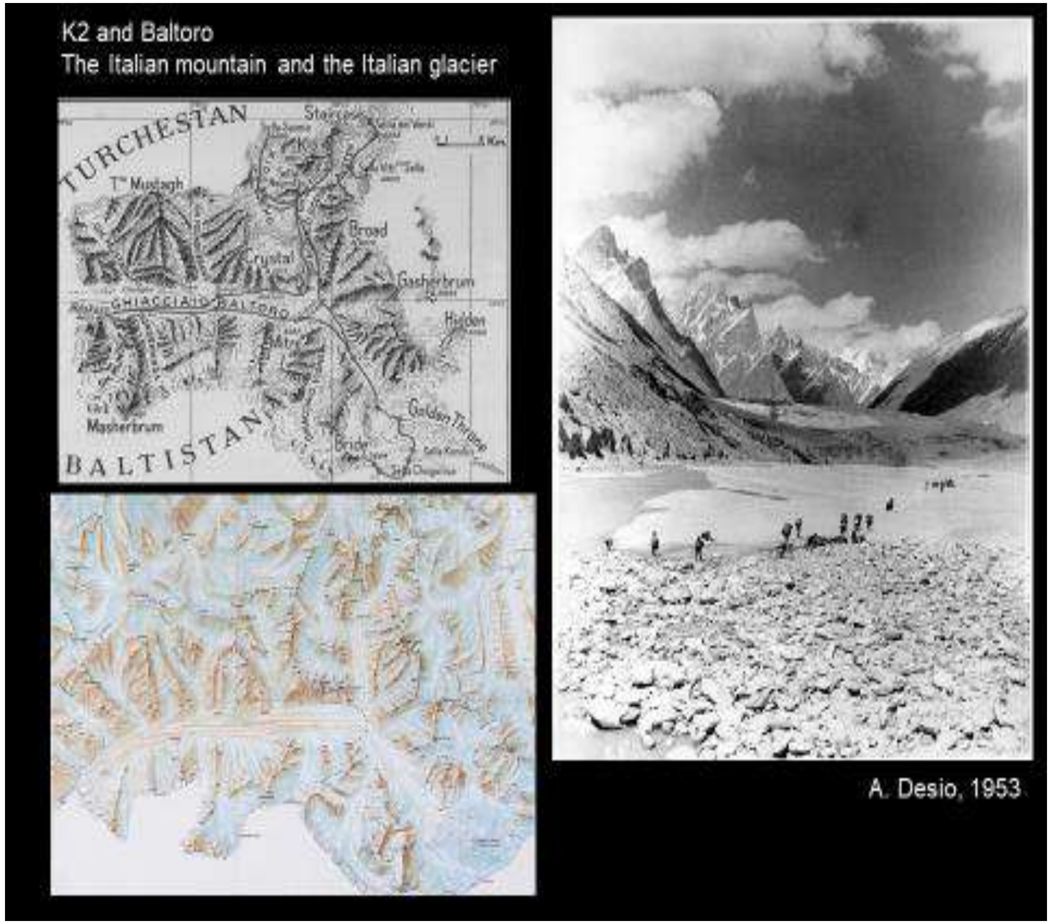
Italy and Pakistan
More than 100 years of history around the K2

