

Islamic Republic of Pakistan

Collaborative Management of Protected Areas

**First Asia Parks Congress,
Sendai, Japan,
13-17 November, 2012**

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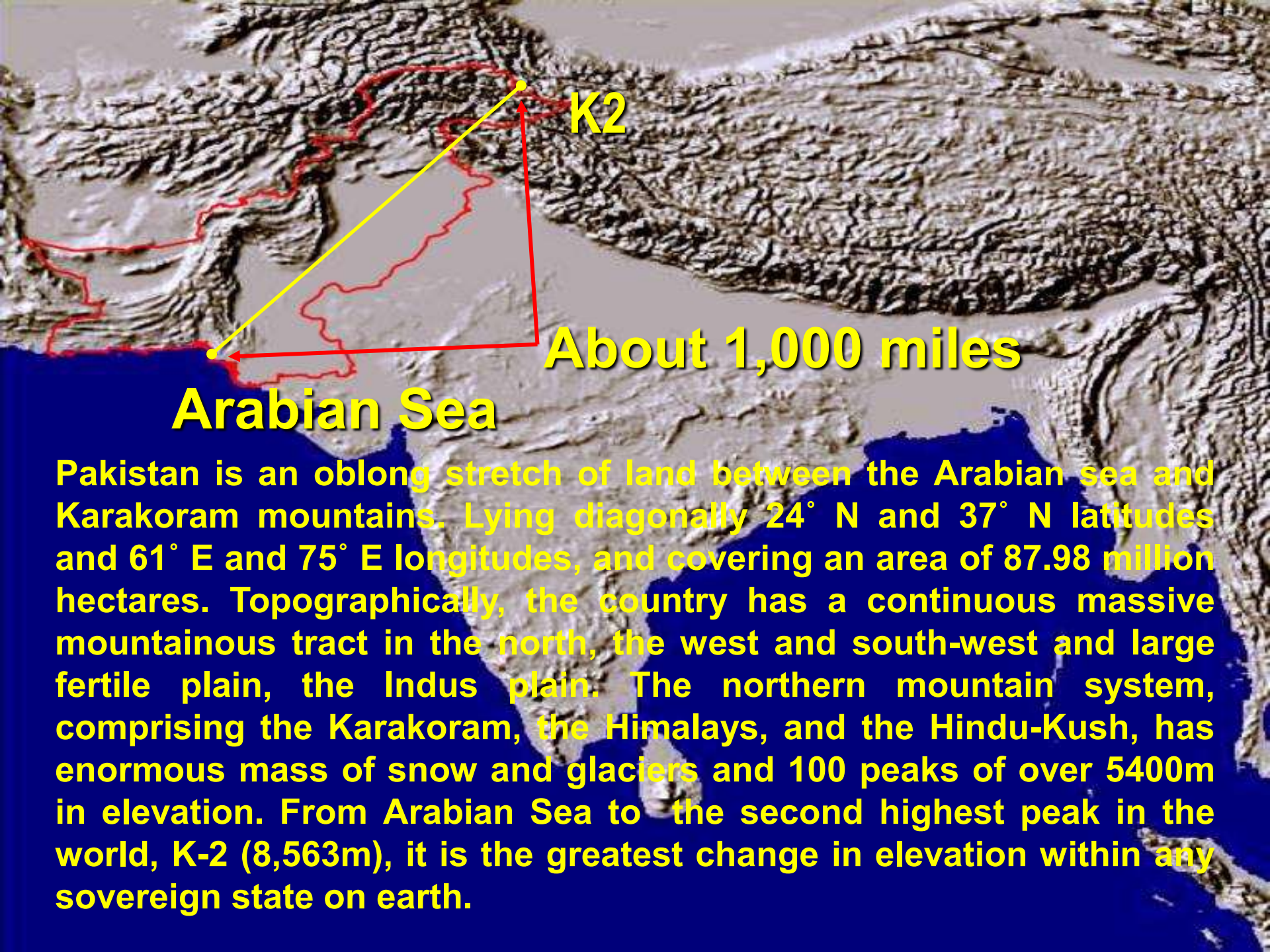
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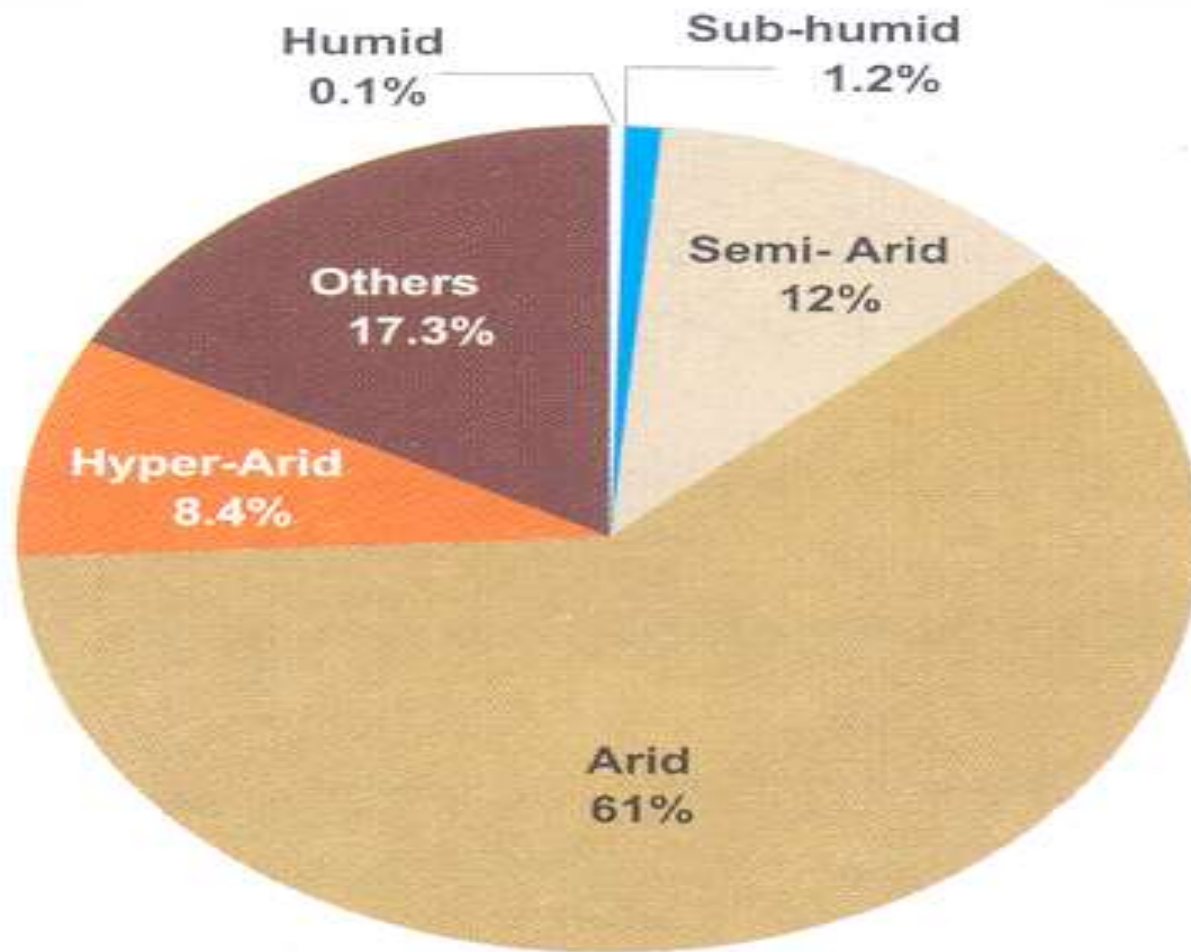


