

# Potential Sites for the creation of Biosphere Reserves in Khyber Pakhtunkhwa



*By*

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## Khyber Pakhtunkhwa Wildlife Department

### Functions:

- The Wildlife Department serve as technical and focal department of the Government for the matters related to wildlife and biodiversity of the Province.
- In Biosphere Reserve, the focus of management is at landscape level. According to international commitments under various MEAs, the department also promotes ecosystem level of conservation to conserve the biodiversity of that landscape.
- Functions of Biosphere Reserve and Wildlife Department are thus identical.
- Resultantly requirement of Biosphere Reserve management is mandate of Khyber Pakhtunkhwa Wildlife Department.



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## Structure of Presentation





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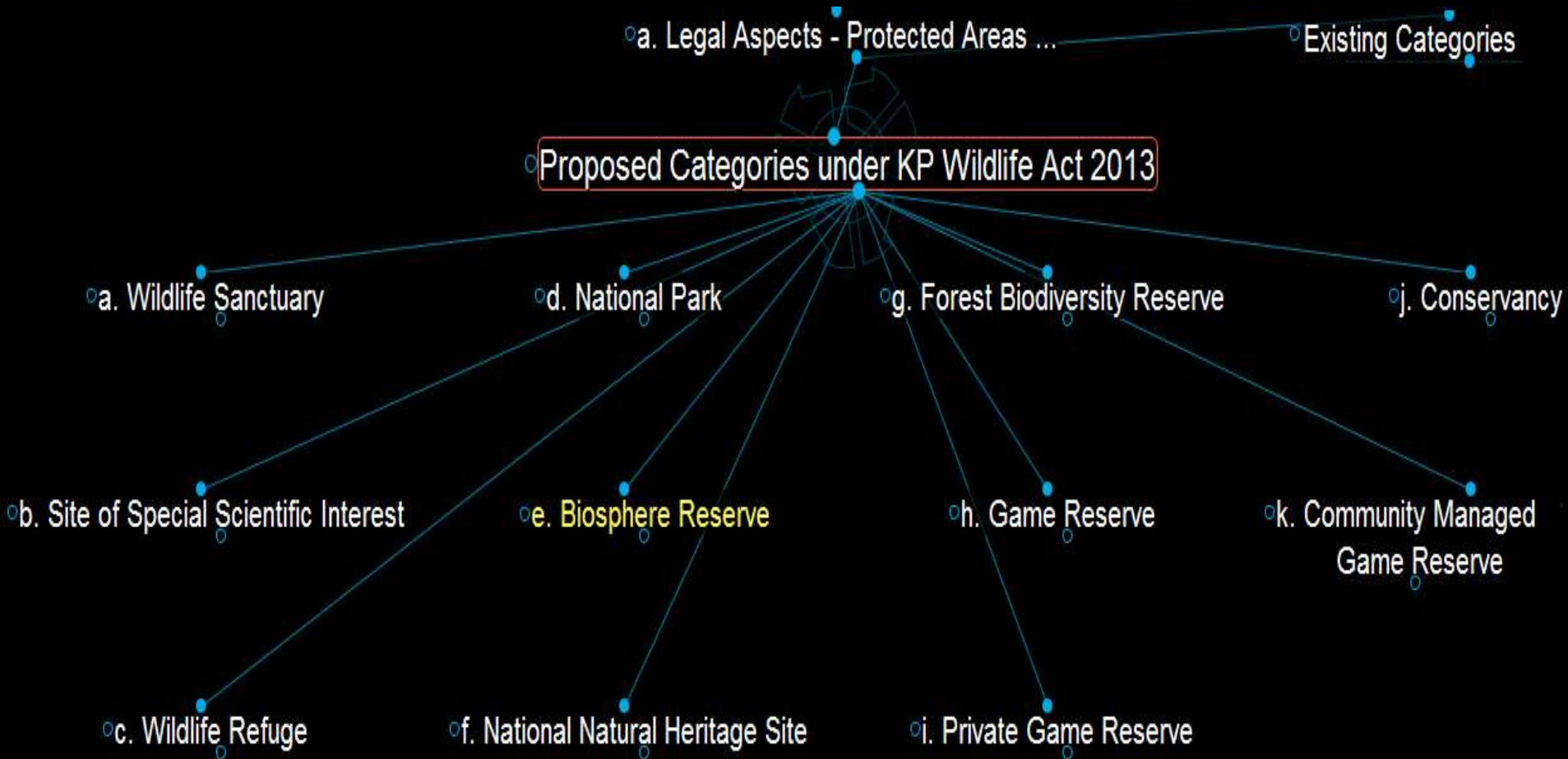


## Transformation in the Environmental Governance

- 1. Paradigm shift in environmental governance from traditional top down management strategy to co-management**
- 2. Conventional Wildlife legislation failed to give importance to social issues**
- 3. Increased national commitments under various MEAs.**

To address such shortcomings, the department drafted a model Wildlife Act after years of consultations with various stakeholders. The bill is in final stages of approval from provincial assembly.

