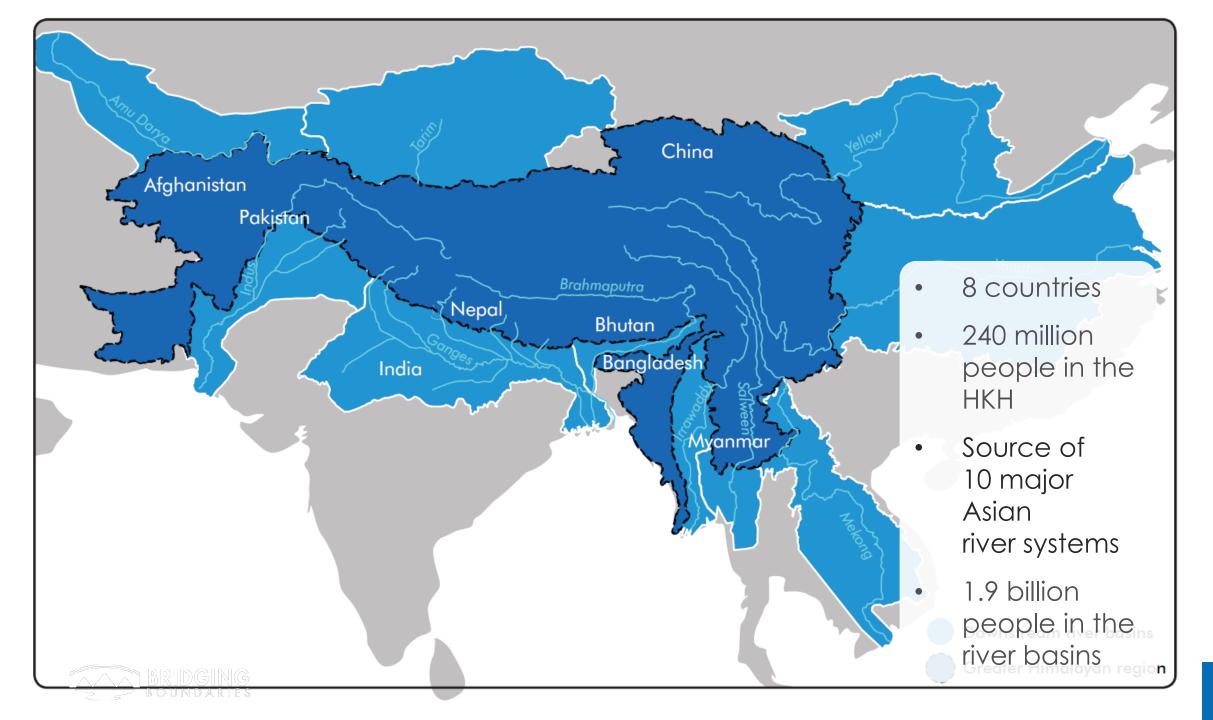


## River basin and transboundary

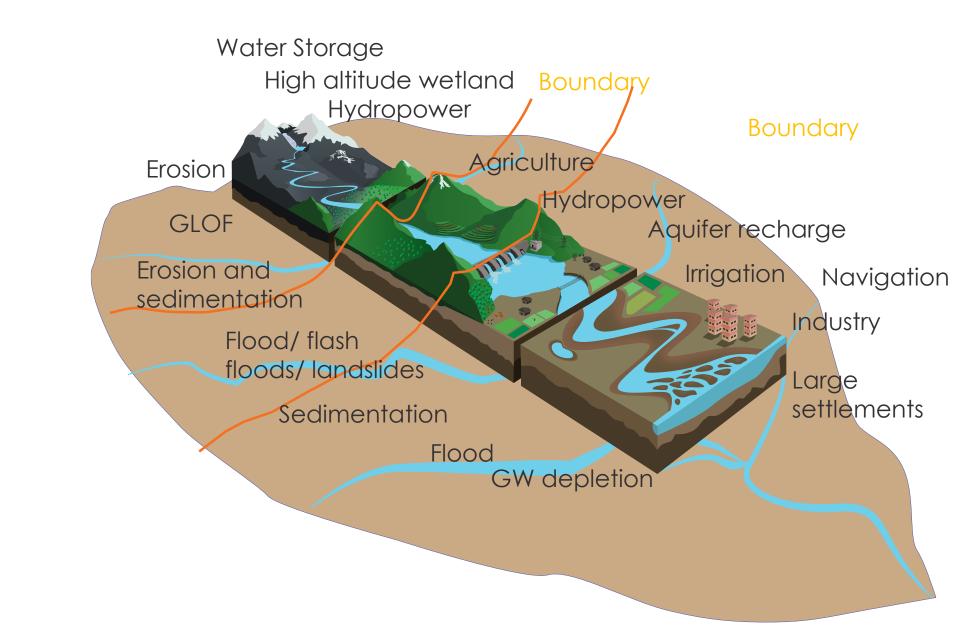
Iandscape approaches: Could WEFE nexus bring synergy to those approaches in South Asia?