K2

About 1,000 miles

Arabian Sea

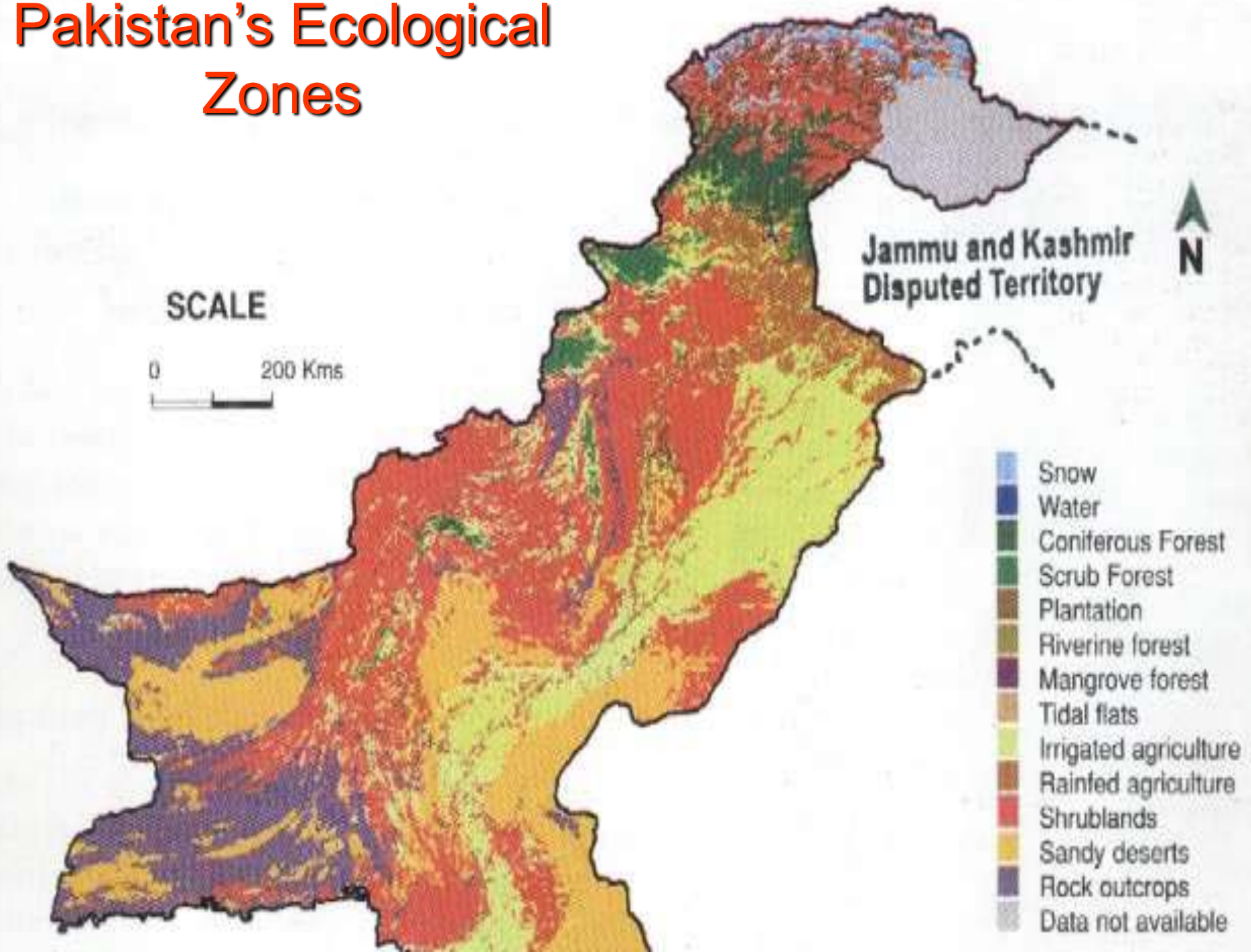
Pakistan is an oblong stretch of land between the Arabian sea and Karakoram mountains. Lying diagonally 24° N and 37° N latitudes and 61° E and 75° E longitudes, and covering an area of 87.98 million hectares. Topographically, the country has a continuous massive mountainous tract in the north, the west and south-west and large fertile plain, the Indus plain. The northern mountain system, comprising the Karakoram, the Himalays, and the Hindu-Kush, has enormous mass of snow and glaciers and 100 peaks of over 5400m in elevation. From Arabian Sea to the second highest peak in the world, K-2 (8,563m), it is the greatest change in elevation within any sovereign state on earth.



Pakistan's Land Area by Aridity Zones

More than 80% of the country is arid or semiarid. Due to this extensive aridity, the natural forest area is very small (about 5% of the total area)

Pakistan's Ecological Zones



WWF- Global 200 Ecoregions

Pakistan has five diverse and representative ecoregions included in Global 200 Ecoregions, identified by WWF. That are:

- ❑ The North Arabian Sea**
- ❑ The Indus Ecoregion**
- ❑ Rann of Kutch**
- ❑ Tibetan plateau**
- ❑ Western Himalayan Temperate Forests**

BIODIVERSITY OF PAKISTAN

Biodiversity of Pakistan is blend of Palaearctic, Indo-Malayan and Ethiopian forms. Species belonging to Palaearctic realm occur in the Himalayan and Balochistan uplands; those belonging to Indo-Malayan realm occur in the Indus plains including Thar Desert and the Himalayan foothills. Species with affinities to Ethiopian realm occur in the dry southwest, along the Makran Coast and in the Thar Desert.

