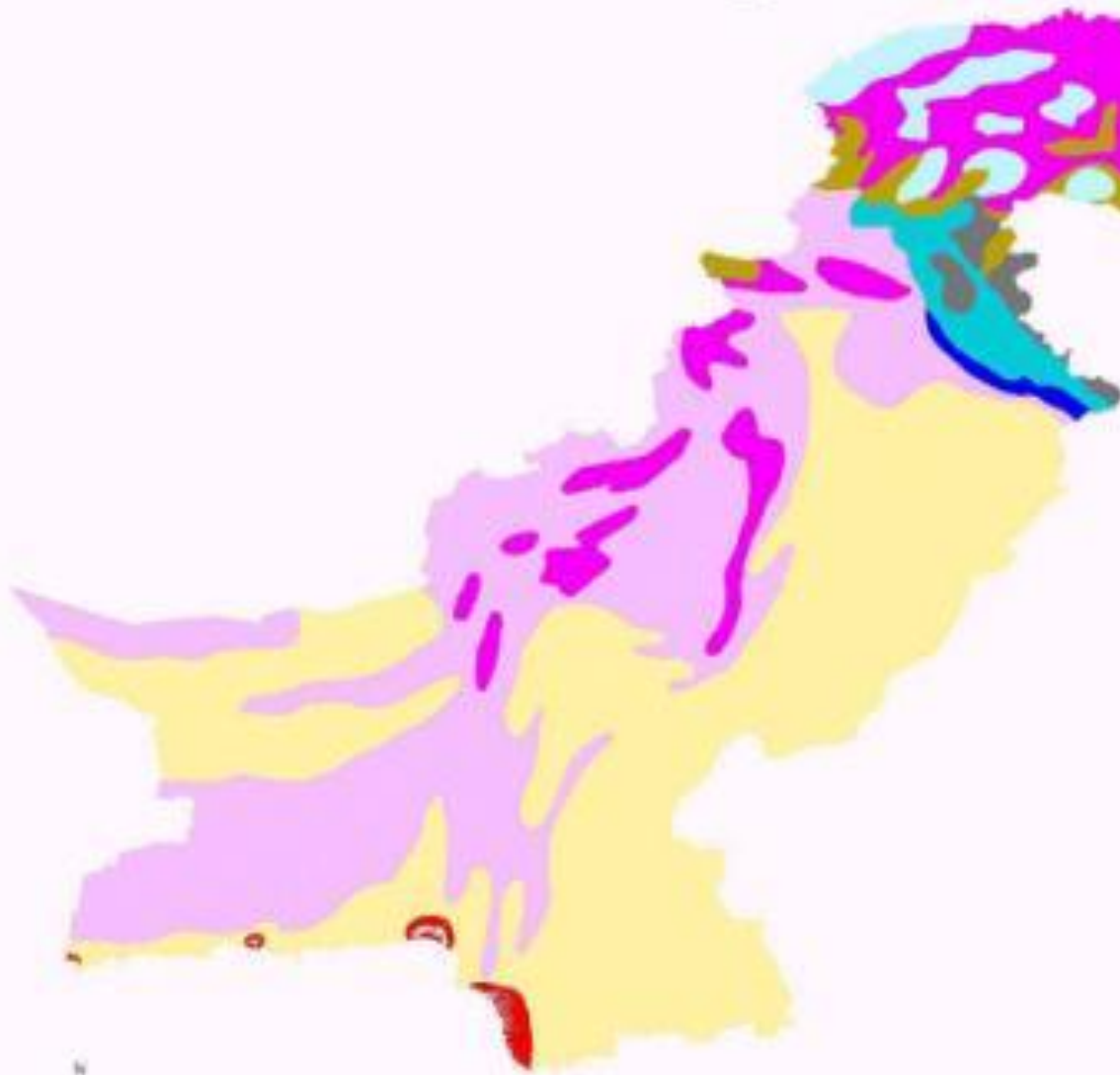


Sub-Theme: *collaboration and networking by developing effective external partnerships to ensure long-term viability*






**Various adjustments to promote the long term
viability of Biosphere Reserves-
a case study from the Central Karakoram
National Park of Pakistan**

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LEGEND

-  Arid sub-tropical forest
-  Dry sclerophyllous & tropical deciduous forest
-  Dry temperate coniferous
-  Himalayan moist temperate forest
-  Mangrove & littoral
-  Permanent snow, alpine meadows & sub-alpine scrub
-  Steppic forest & alpine dry steppe
-  Sub-tropical pine forest
-  Tropical thorn forest