Arun Bhakta Shrestha, Regional Programme Manager, ICIMOD

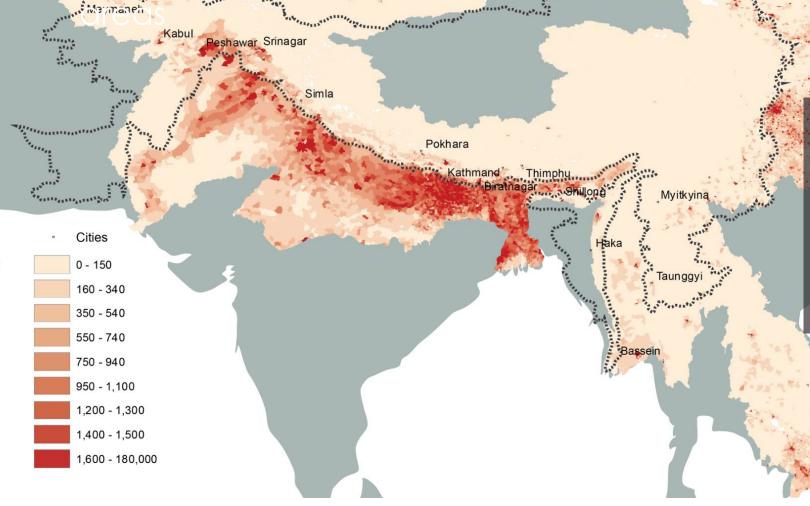
09 November 2020



# Upstreamdownstream Linkages



## HKH basins support some of the world's most populated



Population 1.9 billion in 2015
Up to 2.3 billion by 2050, 65% urban

- Increasing water and energy intensity in agriculture
- Water demand will double by 2050

# Transboundary opportunities, challenges and status

Water availability, Hydropower, Navigation

Floods, erosion and sedimentation

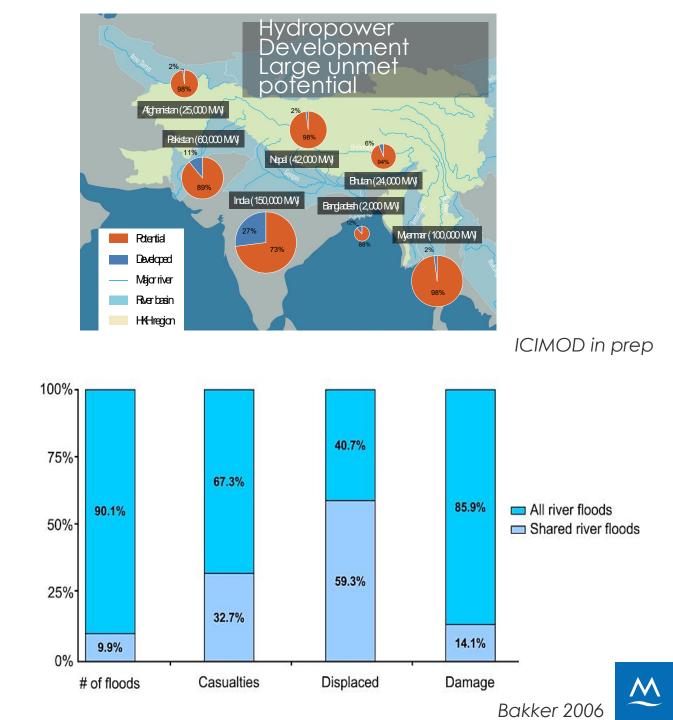
Limited cooperation:

bilateral vs regional, sectoral vs integrated; resources vs benefits

ICIMOD's efforts:

Science based cooperation

HKH Assessment > Call to Action > Ministerial Declaration (https://bit.ly/3eElnmu)



