

Biodiversity of Pakistan

Status trends and threats

In the perspective of

Fourth National Report to CBD

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1-12-2008

Geography of Pakistan

Geography of Pakistan Location of the Country on the Globe

Pakistan lies in Southern Asia,
bordering the Arabian Sea,
between India on the east and
Iran and Afghanistan on the
west and China in the north

Area:
total: 803,940 sq km
land: 778,720 sq km
water: 25,220 sq km



Location of the Country on the Globe



Pakistan's Biodiversity

– Habitat Diversification

- 0 levels to 8000+ m asl giving rise to a great variety of habitats in
- High Mountains, Wetlands, Deserts, Coastal Area
Diverse Habitat types associated with the above

- Species Richness and
- Endemism

Species Richness:

- Some 6000 species of plants out of which 7% are Endemic to Pakistan
- 200 Species and subspecies of Mammals
- 666 species of Birds, many of which migratory and some Endangered
- More than 500 species of Fishes
- Diverse Reptilian Fauna
- 16 species of Anuran Amphibians
- Invertebrates???

SPECIES & HABITAT LOSS

Highly correlated with Human population increase.

Population also influences directly and indirectly as well as socially & culturally on the habitat destruction.

To overcome this, well developed Protected Area System is developed

Earlier endeavors

- PA System
 - More than 11% of the land is classified as some sort of PAs:
 - Sanctuaries
 - Reserves
 - National Parks
- Deep roots in the Subcontinent
- Mughal Era
- British Rule
- Forest Acts (1927)
- Land Revenue Act (1967)
- Fisheries Act
- Forestry resources shared between state and the communities

Recent Initiatives:

- Bar Valley Ibex and Habitat Conservation (NAs)
- Torghar Conservation Project
- Pallas Valley Conservation Project
- Protected Areas Management Project
- PAMP
- Wetlands
- Mountain Areas Conservancy Project
- Urial Trophy Hunting in Punjab
- Species assessment (IUCN-GoP)
- Information storage and retrieval (PMNH)

Convention on Biological Diversity

Three components of the CBD:

- a) Conservation
- b) Sustainable Use
- c) Equitable Benefit Sharing of Genetic resources

Program areas under CBD and compliance

- Quite a few benchmarks on compliance to CBD's Provisions in Pakistan
- BAP
- National Reports: especially third report
- Communication of 2010 targets
- Projects: PAMP, PMAC, MACP,
- Developing indicators? A component of PAMP

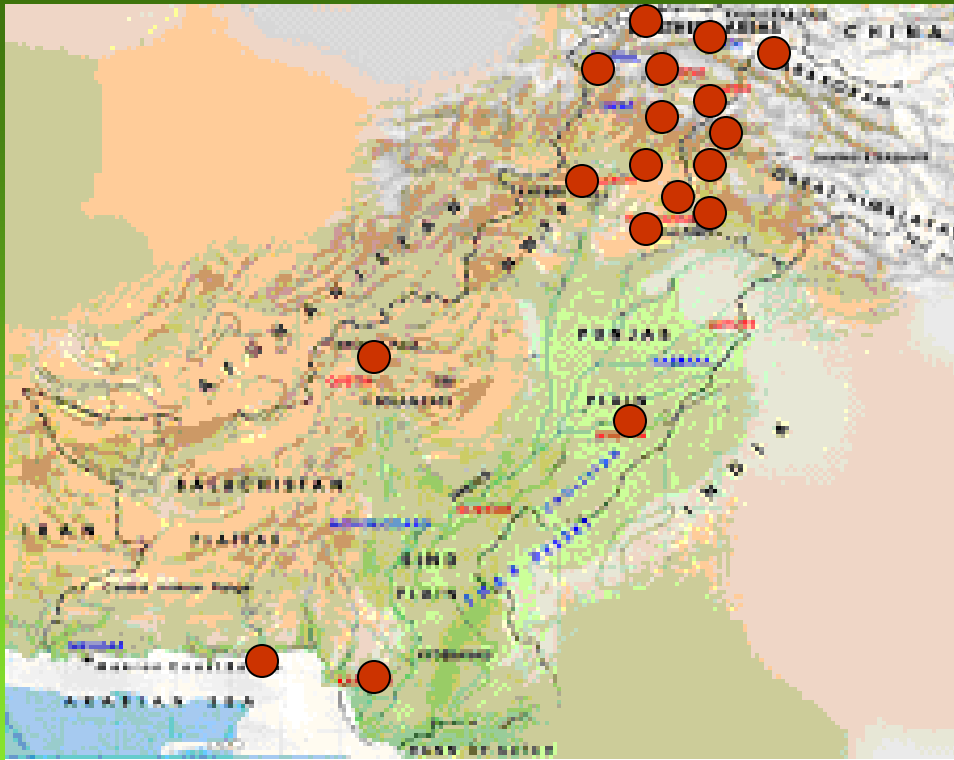
Program areas and brief status:

- **Agricultural Biodiversity** (NARC and Provinces)
- **Dry and Sub-humid Lands Biodiversity**
- **Forest Biodiversity** (2030 vision? projects)
- **Inland Waters Biodiversity** (project and Provinces)
- **Island Biodiversity**
- **Marine and Coastal Biodiversity**
- **Mountain Biodiversity** (Project approach)

Cross cutting issues and status:

- 2010 Targets? (communication with actors across the country)
- ABS TK etc (controversy demands enhanced communication)
- Climate Change issues (forestry sector projects)
- CEPA (working underway on a mega proposal)
- Ecosystem Approach
- GSPC (little work done)
- GTI (Little could be done except collaboration with R&D institutions)
- Monitoring, Indicators and Assessments (C&I exercise)
- IAS (initiated a project in collaboration with CABI)
- Protected Areas (Lot more to work)
- Tourism and Biodiversity (pilot study initiated at 3 PAs)

RANGE OF REPRESENTATIVE ECOSYSTEMS



Ghamot AJK (2004)
Pir Lasora AJK (2005)
Toli Pir AJK (2005)

Ayubia NWFP (1984)
Chitral Gol NWFP (1984)
Lulusir NWFP (2003)
Saifulmalook NWFP (2003)
Sheikh baddin NWFP (1993)
Central Korakaram NA (1995)
Deosai NAs (1993)
Handrap shandoor NAs (1993)
Khunjerab NAs (1975)
Hingol Balochistan (1997)
Hazarganji Balochistan 1980
Chinji Punjab (1987)
Lal sunhara Punjab (1972)
Kirthar Sindh (1974)
Margalla Islamabad (1980)
Machiara AJK (1996)

Management of PAs

- A. Government managed protected areas
- B. Co-managed Protected Areas
- C. Private protected areas

Human and Cultural Environment

- Population and density
- Professions and dependence on Natural resources
- Ancient civilization and evolution of indigenous practices and norms
- Cultural, Crop and Livestock diversity
- Issues affecting the natural resources and forests and biodiversity
 - Urbanization and infrastructure development
 - Poverty and low literacy
 - Enhanced dependence on natural resources
 - Legal and administrative issues