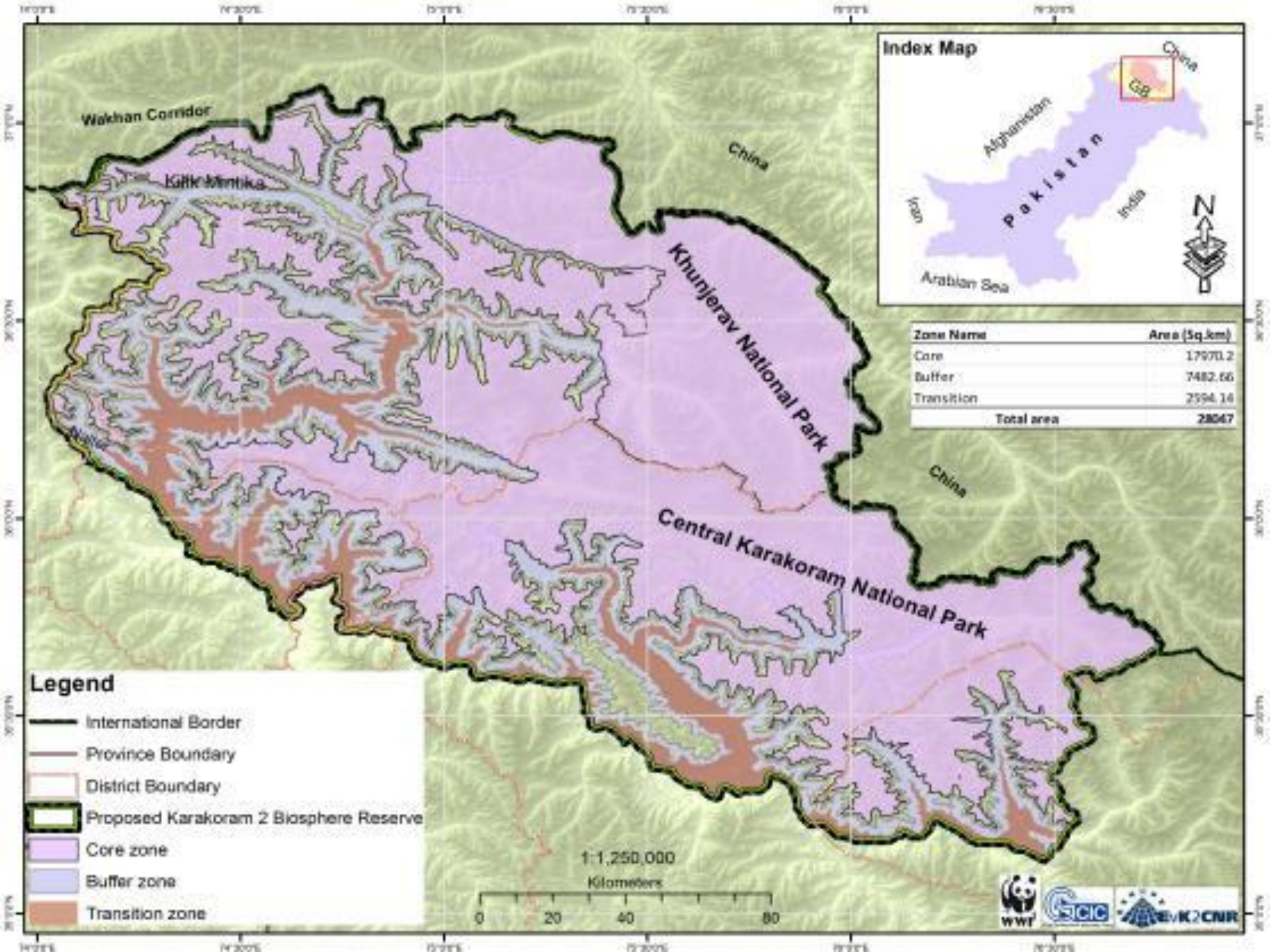
Produced by the GIS Lab of WWF-Pakistan using software donated by ESRI Inc., Redlands, CA.