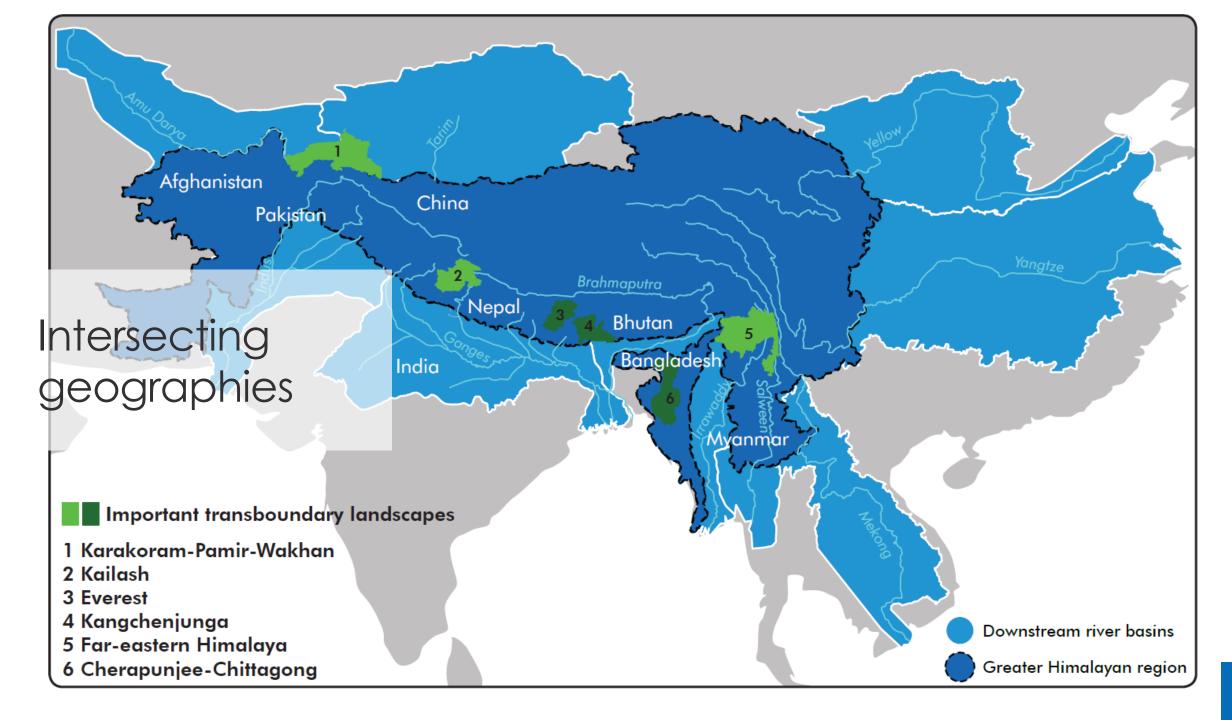
Why regional cooperation on water?

Manage varied distribution of water

Reduce risk of climate related effects making water supply erratic

Opportunity for overcoming economic, environmental, technological, and institutional barriers

Multiple benefits of infrastructure development



# Two approaches

### **River Basins**

Geographic framework River basin, sub-basin, watershed

#### Major ecosystem service Water, sediment, ecosystem, tourism, culture

#### Approaches IWRM, IRBM, WEF Nexus

#### Challenges

Climate Change, Cryosphere Change, Water scarcity, Water demand, nat hazards

#### Transboundary Aspect

U/D risk and benefits sharing: water sharing, energy, flood, navigation

## TB Landscape

Geographic framework Landscape

Major ecosystem service Biodiversity, Forest, rangeland, wildlife, tourism, culture (P-R-S)

Approaches Landscape approach

#### Challenges

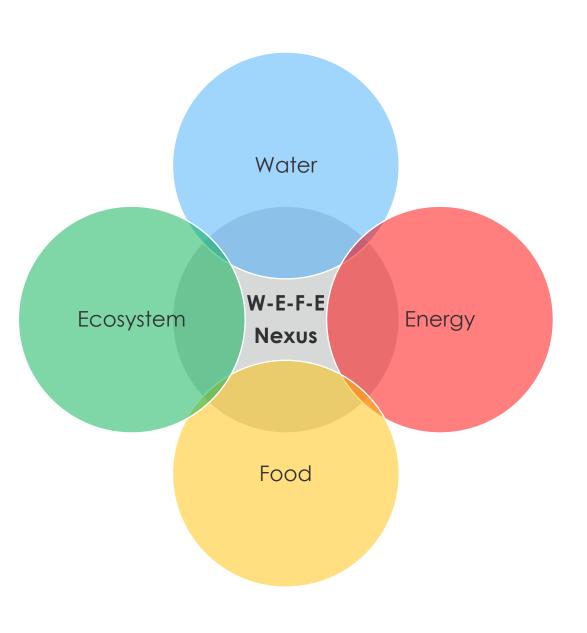
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Approach

Riverscape

Climate Change, Cryosphere Change, Water scarcity, permafrost, encroachment, loss of connectivity, over exploitation

#### Transboundary Aspect Landscape shared by different admin units



# The Riverscape approach

Natural resources and ecosystems services underlie water, food, and energy security.

Underlying principles

Interdependence of resources

Interdependence of sectors

Integrated policy solutions

Value natural capital

WEFE nexus – potentials for transboundary cooperation

New resources and approaches for TBC

Alter actor dynamics- engaging key actors

Reset TBC thinking –broader aspect of w,e,f and e security

 $\mathbf{M}$ 

What next? W-E-F-E Nexus in the context of HKH A mechanism for transboundary cooperation Piloting

