

THE ARCTIC AND HINDU KUSH KARAKORAM HIMALAYA: GLACIER LANDSCAPE GOVERNANCE IN N-PAKISTAN

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University of Iceland

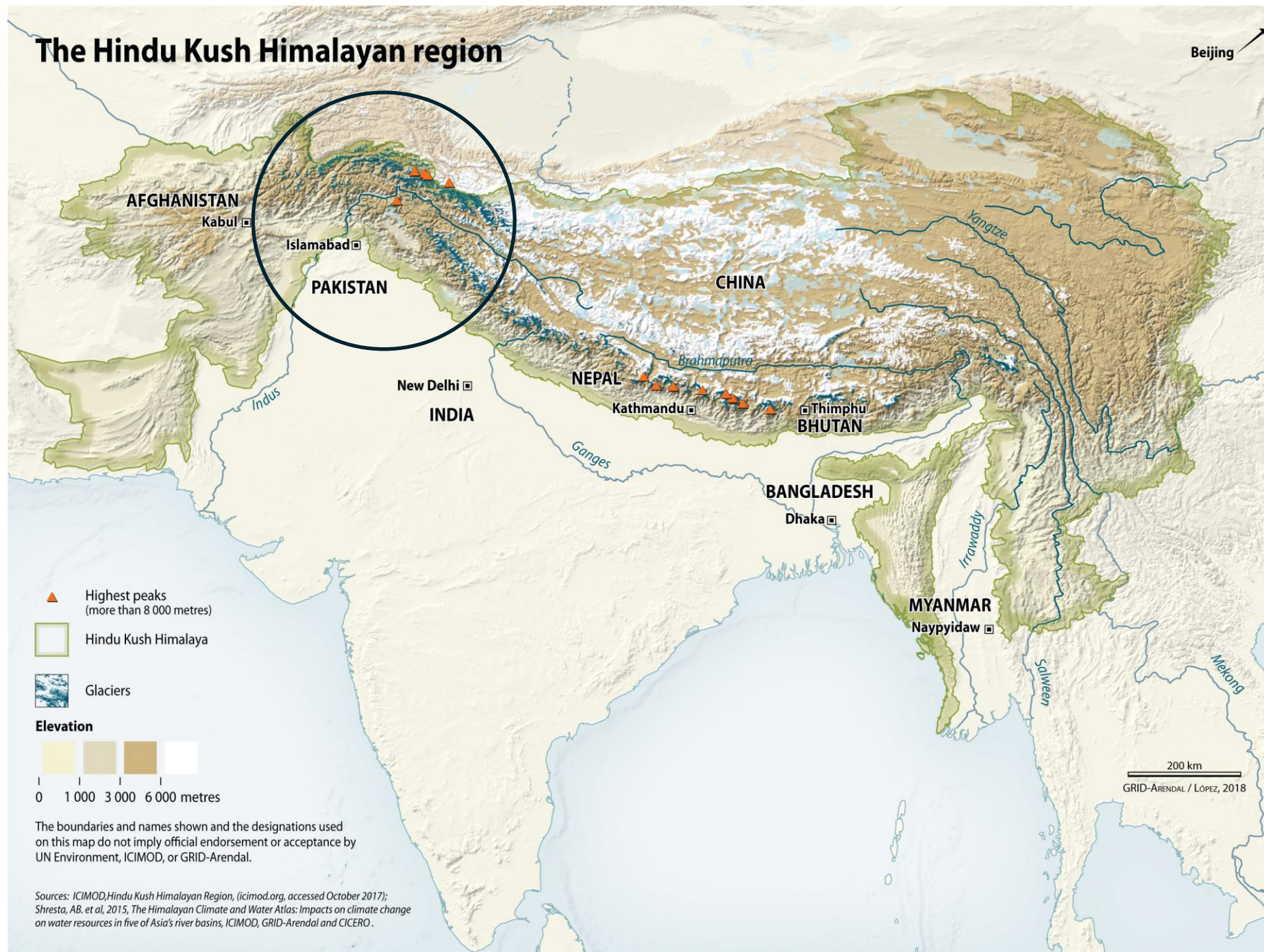
University of Akureyri

Forman Christian College (A Chartered University), Lahore

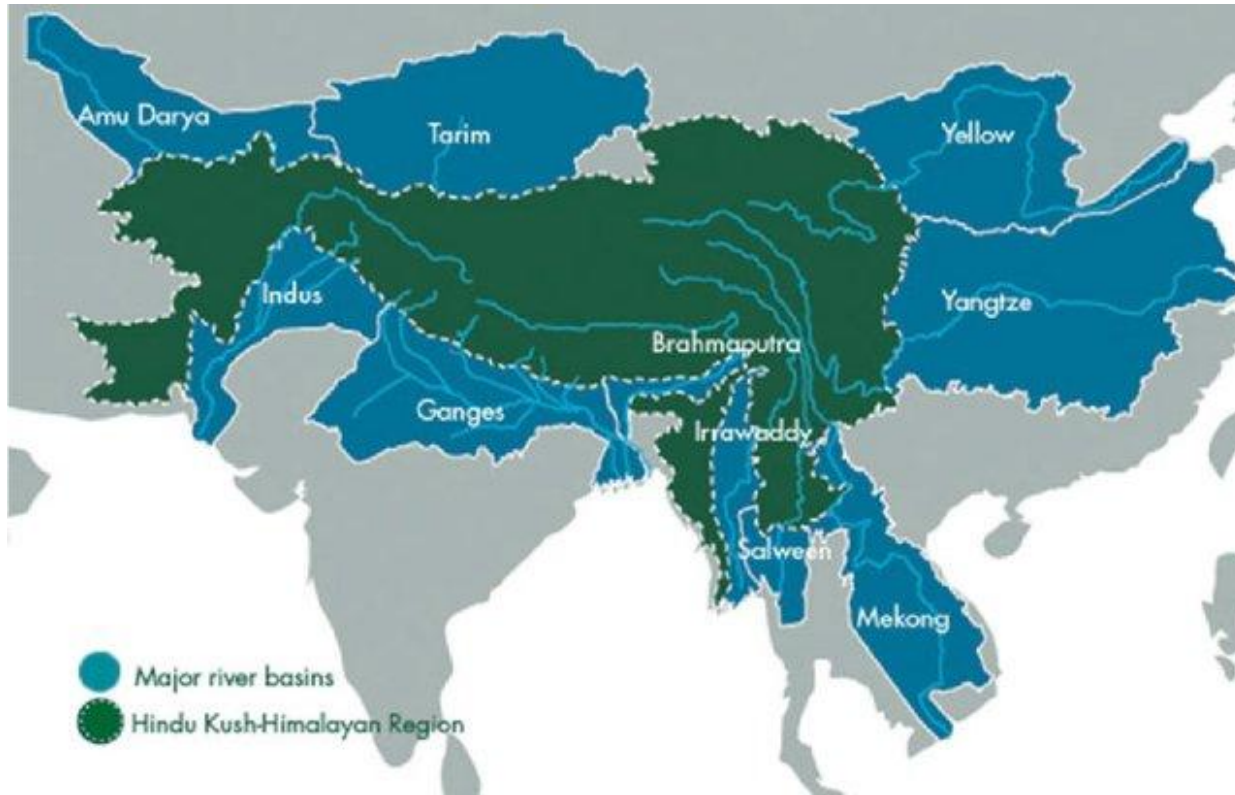
Shafqat Institute for Pakistan and Emerging Geopolitics



The Hindu Kush Himalayan region



The context of the Hindu-Kush – Karakoram – Himalaya region



Stretching over 3500 kilometres and across eight countries – **Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar and Pakistan** – the Hindu Kush Himalaya are arguably the **world's most important 'water tower'**, being the source of **ten of Asia's largest rivers** as well as the **largest volume of ice and snow outside of the Arctic and Antarctica**. Together these rivers support the drinking water, irrigation, energy, industry and sanitation needs of more than **1,5 billion people living in the mountains and downstream**.

The Hindu Kush Himalayas region and the 10 river basins emanating from it.