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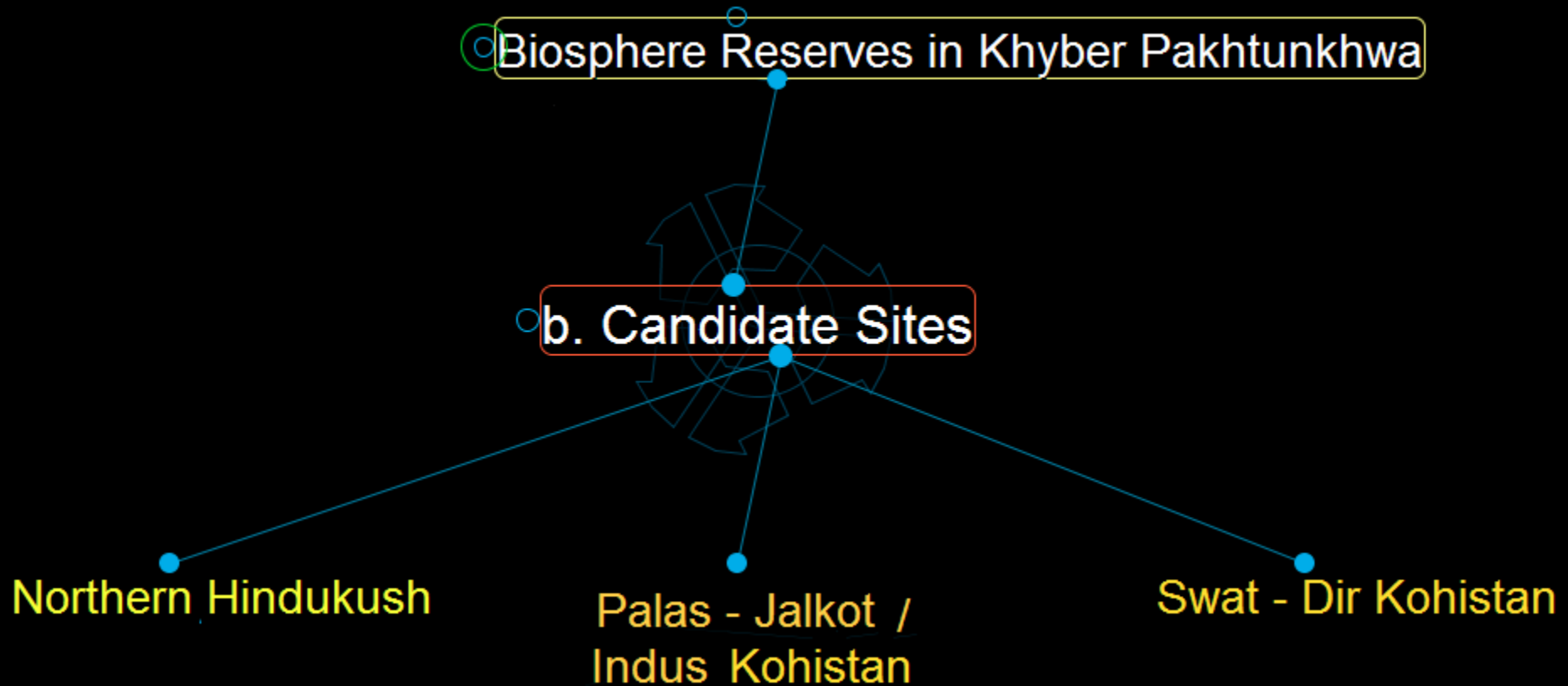


## Section 30:

When an area has a potential for promoting solutions to reconcile the conservation of biodiversity with its sustainable use, Government may, by notification in the official gazette, declare the area to be a Biosphere Reserve, comprising of a core zone, a buffer zone and a multiple-use zone, and manage it in the prescribed manner consistent with the UNESCO statutory framework of the MAB.



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## Northern Hindukush Biosphere Reserve

This Biosphere Reserve can be declared in area identified by the Pakistan Wetland Project as Northern Wetland Complex. Includes Broghul National Park in KP as core zone. It can be a single Biosphere Reserve, which extends from Wah Khan border on one side and Shandur area on other side. Whereas, in Gilgit Baltistan it may include Handrab and Pandur area.







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### Details of Brogil National Park (Core Zone)

Area: 134744 ha.

Terrain is undulating comprising of steep mountains, wide stretch grassy plans and narrow valleys.

It has snow-clad mountains, narrow passes and wide meadows.

More than 90% area is comprised of Alpine and Sub Alpine pastures and rangelands.

Altitude varies from 3281 m to 4304 m.



