of Forest, Environment and Wildlife, Government of Sikkim for the protection, conservation, propagation and extension of the genetic resources of the state. The technical inputs may be provided by Botanical Survey of India, Sikkim Himalayan Circle and other scientific institutions.

1. The foremost task would be to safeguard all the existing genetic material by fencing the boundary of the park.
2. Plant and propagules of different plant species, will be collected from all parts of the state, with special emphasis on the sub-tropical and temperate species.
3. The material for investigation under the proposed project will be rare, endangered and threatened species of Sikkim flora.
4. Specific sections will be set up focusing on certain select families of interesting and endangered taxons e.g. orchid conservatory, fern house, Bamboo and cane grove, medicinal plant section, rock plants section, sacred plants of Sikkim, Wild Relatives of economically important plants, endangered plants section, cobra lily section,

Zingiberaceae section, canopy walk for epiphytes, natural pond for amphibious and hydrophytes etc.

5. A propagation center will be setup for the multiplication of plants. This center will consist of a rooting chamber, a mist chamber, a hardening chamber, a platform for making the potting mix and other related sections. Observations on all aspects covering seed germination, rooting growth performance etc will be compiled methodically.
6. The available facility of Biotechnology Laboratory of the Department of Science and Technology, Government of Sikkim, will be used for mass multiplication of the plants of special interest.
7. An interpretation center will be setup, for educational awareness, interpretation and extension of the diverse flora and fauna of the state.
8. Booklets, pamphlets and reports at intervals on the species under ex-situ conservation will be published and released for education and awareness purpose.
9. It is proposed to have a management committee under the chairmanship of PCCF – cum- Secretary, Department of Forest, Environment and Wildlife, along with other members from different fields.