Pakistan with its unique geographical location and climatic conditions has a varied and interesting mix of flora and fauna.

Biodiversity Of Pakistan

S. #	Taxa	Total Species Reported in Pakistan
1.	Mammals	195
2.	Birds	668
3.	Reptiles	192
4.	Amphibians	22
5.	Fish (freshwater)	198
6.	Fish (marine)	788
7.	Echinoderms	25
8.	Mollusks (Marine)	769
9.	Crustaceans (Marine)	287
10.	Annelids (Marine)	101
11.	Insects	>5000
12.	Angiosperms	5700
13.	Gymnosperms	21
14.	Pteridophytes	189
15.	Algae	775
16.	Fungi	>4500

Major Threats to Biodiversity of Pakistan

- ❑ **Habitat degradation**
- ❑ **Deforestation**
- ❑ **increase in human population**
- ❑ **Increase in livestock population**
- ❑ **Illegal harvesting**
- ❑ **Illegal trade of wild fauna and flora**
- ❑ **Urbanization**
- ❑ **Agricultural expansion**
- ❑ **Water diversion for irrigation purposes**
- ❑ **Weak enforcement because of limited infrastructure and remoteness of areas**
- ❑ **Pollution**
- ❑ **Infrastructure development**
- ❑ **Introduction of invasive species**
- ❑ **Lack of awareness**



Markhor (*Capra falconeri*),
National Animal of Pakistan



Chukar (*Alectoris chukar*)
National Bird of Pakistan



**Deodar (*Cedrus deodara*),
National Tree of Pakistan**

Protected Areas Network in Pakistan

- ❑ **Wildlife management and conservation in Pakistan, is a provincial subject. The Provincial/territorial Governments have set up their wildlife departments, which conserve, protect and manage wildlife under their wildlife legislations.**
- ❑ **However, policy formulation, liaison with international agencies, conventions and coordination with provincial/territorial authorities is carried out at federal level.**
- ❑ **Pakistan was committed to increase its protected areas network under Millennium Development Goals, up to 11% of its total land area by 2015, which has already been achieved. Total protected area is now more than 12%.**
- ❑ **A system of protected areas has been established in Pakistan, which include following categories:**
 - ✓ **National Parks: 26**
 - ✓ **Wildlife Sanctuaries: 92**
 - ✓ **Game Reserves: 89**
 - ✓ **Community Conservation Areas: 115**
- ❑ **Pakistan has also designated 19 Ramsar Sites, with total surface area of 1,343,627 ha.**

Status of Protected Areas in Pakistan

Under the legislations, hunting, shooting and habitat destruction is strictly prohibited in; National Parks and Wildlife Sanctuaries. Whereas hunting and shooting of wild animals under special permits is allowed in Game Reserves as well as Community Conservation Areas/ Private Game Reserves.

- ❑ IUCN Category II applies to the most of National Parks in Pakistan
- ❑ IUCN Category IV applies to the most of Wildlife Sanctuaries in Pakistan
- ❑ IUCN Category VI applies to the most of Game Reserves and Community Conservation Areas/ Private Game Reserves in Pakistan
- ❑ Ziarat Juniper Forest (Balochistan Province) has recently been declared as Biosphere Reserve under the UNESCO's Man and Biosphere (MAB) Programme
- ❑ Earlier in 1977, Lal Suhanra National Park (Punjab Province) was declared as Biosphere Reserve

Community Participation in Biodiversity Conservation

Mountain Areas Conservancy Project (MACP): A GEF/UNDP funded project (MACP) was implemented during 1999-2006 by the Government of Pakistan. The planned approach was to empower the local communities to safeguard the natural environment in addition to develop their livelihoods based on the sustainable use of natural resources. The objective of the project was to build capacity of the local communities, government agencies and other development partners to manage natural resources. As a result of the project, an initial system of four extensive Mountain Areas Conservancies was established by 2006 covering 16, 365 sq. km area with human population of 231, 000. For financial sustainability a “Mountain Areas Conservancy Fund (MACF)” was also established.

