



# Snow Accumulation and Melt Dynamics in a Himalayan Watershed: Observations and Modelling



Norwegian  
Water Resources and  
Energy Directorate



## Background:

The Norwegian Ministry of Foreign Affairs has entered into an Agreement with the International Centre for Integrated Mountain Development (ICIMOD) for the period 2013 – 2017. In accordance with the Agreement's Article IV Contributions and obligations of ICIMOD, ICIMOD signed a Letter of Agreement (LOA) with the Norwegian Water Resources and Energy Directorate (NVE) on 31 March 2014 for the period 2014 – 2017. The two parties have agreed that the contract shall be under ICIMOD's Regional Programme Cryosphere and Atmosphere and attached to the Strategic Thematic Area Water and Air (ICIMOD MTAP – III Medium-Term Action Plan 2013 – 2017). The main goal of the project is to increase the understanding of the snow accumulation and melt dynamics in Hindu Kush Himalayan watersheds, while the impact might be a more sustainable management of water resources and flood risk reduction, and to improve the living standards of mountain people in the region.

## Activities:

An overview of main programme activities is given below, theme by theme.

- Snow monitoring: Satellite remote sensing, ground instrumentation and field studies in the case study watershed
- Modelling snow accumulation and melt rates in the case study watershed
- Dissemination, knowledge exchange and synthesis of the results and implications for the wider Hindu Kush Himalayan region

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## Overall Project Data

Partner: International Centre for Integrated Mountain Development (ICIMOD).

NVE Mandate: To contribute to increased scientific knowledge on snow melting and accumulation dynamics in the Hindu Kush Himalayan watersheds and on role of snow melt for the water resources in the area, and to share and increase the knowledge on snow measurement, analysis and modelling techniques and the challenges of their application in the Hindu Kush Himalayan Mountain environment.

Contract Value/ Duration: 6 MNOK / 2014-2018.