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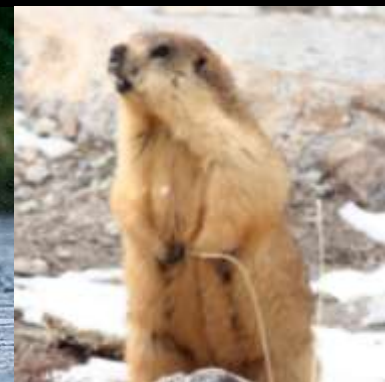


## Fauna

The area supports diverse wild animals including Himalayan Ibex, Blue sheep, Snow Leopard, Brown Bear, Tibetan Wolf, Golden Marmot, Snow cock, Chakur partridge.

Marco Polo sheep also visit the area as seasonal migrant.

Millions of migratory birds also use wetlands of Yarkhun valley during their migration along flyway 4.





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## Flora

As the park is situated on a height above tree line so it has very limited forests, which are mostly confined to lower parts.

Important plant species include:

Juniper (*Juniperus* spp),

Birch (*Betula* spp),

Willow (*Salix* spp),

Poplar (*Populus* spp).

The area is however rich in medicinal plants.



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## **Ecological importance**

Out of Global 200 Ecoregions, 2 Priority Ecoregions can be found in this potential Biosphere Reserve, those include Central Asian Mountain Steppe and Tibetan Steppe.

It is one of the pristine ecological area that consist of diverse wetlands, high altitude peat lands, braided streams and river with number of scenic lakes.

This can qualify the provisions of various conventions like CBD, Bonn, CITES, Ramsar and World Heritage Convention.

Declaration of this area as Biosphere Reserve will further boost up the efforts of department for in-situ biodiversity conservation and promotion of ecotourism.





## Palas – Jalkot / Indus Kohistan Biosphere Reserve

This Biosphere Reserve can be declared in Indus Kohistan of Hazara Civil Division.

Palas Valley can be the core zone of the Reserve, where as the boundary can be extended upto Allai area in Batagram District.





## Details of Palas Valley (Core zone)

Altitudinal variation: 1000m - 5151 m.

Topography is mostly rugged and precipitous.

Estimated mean annual precipitation is 900 - 1350 mm (mostly as winter snow).

Lower altitudes experience Dry Sub-Tropical conditions, higher altitudes experience Temperate conditions.





## Details of Palas Valley (Core zone)

Due to great altitudinal and climatic variation, Palas supports:

1. Subtropical Dry Oak *Quercus* dominated forests and scrub;
2. Temperate Forests (including deciduous, mixed and coniferous forests);
3. Sub-Alpine Birch *Betula* forests;
4. Alpine Scrub and meadows.

Over 400 plant species have been identified among which 3 species are new to science beside many rare plants.

Palas contains the largest known population of the threatened West Himalaya elm *Ulmus wallichiana*



## Details of Palas Valley (Core zone)

Over 140 bird species have been recorded in Palas, including largest known population of the globally threatened Western Tragopan. Palas also contains many rare and/or threatened mammal species of the Western Himalaya, including Markhor, Kashmir Grey Langur, Brown Bear, Black Bear, Wolf, Snow Leopard and Musk Deer. Palas also exhibits a rich diversity of reptiles, amphibians and invertebrates.





## Swat – Dir Kohistan Biosphere Reserve

This Biosphere Reserve may include area of Dir Kohistan and Swat Kohistan.

There are 7 valleys including Gawaldai, Sundries, Siasan, Jandri, Badgowai, Kumrat and Loinil in Dir Kohistan. Besides, there are six valleys in Swat Kohistan, including Bhan, Utror, Gabral, Shahu, Goodar and Mahodand.







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Ecologically, the area falls in Temperate Zone, the floral diversity include mostly mix conifer forests and Oak forests. Also have Alpine and Sub Alpine meadows.

Key floral species are:

Deodar (*Cedrus deodara*),  
Blue Pine (*Pinus wallichiana*),  
Fir (*Abies pindrow*),  
Spruce (*Picea smithiana*),  
Chilghoza pine (*Pinus gerardiana*),  
Oak (*Quercus dilatata*, *Q. ilex*),  
Walnut (*Juglans regia*),  
Birch (*Betula utilis*),  
Poplar (*Populus ciliate*),  
Yew (*Taxus walliachina*)



The associated wildlife include:

Markhor, Himalayan Ibex, Black bear, Snow leopard, Wolf, Musk Deer, Snow cock, Monal Pheasant, Koklass Pheasant, Chakur Partridge.

# A key Question: Why to declare it?

## Communities:

Why WE should bear the cost of conservation?



Source: Sada-e-Chitral

# Key Wildlife of Northern Khyber Pakhtunkhwa



*Thanks*

*For feedback / suggestions, please email  
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