

**Biodiversity Parks: Examples of Innovation and Best Practices
for Biodiversity Conservation
Centre for Environmental Management of Degraded Ecosystems (CEMDE)
University of Delhi**

The two major landforms of Delhi - River Yamuna and Delhi Ridge - are life supporting systems of Delhi and used to provide ecological goods and services to the society in the past but now lost their life supporting potentials due to urbanization. The question is how to bring back the pristine glory of the highly degraded landscapes of Delhi ridge and riverscape of Yamuna. Delhi Development Authority came to rescue the natural heritage of Delhi by the establishment of Biodiversity Parks in collaboration with the Centre for Environmental Management of Degraded Ecosystems, University of Delhi. This is a major outreach programme at the University of Delhi and is fully funded by the Delhi Development Authority. A team of scientists under the leadership of Professor C. R. Babu (Professor Emeritus) has been developing a network of Biodiversity Parks through an innovative approach – ecological assemblages of species that form self-sustaining communities on degraded/barren landscapes. Today there are 6 Biodiversity Parks spread over an area of 1000 ha. in Delhi (i) Yamuna Biodiversity Park, (ii) Aravalli Biodiversity Park, (iii) Neela Hauz Biodiversity Park, (iv) Northern Ridge (Kamla Nehru Ridge), (v) Tilpath Valley Biodiversity park and (vi) Tughlaqabad Biodiversity Park.

These parks are first of their kind in India and perhaps in the world, and serve as ecological models for conservation of natural heritage in urban landscapes. In fact, the two biodiversity Parks – the Yamuna Biodiversity Park and the Aravalli Biodiversity Park are fully functional and serve as Nature Reserves with more than 3000 species of plants and animals. The two Biodiversity Parks not only serve as repositories of approximately 50 threatened communities of the Yamuna river basin and Aravalli hills and as ideal alternative habitats for migratory and resident bird species, but also generate wide range of ecological services – (i)

enriching human microbiome which is critical for preventing health risks and thereby reducing public health burden, (ii) serving as effective filters for point and nonpoint source air pollution, (iii) recharging ground water, (iv) impounding flood waters and preventing of surface run off, (v) buffering local weather, and contributing to climate resilience to the city, (vi) serving as an instrument in promoting environmental education among students of schools, colleges and Universities and public, (vii) providing recreation to the public and (viii) preserving the vanishing gene pools of plants, animals and microbes

All the biodiversity Parks are living laboratories for teaching and research in wide range of areas of field biology, nature conservation and environmental education.

In fact, 1000's of students from schools, colleges and Universities located in National Capital Region and students from professional colleges across the country visit both the Parks annually. Today the Parks are known internationally and many foreign students are also keen to use these Biodiversity Parks for their project works. The Ministry of Environment, Forests and Climate Change has already approved the scheme for establishing Biodiversity Parks across the country through NABARD under National Adaptation Fund for Climate Change. In fact, the NORWAY Government is keen to disseminate the lesson learned from the development of Biodiversity Parks of Delhi across the globe through a joint collaborative project. The Biodiversity Parks Programme is fully funded by Delhi Development authority.

University of Delhi is probably the only university in the country having such large conservation outreach program. The University is proud for creating Self-Sustainable Nature Reserves with Cultural, Educational and Conservation Values in Urban Landscapes.