MAIN BARRIERS IN MANAGEMENT OF PROTECTED AREAS

- 1. Conservation, though not the only activity in a BR , has to be the focus of management; however it does depend upon the people's understanding, organization and motivation- a task that is often ignored**
- 2. The statutory laws are strict and often hard to implement in a society that are dependent so heavily on the uses of natural resources**
- 3. Customary laws and practices that are in use since centuries and are often not bad for the sustainability of the resources, are not recognized and thus not allowed in a protected area/zone**

THE BEST OF THE EXPERIMENTAL GROUNDS- THE CENTRAL KARAKORAM NATIONAL PARK(CKNP)

- Established in 1993-the park has 1000 km² area
- Almost 4 institutions have remained involved in its management planning
- EvK2CNR-an Italian Foundation, has been experimenting on various management options and systems for the past 8 years
- The management plan for CKNP was developed finally in 2014 and approved by the Government



OVERVIEW OF THE MAJOR FEATURES OF THE CKNP

1. Glaciers

The total number of glaciers in the CKNP has been worked out to be 711, covering 4606,706 km² areas. Out of these 433 glaciers are less than 1 km² in size while 278 are more than 1 km². Fifty one glaciers are more than 10 km², while 17 are more than 50 km². Nine glaciers are more than 100km² in size.

2. Water

- There are estimates indicating that more than *50% of the water flowing in the Indus River, Pakistan, which originates from the Karakoram, is due to snow and glacier melt*
- *CKNP represent the largest source of freshwater for Pakistan (and one of the largest mountain glacial systems in the world) with the Siachen, Baltoro and Hispar-Biafo glaciers all originating within the park boundaries*

- 3. FLORAL AND FAUNAL CHARACTERISTICS OF CKNP

(Biodiversity, including species, genetic variations and ecosystem variations)











Management History (1993-2008)

- Management plan but not approved**
- No operational plan and thus no operations**
- Plan preparation by EvK2 in 2007 and completed in 20012, supported by operational plan in 2014 and approved by the pertinent Government authority**

Major pluses of the management plan

- 1. The first of its kind where boundaries of the park are drawn on the basis of GIS but verified through ground exercises**
- 2. The first to have based its management decisions on independent research findings**
- 3. The first to have tried to organize tourism in the park as per acceptable standards**

- 4. The first to have realized and tried to minimize conflicts over the use of natural resources of the park by people who have traditional rights of uses**
- 5. The first to have involved local community in the entire planning process through appropriate social mobilization and motivation process**
- 6. The first for having an in-built mechanism to test the validity of some of the management prescriptions as part of the implementation of the plan**

7...and the first to have provided an opportunity to 18 students to undertake their PhDs on issues related to CKNP

Park issues that required special adjustments

- The park was created under the Northern Areas Wildlife Rules of 1975 but the 4 Forest Divisions, inside the park, are functioning under the Forest Act. Both have different rules and contradictory to the objectives
- The park (CKNP) is supposed to be managed under the 1975 rules that doesn't allow any human interference but the people are used, since centuries, to practice the customary laws in the use of Natural Resources
- The park had a management plan but it didn't cover or address any of the above issues
- The park had several management issues, none addressed through social or scientific research
- There are roughly +90 thousands people, that are either dependent upon the park resources or the right holders of a part of the Karakoram mountain ecosystem that has special ecological significance. However, their needs or potential role had never been recognized before.
- The park had no specific administrative structure

Because of all of the above, the park had no boundary demarcation, nor any management zone within the park.

Special Adjustments

Social adjustment

Recognizing people's support as basis of sustainability, involving them in crucial management decision and building their social structures and capacities to be part of the implementation at village, valley and park levels.

Legal adjustment

Assessing the "*pro conservation indigenous practices*" as substitute to conflicting statutory rules for application with the consensus of custodian Government Department (such good practices are being identified on the basis of comprehensive assessment and recommended for needful approval)

Scientific/ecological adjustments

Developing capacities for scientific research, finding solutions for management issues and producing PhDs to supervise future interventions (18 PhDs were produced during the project period, 2007-2015)

How did such adjustments contribute to the sustainability of the park?

- People are cooperating in providing data on uses of the park resources which is being used to predict the future of the park and uses adjusted accordingly
- The adjoining communities got motivated to be part of a larger area in the form of the Karakoram-Pamir Biosphere Reserve (KPBR), spread over 26 thousands Km². (Dossier is with UNESCO)

- Though not yet designated by UNESCO as a KPBR, the community's willingness and the site demarcation maps are being used for sustainable land use programme by different projects, adding in advance to the management planning of the KPLBR, and to its sustainability, when designated by UNESCO
- Because of social peace in the target area, future is created for a Trans-boundary Biosphere Reserve jointly between Pakistan and China
- The initiative being successful, is now designed for a *web-based Mountain Protected Areas Federation*, (concept launched at the World Park Congress in Sydney) ensuring thus better sustainability of the network at National, regional and Global levels