The origin of the studies of Italian explorers and researchers in Pakistan

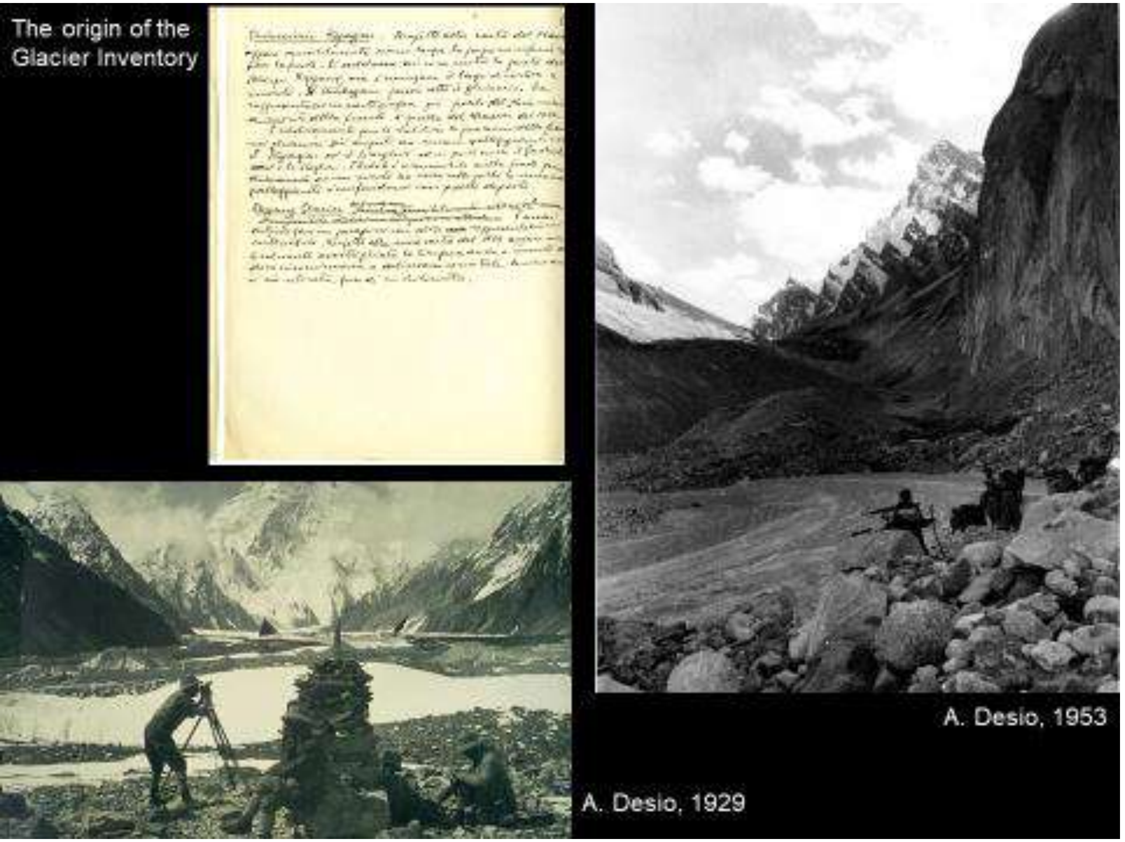


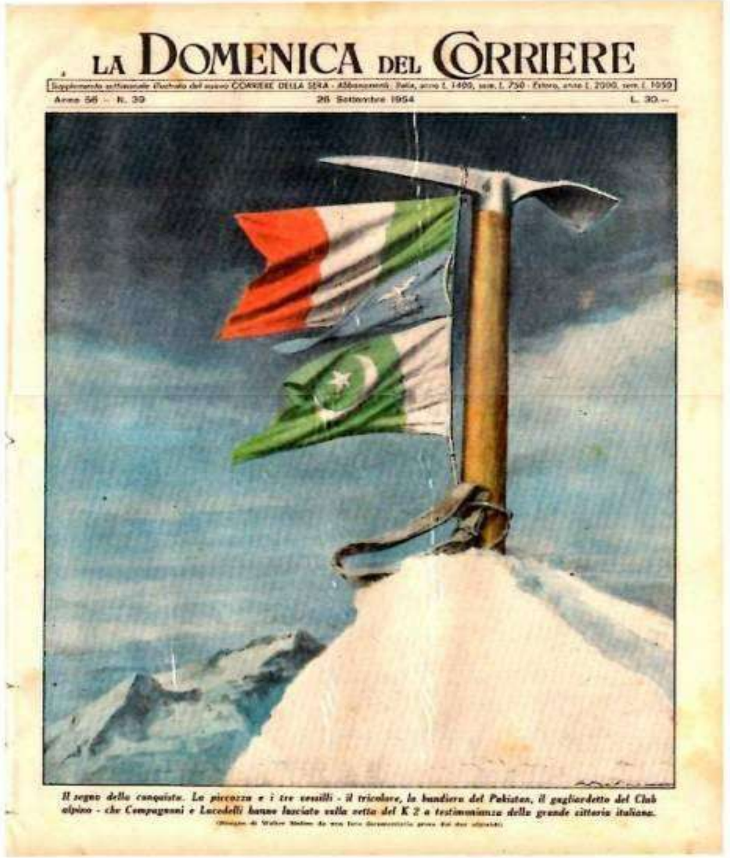
- In 1909 Italian expedition caused a huge leap forward towards mapping and observations of many high-altitude source of Baltoro glacier while the outstanding photographs of Vittorio Sella (1909) served as a research treasure and a baseline.
- In 1929, Italian alpinist Massimo Terzano followed his footsteps with the aim of carrying out an accurate analysis of the climate change effects and to compile for the first time a visual record of pictures.
- In 1929 first mission by Ardito Desio, as a geographer and glaciologist. In 1954, he led the Italian Expedition on K2, that climbed K2 first time in history.

The Italian contribution to study the cryosphere of Pakistan continued in 1954 with Ardito Desio and the K2 expedition

Desio dream was to create a park around K2

A large amount of data have been collected since then providing a knowledge base on this important glacierized area