Collaborative Management of Protected Areas in Pakistan

Protected Areas Management Project (PAMP): A GEF/World Bank funded project, PAMP was implemented during 2002-2009 by the then Ministry of Environment, in collaboration with Provincial Departments and WWF-Pakistan. Management regimes were improved in three national parks (Hingol National Park, Chitral Goal National Park, and Machiara National Park) with active community participation by establishing Park Associations. The lessons learnt and best practices identified in the project are planned to be replicated in other protected areas of Pakistan.

Fund for Protected Areas (FPA): To ensure financial sustainability a “Fund for Protected Areas (FPA) “ was established. The FPA has been registered and licensed as a non-profit private company, which is run by an independent Board of Directors. The funds generated by FPA are utilized in the three national parks and their communities on the recommendations of Park Associations.

Boundary Demarcation and Re-notification of Protected Areas Project Areas

During 2007-2009 WWF-Pakistan in collaboration with Pakistan Petroleum Exploration & Production Companies Association (PPEPCA) and the then Ministry of Environment implemented a project to delineate/demarcate the boundaries of selected protected areas to ensure their sanctity and ecological integrity while promoting sustainable development. Under the project boundaries of seven protected areas with geographical details were delineated. These are:

- ❑ Margallah Hills National Park
- ❑ Khunjerab National Park
- ❑ Machiara National Park
- ❑ Kathar Game Reserve
- ❑ Ayubia National Park
- ❑ Hingol National Park
- ❑ Kirthar Protected Area Complex

Summary of National Parks in Pakistan

Province / Territory	Total Area (km2)	National Parks		
		Number	Area (ha)	Area Percent
Azad Jammu and Kashmir (AJK)	12,431	7	99,191	7.98
Gilgit – Baltistan	347,190	5	2,016,745	5.81
Balochistan	68,879	2	643,539	9.34
Khyber Pakhtunkhwa	74,521	6	196,649	2.64
Punjab	205,345	4	210,824	1.03
Sindh	140,914	1	308733	2.19
Islamabad capital Territory (ICT)	906	1	17,386	19.19
Federally Administrated Tribal Area (FATA)	27,220	0	0	0
Total for Pakistan	877,406	26	3,475,681	3.96

Summary of Wildlife Sanctuaries in Pakistan

Province / Territory	Total Area (km ²)	Wildlife Sanctuaries		
		Number)	Area (ha)	Area Percent
Azad Jammu and Kashmir (AJK)	12,431	0	0	0.00
Gilgit – Baltistan	347,190	3	164,100	0.47
Balochistan	68,879	14	1,192,335	17.31
Khyber Pakhtunkhwa	74,521	3	34,212	0.46
Punjab	205,345	38	208,589	1.02
Sindh	140,914	33	744,755	5.29
Islamabad Capital Territory (ICT)	906	1	7,000	7.73
Federally Administrated Tribal Area (FATA)	27,220	0	0	0
Total for Pakistan	877,406	92	2,350,991	2.68

Summary of Game Reserves in Pakistan

Province / Territory	Total Area (km2)	Game Reserves		
		Number	Area (ha)	Area Percent
Azad Jammu and Kashmir (AJK)	12,431	12	14,164	1.14
Gilgit– Baltistan	347,190	9	124,099	0.36
Balochistan	68,879	6	511,214	7.42
Khyber Pakhtunkhwa	74,521	38	371,066	4.98
Punjab	205,345	24	3,048,933	11.09
Sindh	140,914	0	0	0.00
Islamabad Capital Territory (ICT)	906	0	0	0
Federally Administrated Tribal Area (FATA)	27,220	0	0	0
Total for Pakistan	877,406	89	4,069,476	4.64

