

Pakistan's Report for the International Coordinating Council of the Man and the Biosphere Programme (MAB-ICC) to be held in Paris June, 2022

Introduction

Pakistan has declared two Man and Biosphere reserves:

- i. Ziarat Juniper Forest
- ii. Lal Suhanra Biosphere Reserve

Given the ecological and sociocultural significance, Pakistan's largest juniper forest is on high priority in the conservation agenda. **Declared in** 2013 and covering over 110000 hectares area, is home to the largest stand of endemic juniper forest (*Juniperus excelsa polycarpus*) in Pakistan. The area has rich biodiversity resources including many endemic faunal species. Anthropogenic pressures remain a significant challenge.

Lal Suhanra Biosphere Reserve is part of the Cholistan Desert in Punjab Province of Pakistan. This arid landscape is rich in biodiversity. Due to climatic and anthropogenic factors, there remain a need to make efforts for restoration of species and habitat. Marginalized communities in the area need projects and programs for social uplift.

The ecological and social aspects of these areas may please be perused at UNESCO's link: <https://en.unesco.org/biosphere/aspac#pakistan>

The present report updates information regarding the status and interventions carried out in the recent past. Further, it highlights the challenges and information about other areas to be considered as MAB.

Update on Existing MAB Sites:

i) Ziarat Juniper Forest

The interventions carried out in the Juniper Forest Biosphere Reserve focused on the establishment of an endowment fund for the sustainability of the various interventions. The fund was established using the provincial resources worth Rs. 20 million. Some of the areas that need further efforts include:

1. Cultivation of medicinal plants
2. Breeding facility for other species of wildlife
3. Women empowerment through cottage industry
4. Facilitation for low-lying agriculture/livestock areas.
5. Reducing pressures on natural resources through alternate energy solutions and capacity building of youth for alternate livelihood.

Efforts have been made in areas surrounding the MAB site to conserve the natural environment and emancipating pressure on the natural resources. Recently, under Protected Areas Initiative (PAI) of Ten Billion Tree Tsunami Program (TBTP), planning for establishment of forest academy/training institute is under way. Similarly, under TBTP, tree plantation activities on privately owned areas was carried out. Planting local varieties in these barren areas will surely help to reduce pressure on the natural resources of the MAB site. Similarly, some six development schemes amounting to Rs. 500 million are under implementation for conservation and habitat improvement in the area.

ii) Lal Suhanra Biosphere Reserve

There were six components of Management Plan made for Lal Suhanra Biosphere Reserve using PROVINCIAL financial resources. The activities were focused on the promotion of ecotourism and improving population of main species. The 42 blackbucks that were first introduced for captive breeding in 1972-1980 have increased to about 540 animals. Out of these, 25 animals are present in pre-release pen for subsequent. A project aiming at establishment of pens for blackbuck is already completed.

Eco conservation and preservation of Lal Suhanra MAB & National Park is an approved project worth Rs. 120 million from domestic resources [is it increased now?]. Aims of this two-year project are: Forestry related activities, infrastructure development and increasing mobility of staff for monitoring. The project will lead towards re-introduction of Blackbuck and Chinkara in the area.

Further development of Lal Suhanra National Park through a project-based intervention worth Rs. 205 million and covering 3 years' time is under the process of approval. The objectives of the project fall in the scope of MAB: socio-economic uplift of communities through ecotourism and developing Patisar Lake. The later is a water body in the center of the park, is ideal for bird watching. In mid-winter, the lake is regularly home to between 10,000 and 30,000 ducks and common coot. The significant outcome of the project will be rehabilitation of Lion Safari. A 330 Acres of land will be developed for reintroduction of ungulates including Blue Bull and Deer species.

In another initiative right within the park area, three ungulate species (nil gai, black buck and chinkara) and rehabilitation of houbara is under way. The activity was supported by Houbara Foundation. Where the focus remains on research and breeding of the species in 60 sq. km area (36000 acres). Further 7x12 Sq km 84 Sq. km area is added for the black buck release.

Though not in a close vicinity of MAB Areas, some interventions in the region will surely help in reducing pressure on biological resources of the reserve. One such intervention is development / rehabilitation of water pond: Budh-ber, for ungulates species as well as water for human & livestock use will be made available. In all the project activities as well as conservation activities, partial employment for forestry related activities will benefit the local and marginalized communities.

Management of an area for biodiversity as well as socioeconomic uplift of communities is a challenge due to ownership especially while working for MAB. A process is set in where roles and responsibilities for various stakeholders will be redefined.

Other interventions:

The proposed Indus Dolphin MAB: Sub-National Government of Sindh intends to declare Indus Dolphin MAB. Blind Indus Dolphin (*Platanesta minor*) an endemic species is experiencing an increase in population. The authorities are developing a management plan to address various threats to the species

Some initial work is carried out on Indus Dolphin Biosphere Reserve but certain additional efforts will help in the completion of the formalities for developing and submitting the dossier. It is planned that WWF Pakistan will support Subnational government in completion of the formalities regarding declaration of Indus Dolphin habitat as a Biosphere Reserve.

Declaration of State Biosphere Reserve- Neelum (SBRN): In compliance with the decisions made during 4th MAB committee meeting, Subnational government of AJK has declared State Biosphere Reserve- Neelum (SBRN). Snow Leopard Foundation and IUCN Pakistan are helping in developing the management plan for the SBRN. The area is rich in biological diversity and local communities sharing the habitat will get additional benefits while the area is conserved as Biosphere Reserve.

Proposed Pallas Valley Biosphere Reserve: Sub-National Government of KP intends to make arrangements for declaration of Pallas Valley Biosphere Reserve. The area is rich in biodiversity resources. The 5th National MAB committee meeting was informed about the efforts made for consulting local communities for the designation of the area as a Biosphere Reserve. The issues will be addressed through the involvement of social scientists.