Gilgit Baltistan

Total surface 72,971 km^2

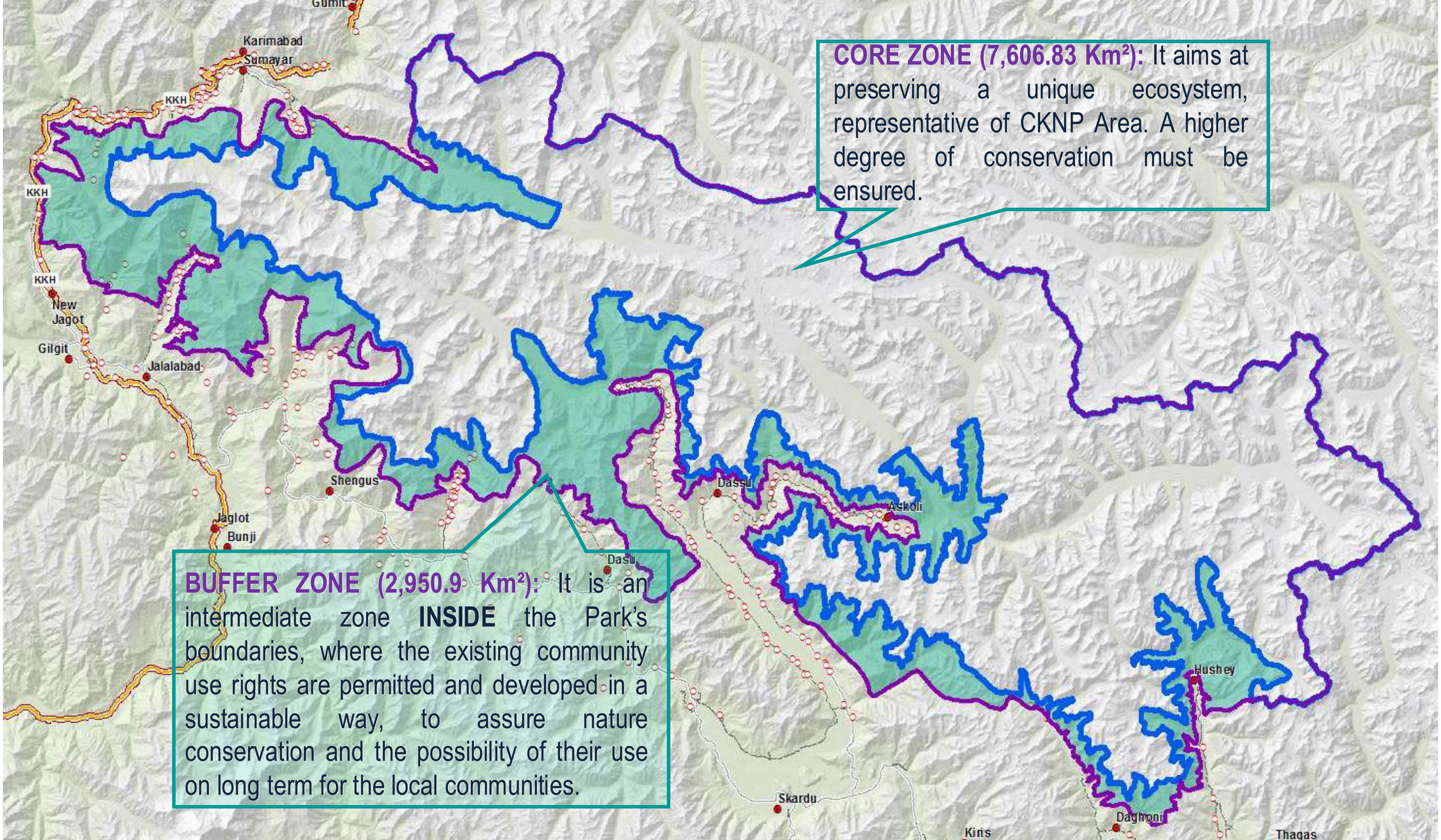
Protected areas 48,067 km^2

65.8 %

National parks 24,168 km^2

33.1 %


CKNP
K2 NATIONAL PARK



CORE ZONE (7,606.83 Km²): It aims at preserving a unique ecosystem, representative of CKNP Area. A higher degree of conservation must be ensured.

BUFFER ZONE (2,950.9 Km²): It is an intermediate zone **INSIDE** the Park's boundaries, where the existing community use rights are permitted and developed in a sustainable way, to assure nature conservation and the possibility of their use on long term for the local communities.

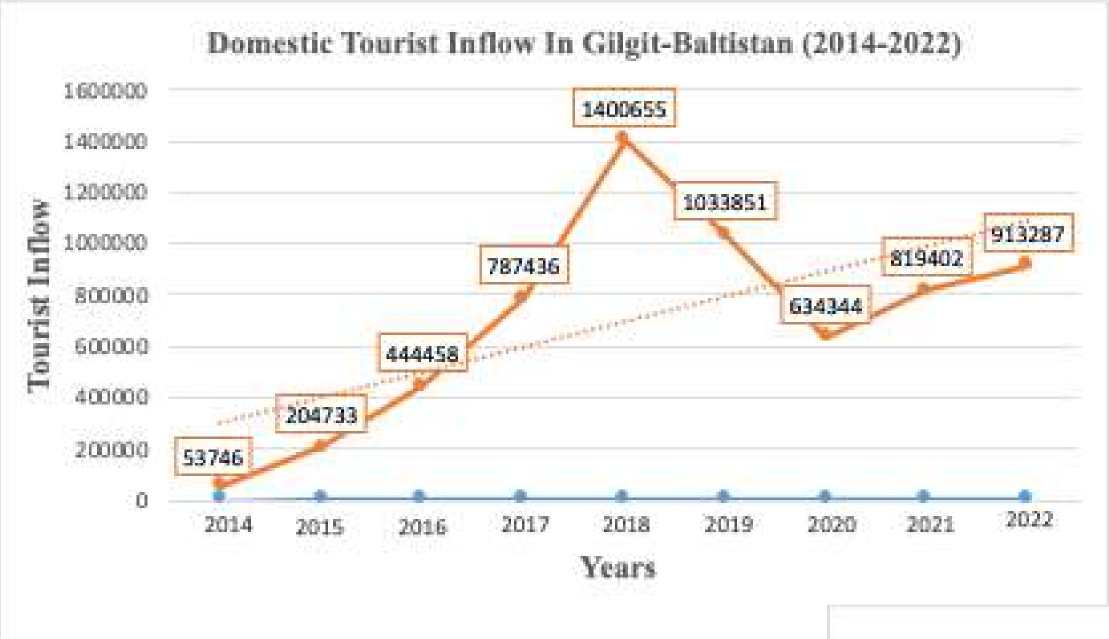
seed Social Economic Environmental Development