Summary of Community Conservation Areas in Pakistan

Province / Territory	Total Area (km2)	Community Conservation or Controlled Hunting Area		
		Number	Area (ha)	Area Percent
Azad Jammu and Kashmir (AJK)	12,431	0	0	0.00
Gilgit – Baltistan	347,190	24	447,000	1.29
Balochistan	68,879	2	358,299	2.61
Khyber Pakhtunkhwa	74,521	89	432,668	5.81
Punjab	205,345	0	0	0.00
Sindh	140,914	0	0	0.00
Islamabad Capital Territory (ICT)	906	0	0	0
Federally Administrated Tribal Area (FATA)	27,220	0	0	0
Total for Pakistan	877,406	115	1,237,967	1.41

Summary of Protected Areas in Pakistan

Province / Region	National Park (Area in hectare)	Wildlife Sanctuaries (Area in hectare)	Game Reserves (Area in hectare)	Community Reserves (Area in hectare)	Total Area Conserved (hectares)
Punjab	210,824	208,589	3,048,933	-	3,468,346
Sindh	308,733	744,755	-	-	1,053,488
Khyber-Pakhtunkhwa	196,649	34,212	371,066	432,668	1,034,595
Balochistan	643,539	1,192,335	511,214	358,299	2,705,387
Islamabad Capital Territory	17,386	7,000	-	-	24,386
Gilgit/Baltistan	2,016,745	164,100	124,099	447,000	2,751,944
AJK	99,191	-	14,164	-	113,355
Total	3,493,067	2,350,991	4,069,476	1,237,967	11,151,501

Strategies, Policies and Legislative Cover

Strategies and Policies :

- ❑ The Pakistan National Conservation Strategy (1992)
- ❑ Biodiversity Action Plan (2000)
- ❑ Provincial/territorial Conservation Strategies
- ❑ Trade Policy
- ❑ Climate Change Policy
- ❑ National Forest Policy (under consideration)
- ❑ National Wetlands Policy (under consideration)

Legislations:

- ❑ Pakistan Trade Control of Wild Fauna and Flora Act 2012
- ❑ The Pakistan Environmental Protection Act, 1997
- ❑ Customs Act, 1969
- ❑ The Sindh Wildlife Protection Ordinance, 1972
- ❑ The Balochistan Wildlife Protection Act, 1974
- ❑ The Khyber Pakhtunkhwa (N.W,F.P) Wildlife (Protection, Preservation, Conservation and Management) Act, 1975
- ❑ The Gilgit-Baltistan (Northern Areas) Wildlife Preservation Act, 1975
- ❑ Azad Jammu & Kashmir Wildlife Act, 1975
- ❑ The Punjab Wildlife (Protection, Preservation, Conservation and Management) (Amendment) Act, 2007
- ❑ The Islamabad Wildlife (Protection, Preservation, Conservation and Management) (Amendment) Act, 2008

Constraints/ Challenges in Protected Areas Management

- ❑ Lack of Management Plans for protected areas: Only few National Parks have Management Plans. The interventions/ activities are mostly project based and often discontinue with completion of the projects
- ❑ Conflicts between park staff and local communities: main reasons for conflicts are; livestock depredation by *canids*; lack of proper boundary demarcation, land tenure issues, undecided rights of locals communities and their dependence on resources
- ❑ Lack of inter-agency cooperation/coordination and conflicts due to dual/multiple ownership of protected areas
- ❑ Illegal hunting and collection
- ❑ Lack of financial resources
- ❑ Weak institutional capacity
- ❑ Lack of awareness

Community-based Trophy Hunting Programme (An exemplary Collaborative Management)



Community-based Trophy Hunting Programme (in Community Conservation Areas)

- ❑ Community-based Trophy Hunting of ungulates; Markhor (*Capra falconeri*), Urial (*Ovis vignei*) Blue Sheep (*Pseudois schaeferi*), Himalayan Ibex (*Capra sibirica*), Sindh Goat (*Capra aegagrus*) is being successfully implemented in Pakistan and is world recognised
- ❑ The local communities get 80% shares of the revenue generated, which is used for conservation and socio-economic uplift. 20% of the revenue goes to government as administrative fee. In return the communities protect wildlife with a sense of ownership
- ❑ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has allocated quota of 12 Markhors (Appendix-I) for Pakistan
- ❑ In recognition of successful implementation of Community-based Trophy Hunting Programme in Pakistan, the International Council for Game and Wildlife Conservation (CIC) selected Markhor as flagship species and started "CIC Markhor Award" for outstanding conservation performance through Community involvement

Use of Trophy Hunting Income



Use of trophy Hunting Income





Thank You