- **A region in major transition and change, not least due to climate change but also other drivers**
- **However not at all a homogenous region but on the contrary, extremely diverse nature and culture**

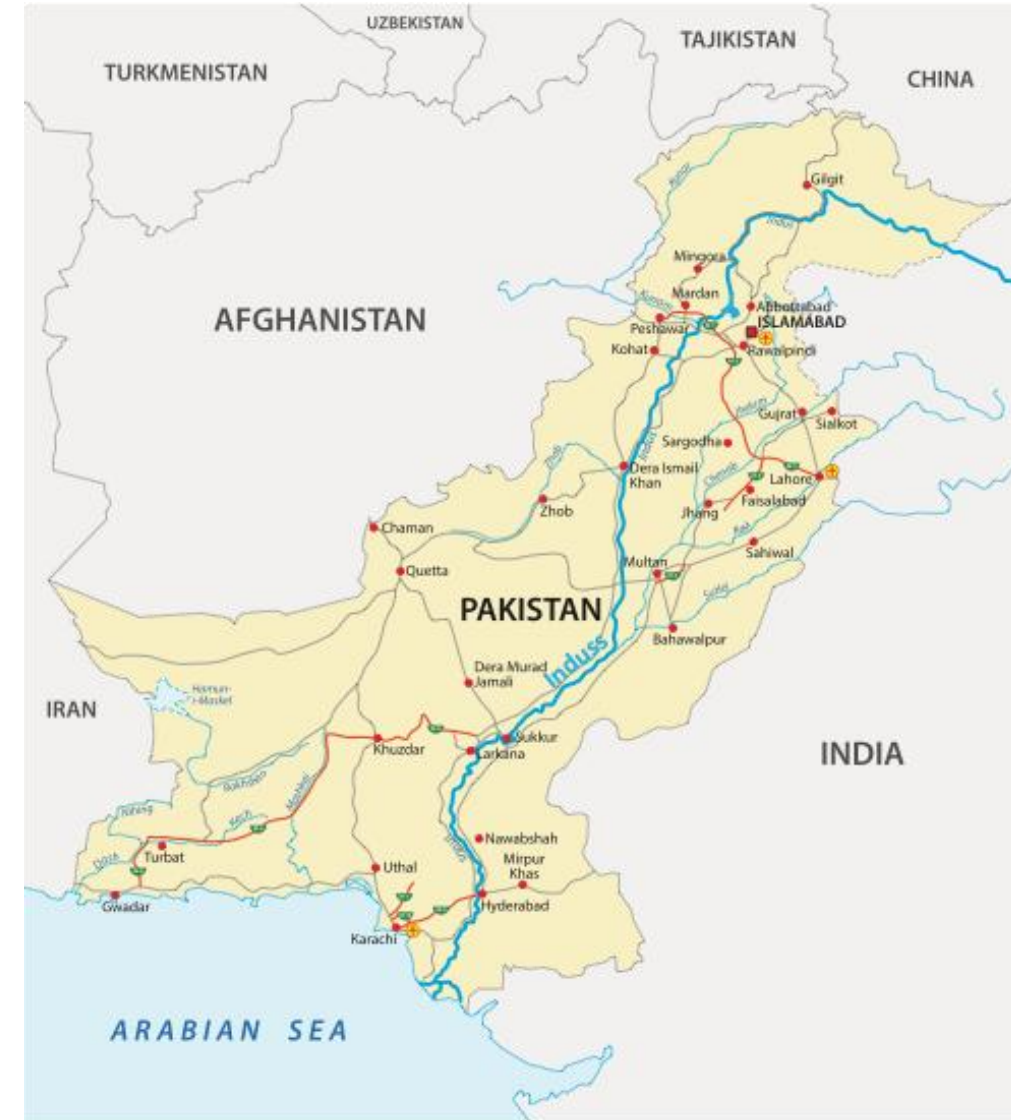
The three major mountain ranges all come together in N-Pakistan

- Hindu Kush
- The greater Himalaya range
- Karakoram



Gilgit Baltistan (GB) in N-Pakistan

“Where the Indus is young”