March / July 2013
Process of sharing and implementation of the CKNP MP with local communities

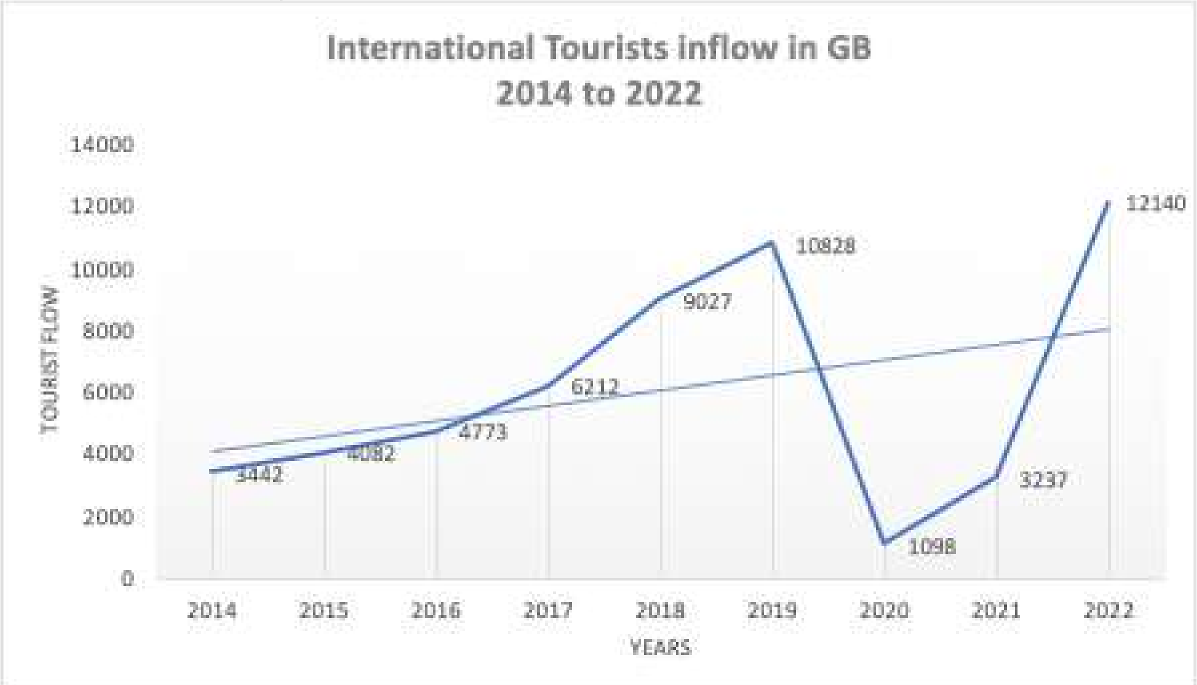
Objectives

- to share the new development in the MP of CKNP;
- to get feedbacks and suggestions from the community representatives;
- to take demands from the communities in order to provide incentives;
- to share the idea of establishing a CKNP Community Management Committee (CMC);
- Participatory process in order to reach the goal of economic development while protecting environment.

Domestic Tourist inflow in Gilgit-Baltistan (2014-2022)



