Strengthening Climate Change Adaptation in Himalayas (SCA-Himalayas)

CONTEXT

The Global Climate Risk Index 2021 ranks India among one of the most vulnerable countries to climate change. The Government of India has encouraged all the states to develop action plans on climate change outlining the relevant climate strategies across key sectors for climate mitigation and adaptation. Although the Himalayas represent only 16% of the country, they shelter one of the most vulnerable ecosystems, requiring special attention. Responding to the Government of India's request for Swiss expertise, SDC supports the Indian Himalayan States to strengthen climate change adaptation.

During the first phase of the project (3SCA, 2016-19) SDC supported the States of Sikkim, Uttarakhand and Madhya Pradesh to assess sectoral vulnerabilities, to develop tools and to implement adaptation actions. The project's second phase (SCA-Himalayas) focuses on Disaster Risk Management (DRM) and Water Resource Management (WRM) in mountain ecosystems fostering resilience against climate change in the according sectors. The project supports pilots in the Himalayan states of Sikkim, Uttarakhand, Manipur, Himachal Pradesh and Ladakh. Through a close collaboration with relevant government institutions at local, state and national level the project builds capacities for replication of pilot interventions in the Himalayan States and supports policy uptake.

OBJECTIVES

The project aims to enhance resilience of the mountain communities in the Indian Himalayan Region (IHR) by integrating climate actions into national and sub-national planning and implementation.

Specific approaches and tools are developed, and shared through capacity building for replication and institutionalization. SDC brings on board Swiss, regional and Indian expertise through technical support for climate change adapted water resource management, science based springshed management and to pilot early warning systems for Glacial Lake Outburst Floods (GLOFs), landslides and flash floods.

Natural Resource Management

Disaster Risk Management

PROJECT AT A GLANCE

Area: Adaptation and Risk Mitigation

Duration: February 2020 - December 2025 (Phase 2)

Budget: CHF 5'800'000

Implementation Partners:

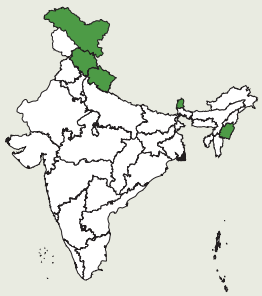
- Project Implementation Unit (PIU) managed by SDC in India
- Swiss experts from academia and private sector
- Other international, regional and national partners from academia, NGOs, intergovernmental institutions

Partners:

- Ministry of Environment, Forests and Climate Change (MoEFCC)
- National Disaster Management Authority (NDMA)
- NITI Aayog
- Department of Science and Technology (DST)
- Ministry of Jal Shakti
- State Governments from Uttarakhand, Sikkim, Manipur, Himachal Pradesh and Ladakh

Geographic Focus:

Uttarakhand, Sikkim, Manipur, Himachal Pradesh, Ladakh and other Himalayan States of India



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KEY ACHIEVEMENTS

- Publication of a resource book on springshed management in IHR in close collaboration with NITI Aayog, Government of India.
- Implementation of field pilots fostering springshed management based on a combination of science-based assessments, capacity building and community action.
- Replication and upscaling of springshed management using aquifer based approach.
- Development of Glacio-hydrological and Water allocation models, Integrated Water Resources Management (IWRM) plan for Bhagirathi Basin and associated guidelines and trainings.
- Development of a Climate change Decision Support System (CC-DSS) for a multi-purpose reservoir in Madhya Pradesh and guidelines for its use and upscaling.
- Development of a landslide susceptibility model and hazard mapping for Bhagirathi Valley in Uttarakhand.
- Training for government officials on application of Synthetic Aperture Radar (SAR) data for disaster risk management.
- First-order assessment of GLOF risk for Sikkim, detailed hazard modelling and installation of monitoring stations for GLOF Early Warning System, for two critical glacial lakes in Sikkim.

INITIATIVES UNDER SCA-HIMALAYAS PROJECT

- Development of an early warning system for GLOF in Sikkim.
- Design of an Early Warning System for Flash Floods in Parvati Valley, Himachal Pradesh.
- Climate Change Risk Assessment and Mapping at District and State Level in India using a common framework.
- Glacio-hydrological model, Integrated Water Resources Management (IWRM) plan and Decision Support System (DSS) for Bhagirathi Basin in Uttarakhand.
- Demonstration, capacity building and upscaling of innovative science-based integrated springshed management.
- Modelling of rock-ice avalanches for large-scale hazard mapping in Uttarakhand.
- Capacity building for key institutions officials, technicians and scientists etc. to design, implement and monitor climate change actions.
- Development of guidelines for upscaling of climate change actions in the Himalayan Region and integration into policy frameworks.
- Sharing the innovative approaches and experiences across the Himalayan region including in the international community.

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ABOUT SDC IN INDIA

The Swiss Agency for Development and Cooperation (SDC) has been a partner of India for more than 60 years. Since 2011, SDC's engagement focuses specifically on climate change adaptation and mitigation, and other environmental challenges. The office in India is part of SDC's strategic engagement on Climate, Disaster Risk Reduction and Environment. As part of its regional and global initiatives, SDC also has ongoing activities related to food systems, water and health in India.

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