Karakoram Mountains in N-Pakistan

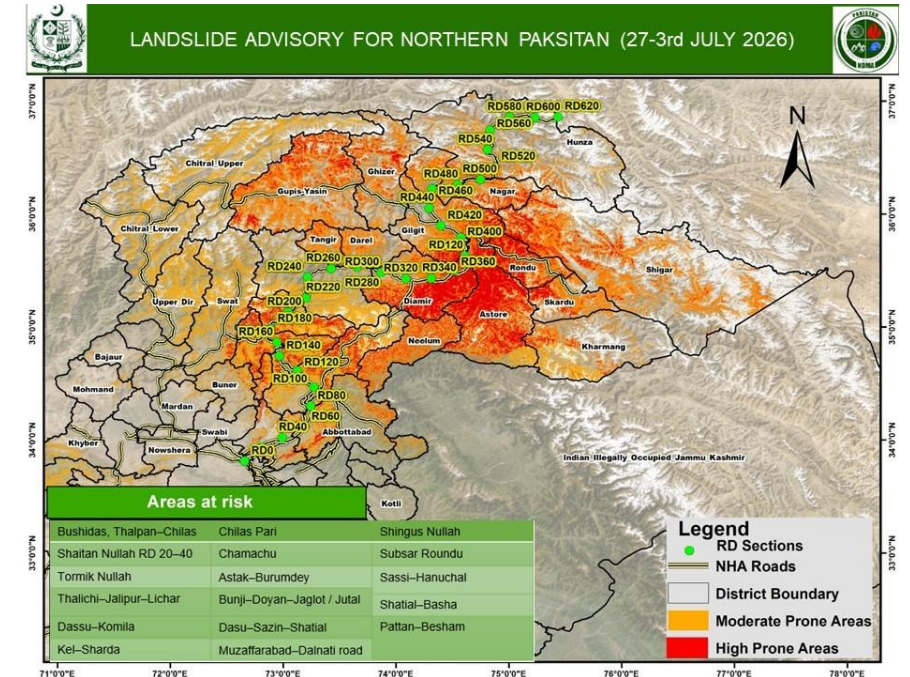
- Greatest concentration of HKH **glacier** landscapes
- Some of the **highest mountains** of the world, including K2
- **Extreme terrain** of wall-like mountains divided by major rivers like the Indus and its tributaries
- **Dry interior** of the Himalayas, connecting into Tibet deserts
- **Geopolitically very complex** at macro and micro scale - imperial and colonial legacies
- **Culturally diverse** where local people have historically adapted in multiple way to the extreme conditions to sustain their livelihoods
- Important **ecosystems and biodiversity**
- Multiple **development challenges** for local people





Climate change related challenges - in a region in transition

- Major changes manifesting in GB; driven by climate change.
- Multiple other transitions related to infrastructure, demographic and economic development
- Glacier melting and destabilization, permafrost thawing, mudslides, landslides, rockfalls, lake outburst floods
- Effects onsite on local people and livelihoods but also downstream
- The magnitude of the 2010 Pakistan floodings out of all proportions (flooded 1/5 of the country, 20 million affected, 2000 dead, economic loss scale of 10 billion US!)



Arctic-HKH research cooperation between Iceland and Pakistan

HOW TO GOVERN CHANGES IN MOUNTAIN GLACIER LANDSCAPES

- Advance knowledge on transitions and changes in GB N-Pakistan in a sustainable development context.
- Understudied geographical area, although of seminal importance for the country
- Needs much greater academic attention to inform and guide policy and decision making
- How can experiences be shared and scientific **knowledge be co-produced between Arctic and HKH**
- Current focus is on governance of conservation, socio-economic development, and wildlife management. Currently training of both Phd and Msc students.
- Seeking options expand the cooperation in Karakoram and HKH – focusing the multiple nexuses with climate change (energy, water, biodiversity, local people livelihoods, adaptive capacity, vulnerability, natural hazards etc.).