The trend of tourism is exponentially increasing



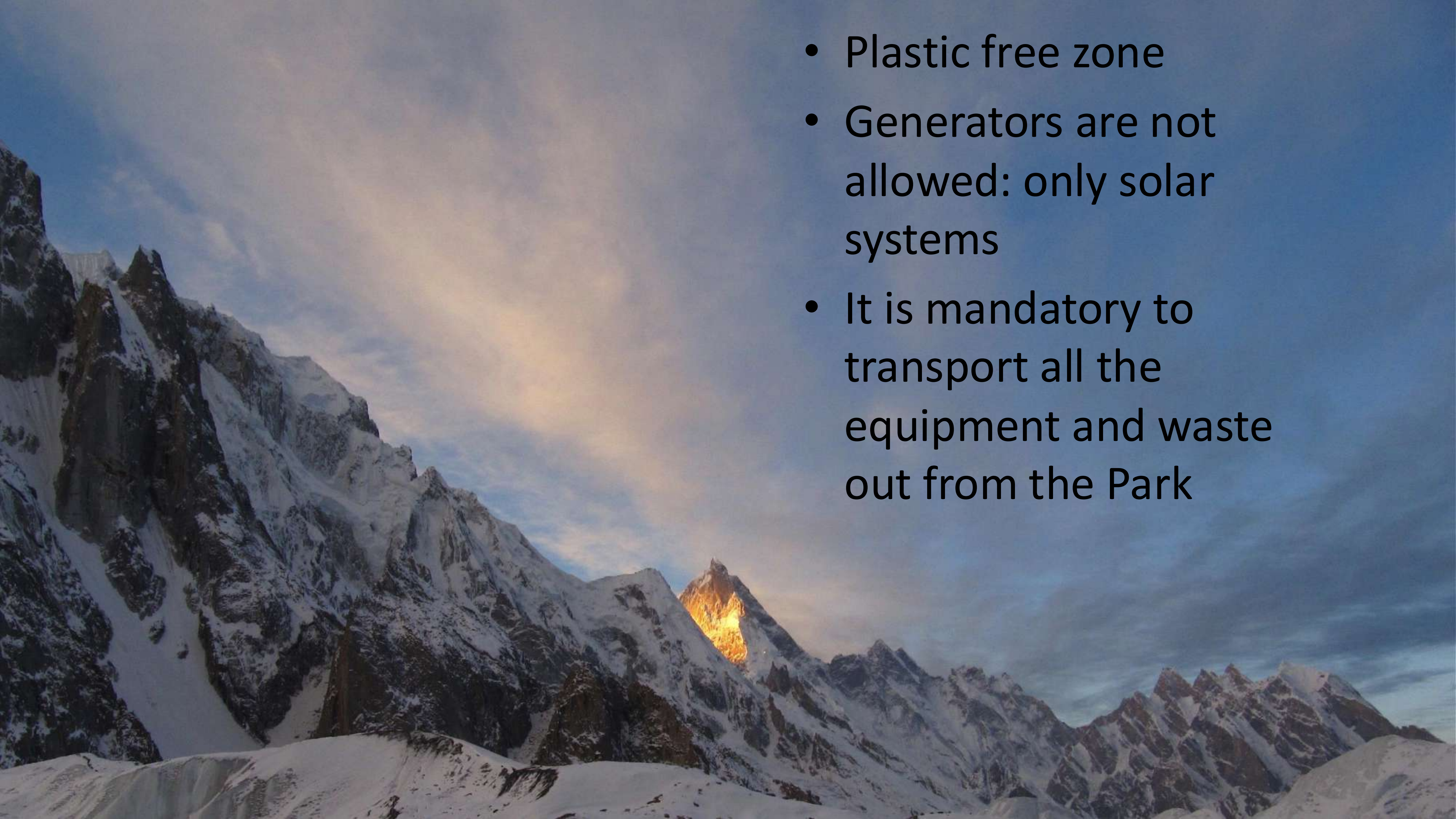
Waste management


Snow leopard
2014: 16
2022: 30/35

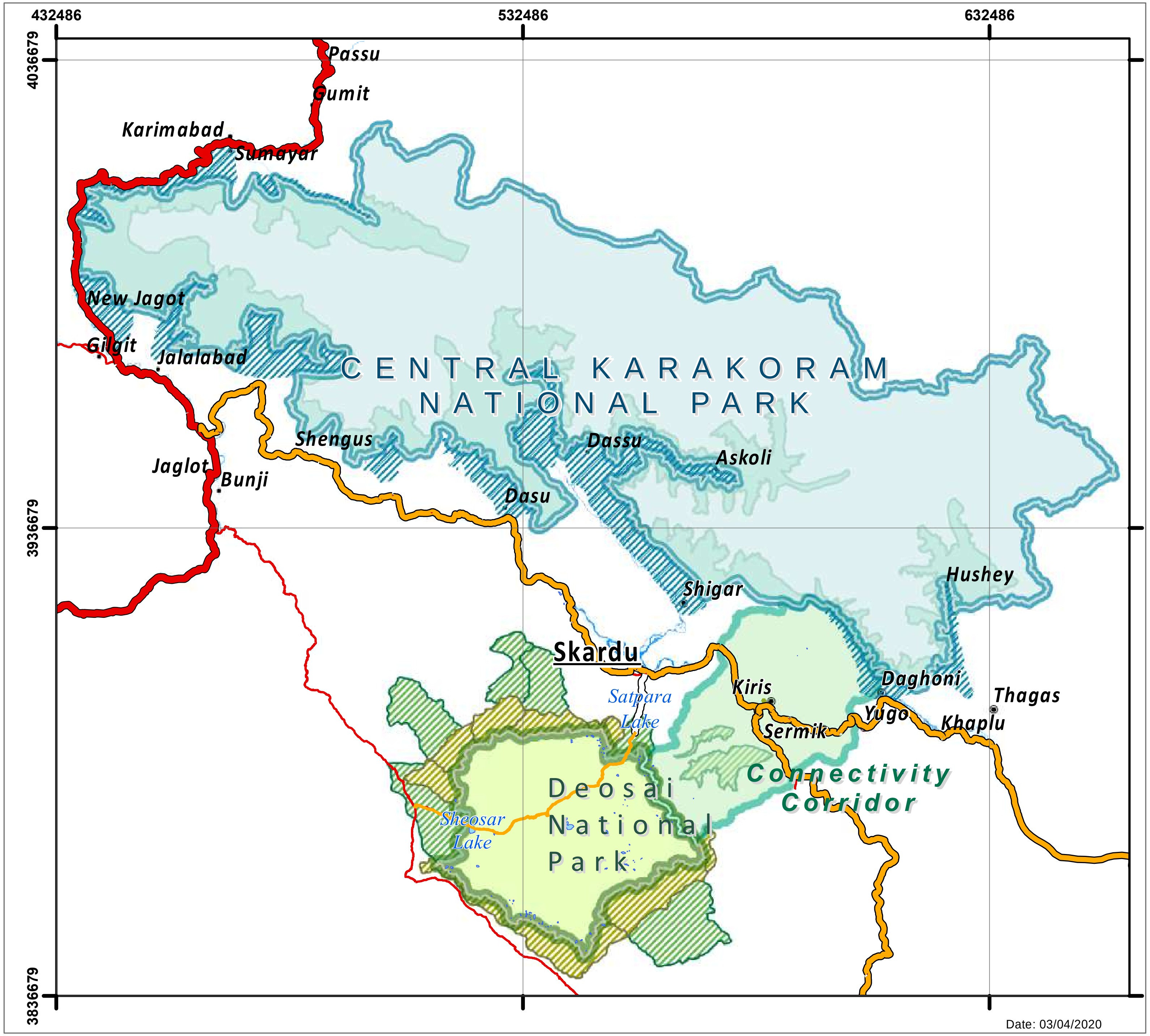

Urial
2014: 32
2022: 51


Ibex
2014: 2179
2022: 4203


Markhor
2014: 153
2022: 277



- Plastic free zone
- Generators are not allowed: only solar systems
- It is mandatory to transport all the equipment and waste out from the Park



DNP- CKNP Connectivity Corridor

Legend

- CKNP
- CKNP Buffer Zone
- CKNP Buffer Zone Valleys
- DNP Boundary
- DNP Buffer Zone Valleys
- DNP Buffer Zone
- Connectivity Corridor

