

ICIMOD

Basanta Shrestha

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# ESRI and ICIMOD Partnership

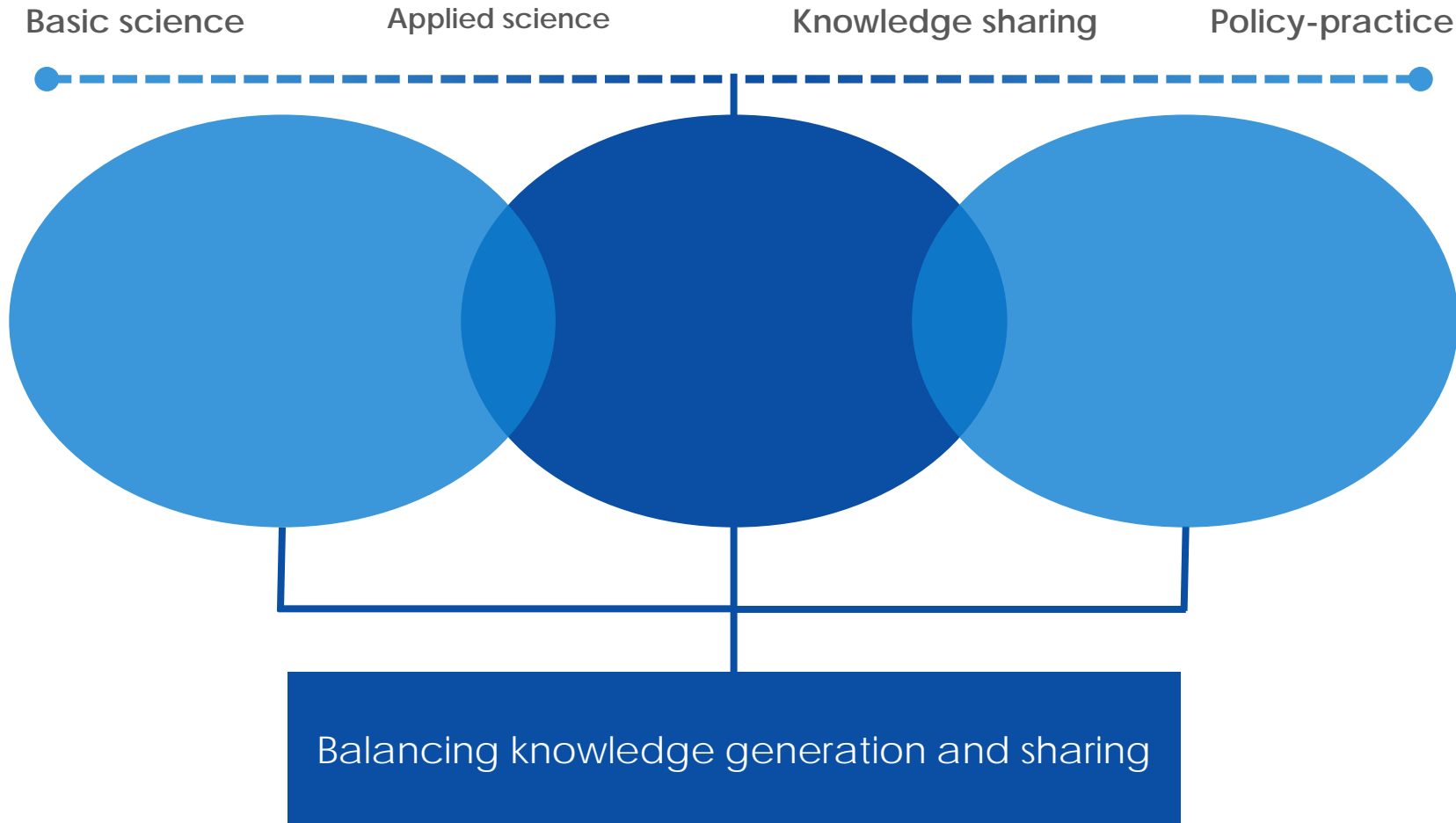




# The Hindu Kush Himalaya

Global asset for food, energy, water,  
carbon, and biological diversity

# Linking Science, Policy, and Practice



Earth Observation and Geospatial Technology and Innovation

# Mountain Environment and Regional Information System

Evidence-based decision  
support for planning and  
development at multiple  
levels

Improve access to data,  
tools, model and online  
mapping and visualization

Strengthen capacity of  
regional partners and south-  
south cooperation

Demand-driven decision  
support system and  
information services

Foster regional cooperation  
and build international  
partnerships



# Adaptation and Resilience Building

Enhance resilience to socio-economic and environmental changes, including climate change

- Community based disaster early warning system
- Climate smart agriculture
- Renewable energy solutions for mountain communities
- Springshed management