Funding sources



Hamza Farrukh,
Chairperson, Pakistan Climate Change Authority

Pakistan and its climate change
challenges





Dr Seed Shafqat,
Founder & Director, Shafqat Institute for Pakistan
& Emerging Geopolitics, Professor Emeritus,
Forman Christian College, Pakistan

**Governance
challenges in the
Karakoram**

Dr Tom Barry,
Dean of School of Humanities
& Social Sciences, University of
Akureyri

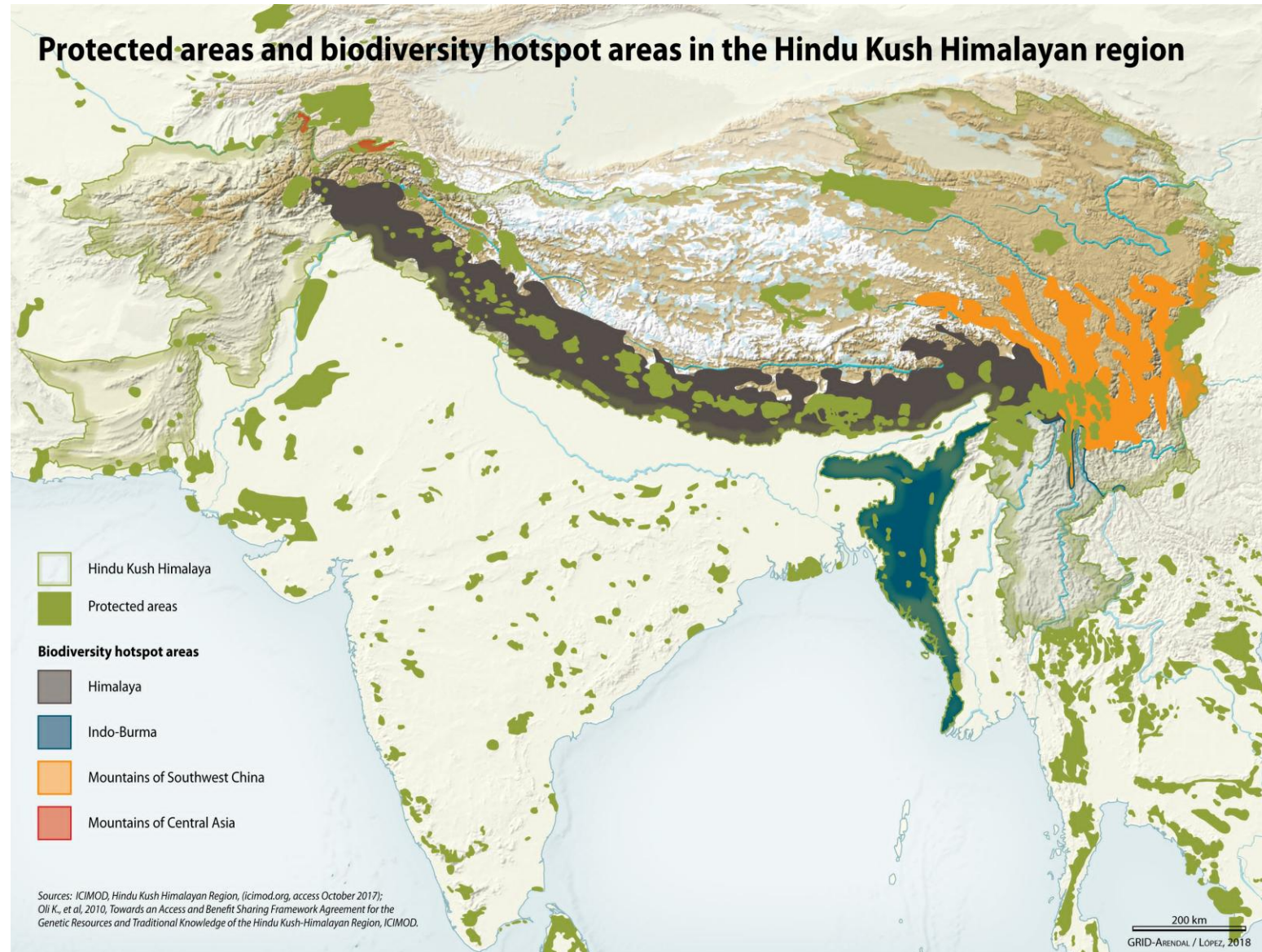
Iceland – glacier landscapes



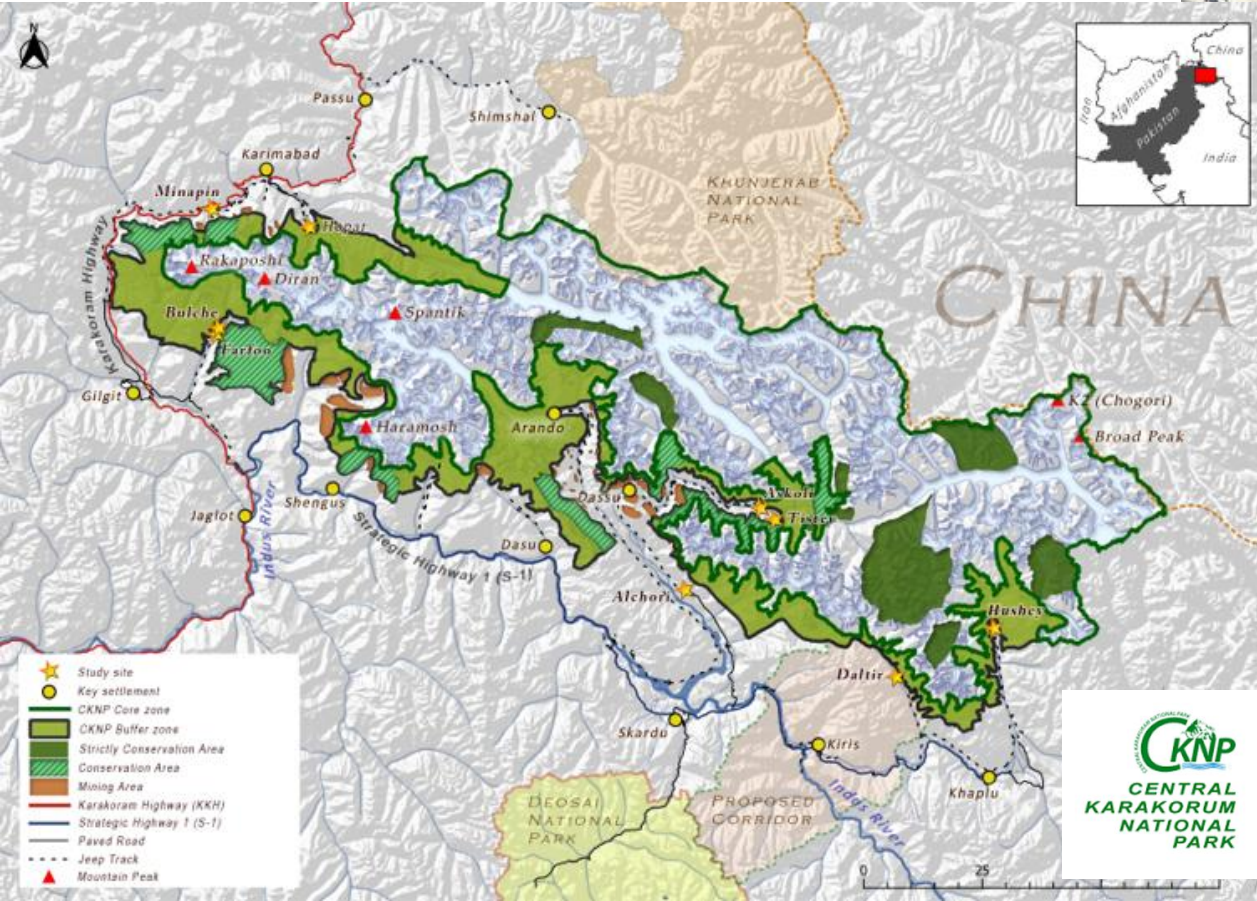
Karakoram, Pakistan glacier landscapes

**The Arctic – Hindu Kush Karakoram
Himalaya interconnections and venues
for co-production of new knowledge**

Mountain glacier conservation landscapes – 40% of Hindu Kush Karakoram Himalaya is in some type of conservation area



Ahmed Nawaz,
Doctoral Fellow, Environment
and Natural Resources,
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**Conservation governance in Gilgit
Baltistan: The Central Karakoram
National Park**

Örn Svavarsson,
Mountain Guide, Slodir travel



ism and business cooperation – N-Pakistan and Iceland













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Questions/ Discussion

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