		Surface (sq km)
CKNP	Core Zone	7588,4
	Buffer Zone	2961
	Buffer Zone Valleys	1494,5
		12043,9
DNP	Park	1621,6
	Buffer Zone	613,4
	Buffer Zone Valleys	765,69
		3000,69
Connectivity Corridor	*Internal Zones*	1338,6
	Buffer Zone Valleys	102,6
		1441,2
Tot Protected Areas		**16485,79**

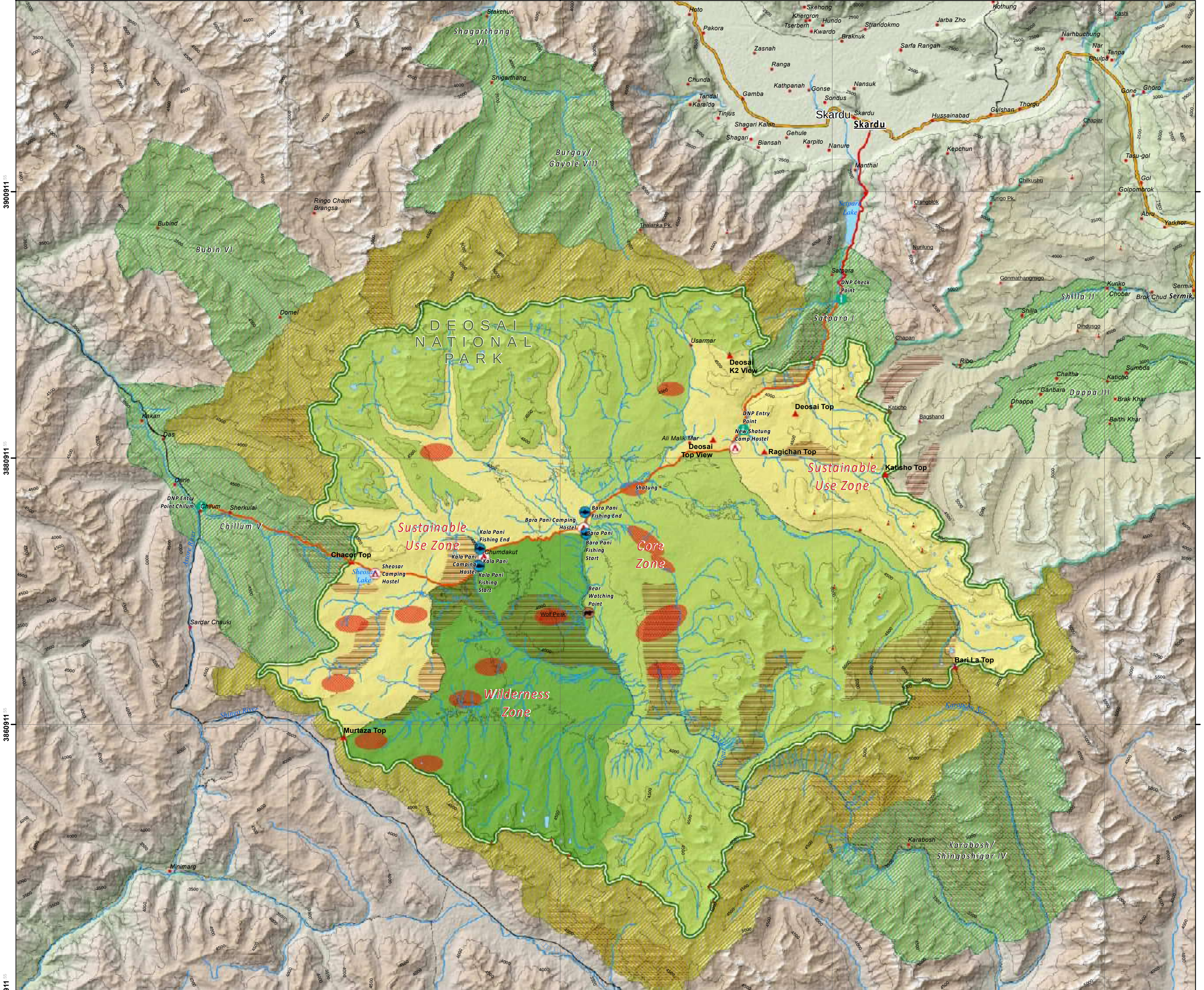
0 20 40 km

CKNP
DNP
CORRIDOR

Total surface
16,486.79 km^2

22.6. % of the surface of GB

DNP
DEOSAI NATIONAL PARK



DNP
Zoning Map

Legend

DNP Boundary

Zones

- Core Zone
- Wilderness Zone
- Sustainable Use Zone
- Buffer Zone Valleys
- DNP Buffer Zone
- Connectivity Corridor