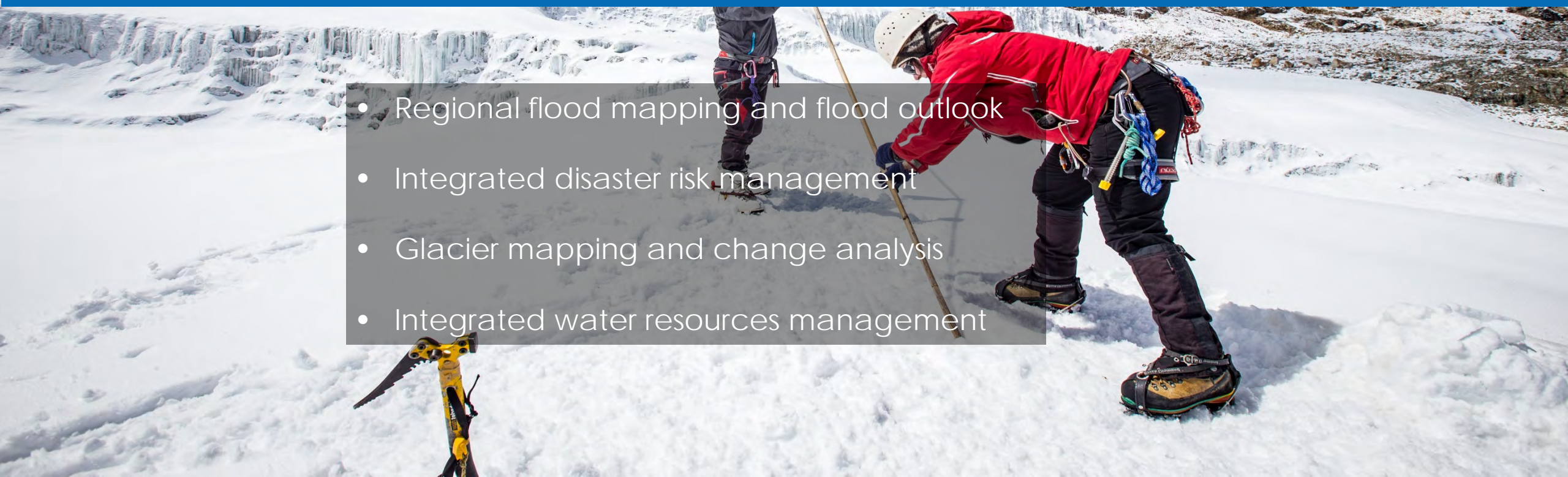
# Transboundary Landscapes

Sustenance of mountain  
ecosystem services and  
equitable livelihood  
improvements

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- An aerial photograph of a mountainous region. A river flows through a valley, with a suspension bridge crossing it. The surrounding landscape features terraced agricultural fields on the right and a rocky, sparsely vegetated slope on the left. The scene is captured in bright daylight, highlighting the textures of the terrain and the vibrant colors of the trees.
- Socio-ecological monitoring and assessment
  - Land use land cover mapping
  - REDD+ - MRV system
  - Springshed management


# River Basins and Cryosphere

Water resources management  
and disaster risk reduction in the  
areas of river basins and  
cryosphere linking up-stream  
and down-stream

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- A person wearing a red jacket, white helmet, and dark pants is using a long wooden pole to measure the depth of snow on a glacier. The person is wearing a harness and has a blue rope attached to their waist. The background shows a vast, snow-covered landscape with a glacier in the distance.
- Regional flood mapping and flood outlook
  - Integrated disaster risk management
  - Glacier mapping and change analysis
  - Integrated water resources management

# Atmosphere

Science-based knowledge on air quality, atmospheric processes, air pollution mitigation for improved environment and human health

- Air pollution monitoring – low cost sensor network
  - Transboundary Air pollution modeling and assessment
  - Air Pollution Solution - Brick-kiln mapping
  - Clean cooking solutions for mountain communities
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- A scenic view of a mountain valley with a town and a river, overlaid with a semi-transparent grey box containing a list of research topics. The background shows a lush green valley with a winding river, surrounded by dense forests and mountains under a clear sky. The foreground is dominated by tall, thin trees, possibly pines, with some autumn-colored foliage. The overall atmosphere is bright and clear, suggesting a good day for outdoor activities.



# Himalayan University Consortium

Enabling regional academic cooperation and nurturing a generation of scholar-leaders for sustainable mountain futures



## Our core values



Mountain focus



Transdisciplinarity



Diversity



Shared leadership

## Our strength

Our academic engagement has been expanding rapidly, with members and fellows across the world.

**85+**

HUC MEMBERS  
ACROSS THE GLOBE

**65+**

HUC MEMBERS  
ACROSS THE HKH

**120+**

FELLOWS

**~600**

INDIVIDUAL  
PORTAL USERS



**10+**

EUROPE

**3+**

NORTH AMERICA

**3+**

AUSTRALIA



# Humanitarian GIS Award

International Centre for Integrated Mountain Development

Basanta Shrestha

Sudip Pradhan

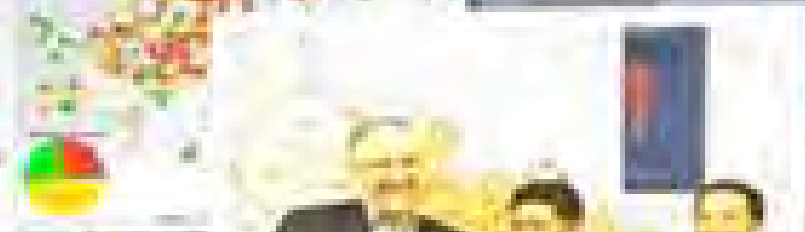
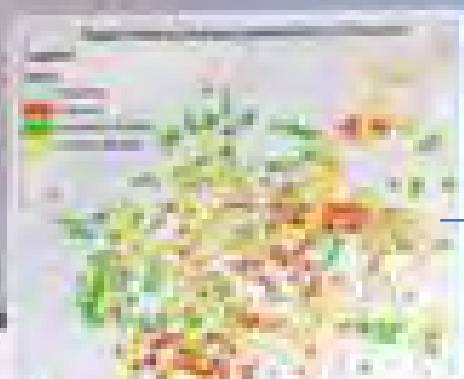


Photo credit: Saravi Shrestha

ICIMOD's Director of Strategic Cooperation Basanta Shrestha receives the Award in San Diego



• Thank you

Let's protect  
the pulse.