

Cryospheric responses to Anthropogenic Pressures in the Hindu Kush - Karakoram -Himalaya regions: impacts on water resources and Availability

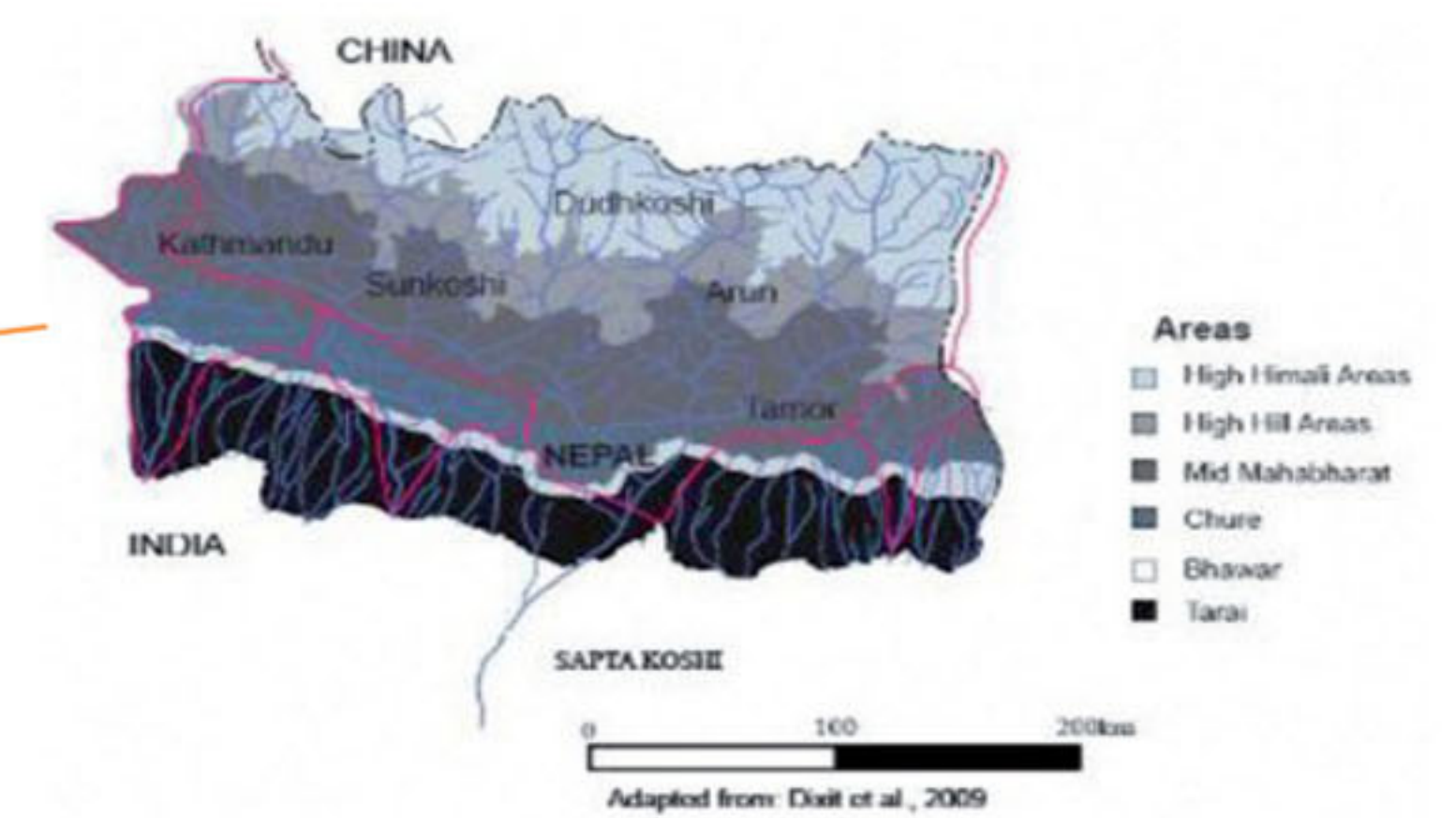
1 Study sites



Central Karakorum National park, Pakistan



The HKKH Region

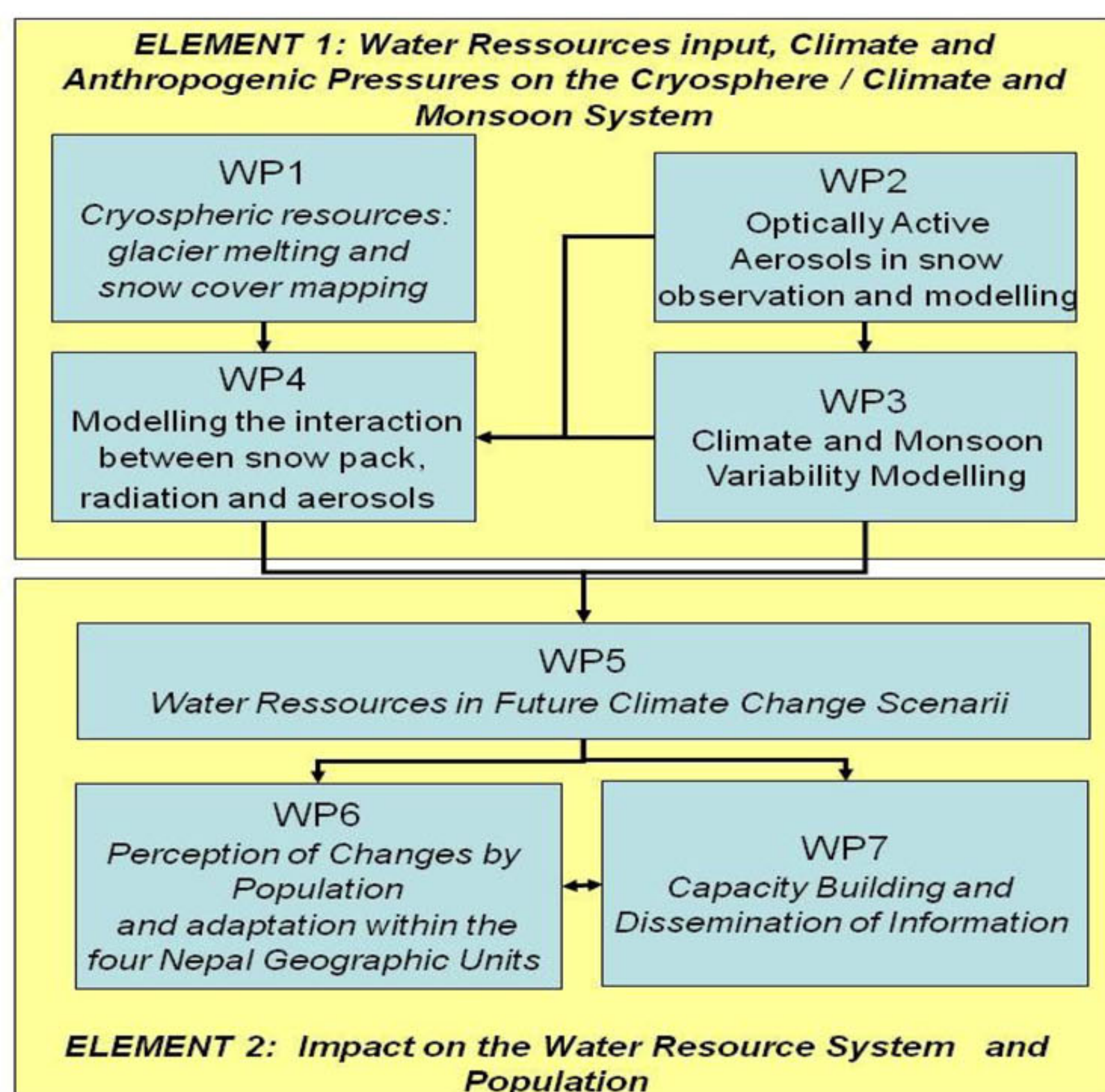


Koshi basin, Nepal

2 Objectives

1. To contribute to a more accurate assessment of glacier and snow cover changes in the HKKH region and a better understanding of the surface processes governing glacier and snow melt.
2. To quantify the relative contribution of seasonal snow cover and glaciers melting to regional water supply in the HKKH region.
3. To evaluate the distribution and variability of absorbing aerosol particles from anthropogenic and natural origin transported to the high altitude regions of HKKH.
4. To establish and model the current energy budget of snow surfaces, including the effect of absorbing aerosols deposited on snow and their impact on water melting rates.
5. To provide climate trends and scenarios at the regional level based upon an examination of results from an ensemble of models focussing on water availability and variability in the HKKH region.
6. To use these projections to quantify current and future water resource in the areas of Nepal and Pakistan
7. To study adaptation options of mountain communities to changes in water availability.
8. To propose plausible adaptation strategies for changing risks, including analysis of their economic efficiency and benefits within the social welfare context.

3 Information Flow



4 Partnership



5 Contacts

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