Coordinate System: WGS 1984 UTM Zone 43N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500.000.0000
False Northing: .0000
Central Meridian: 75.0000
Scale Factor: .9996
Latitude Of Origin: .0000
Units: Meter

0 5 10 km

EvK2CNR

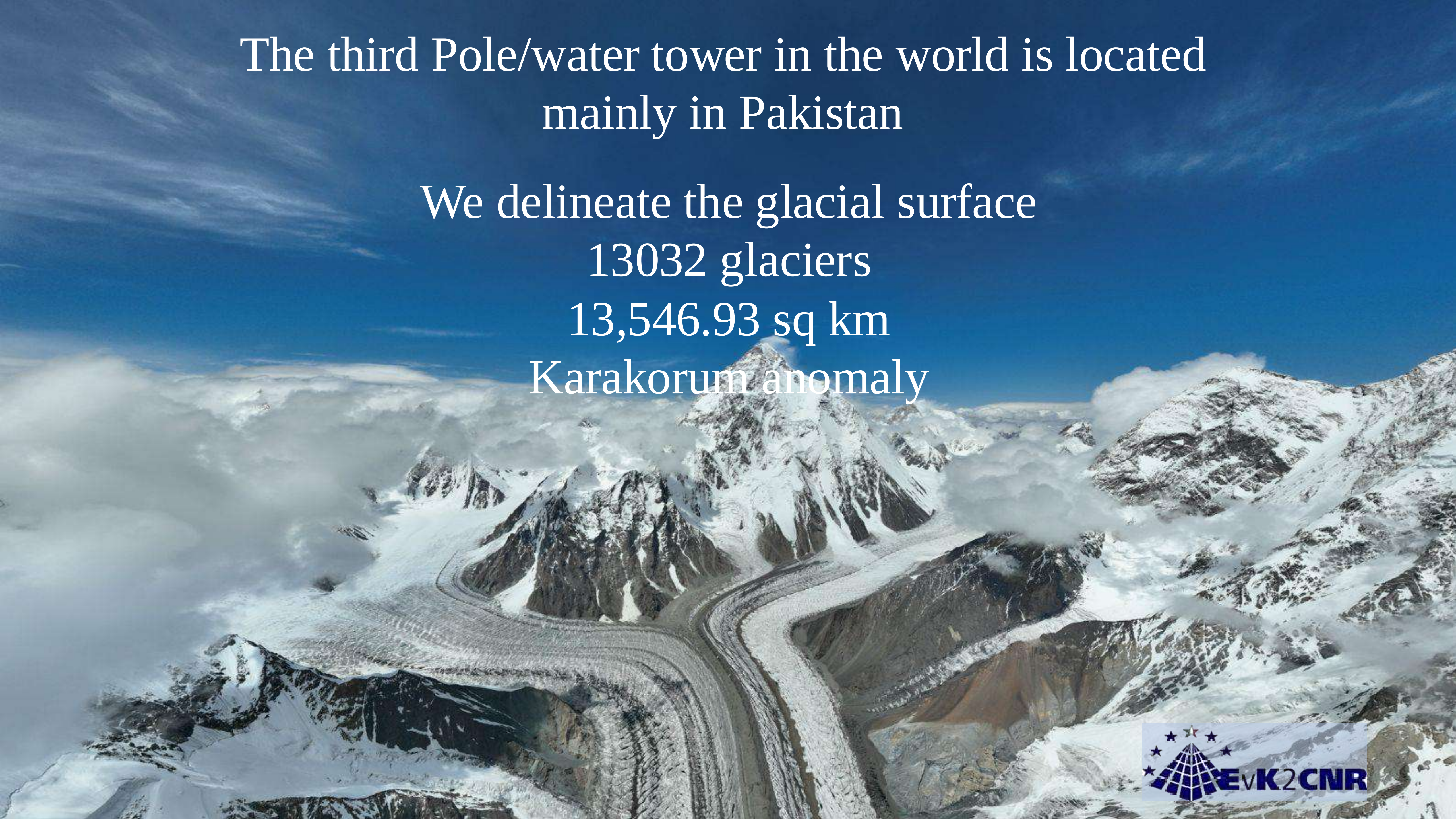
ITALIAN AGENCY FOR DEVELOPMENT COOPERATION

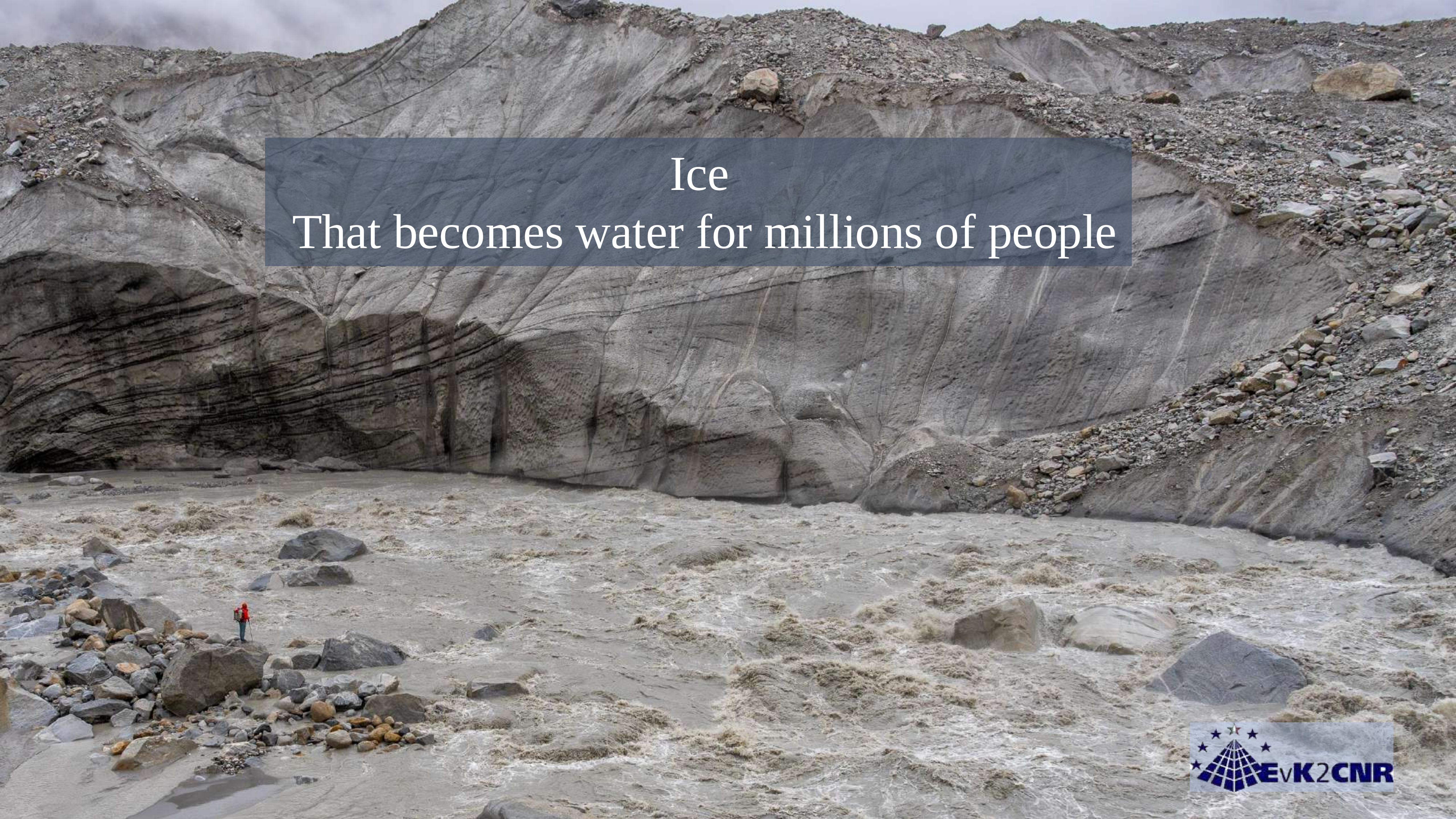
UNDP

GLACIERS & STUDENTS

A SCIENTIFIC-BASED APPROACH TO MONITOR CLIMATE AND GLACIERS IN PAKISTAN'S MOUNTAIN REGIONS TO SUPPORT HYDROGEOLOGICAL RISK PREVENTION

Funded by The Italian Government AICS
Executed by UNDP
Implemented by : EvK2CNR with the support of University of Cagliari – Italy, University of Milan – Italy, Karakoram International University - Gilgit-Baltistan, University of Baltistan – Skardu, Environmental Protection Agency - Gilgit-Baltistan


The third Pole/water tower in the world is located mainly in Pakistan
We delineate the glacial surface
13032 glaciers
13,546.93 sq km
Karakorum anomaly
EvK2CNR


Ice
That becomes water for millions of people
EvK2CNR

The new inventory of 13,032 glaciers in Pakistan: the "Glaciers & Students" Project

Editors: **Guglielmina Diolaiuti, Davide Fugazza, Maurizio Gallo and Maria Teresa Melis**
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UNIVERSITÀ DEGLI STUDI DI MILANO UNICA

G&S Scale Up
W4D Project

- From glacial AREA to glacial VOLUME – water availability and the impacts of climate change.
- Assess hydrological impacts of climate change on glaciers – and thus ecosystems, energy production, agriculture and human livelihood relying on them.
- Adopting the same participatory approach with KIU - UOBS and EPA, other Institutions and local communities.
- Establishment of 4 scientific laboratories 2 in KIU 2 in UOBS
- Development of ecotourism in an integrated prospective

K2
2014
60 years later

MOUNTAINEERING TRAINING

2024

70 YEARS LATER

ITALIAN AND PAKISTAN WOMEN EXPEDITION


THANK YOU