Demonstrating Evidence Based Adaptation Planning in the Indian Himalayan Region

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IHCAP: Supporting Country System

- Anchored under framework agreement on technical and scientific cooperation, 2003 between the Government of Switzerland and the Government of India

- IHCAP functions as a “technical and knowledge partner” for implementation of the National Mission for Sustaining the Himalayan Ecosystem (NMSHE)

- IHCAP Goal: “resilience of vulnerable communities in the Himalayas is strengthened and knowledge and capacities of research institutions, communities and decision-makers are connected and enhanced”
Collaboration with Government of Himachal Pradesh

- Since 2012, SDC and Department of Environment, Science and Technology (DEST) are cooperating under Indian Himalayas Climate Adaptation Programme (IHCAP)

- Focus areas:
  - Capacity Building and Training Programme on Climate Change Adaptation Planning and Implementation for State Government officials
  - Technical Assistance for development of an adaptation project on climate smart agriculture under National Adaptation Fund for Climate Change
  - Indo-Swiss Collaborative Research on Integrated Vulnerability, Risks and Hazard Assessment in Kullu district
  - Design of adaptation measures for Kullu district
Demonstrating Evidence Based Adaptation Actions in Kullu

Stage 1: Scoping to review baseline information, to identify vulnerable regions in Kullu districts (2012-13)

Stage 2: Development of framework for the Collaborative Research (2013-14)

Stage 3: Integrated Vulnerability & Risks and Hazards Assessment in Kullu district (2014-15)

Stage 4: Identification of Adaptation options and development of proposals for their implementation (2016)
Workshop held in Kullu for sharing the results of Assessment in Phase 1 and for prioritization of adaptation options (May 2016)

Consultation workshop organized on 21 November 2016 at Shimla to finalize DPRs

Consultations held with communities in GHNP (May 2016)
Indo-Swiss Collaborative Research in Kullu

- Framework for Integrated Vulnerability and Risks Assessment developed
- Joint research work (India and Switzerland) on vulnerability, risks and hazards assessment in Kullu district in partnership with DEST, Government of Himachal Pradesh
  - 40 contributing authors from 15 Indian and Swiss institutions involved in the study
  - More than 10 studies on baseline and sectoral assessments undertaken
  - More than 37 publications in scientific journals, national and international conferences
- Result of joint research in Kullu district; common framework will enable planning and implementation of adaptation actions at the state level
Key assessment findings

Atmospheric Baseline

• Local climate assessment (1981 – 2010) demonstrates increase in mean annual air temperatures across all elevation levels

• Increasing trend for spring temperatures of about 1°C over 30 years, stronger at higher elevations
Key assessment findings

Vulnerability of the agriculture sector

• Perceived climate impacts across the blocks of Kullu included: warmer and prolonged summers, delayed onset and uneven distribution of SW monsoon, shorter and warmer winters, decreasing snowfall during winters.
• Diseases in agriculture/horticulture crops are reaching higher altitudes, where they were not earlier reported.
• Some coping measures are already occurring, eg, a shift of the fruit belt to higher altitudes, a shift from vegetables like, tomato, cauliflower and cabbage to horticultural ‘cash’ crops.
• Banjar was identified as a hot-spot of agricultural vulnerability, based on both quantitative assessment and farmers perceptions.
Adaptation Project
Promoting Climate Resilient Agri-Horticulture in Banjar

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Proposed Interventions

• Promote high density spur variety (low chilling) apple and pomegranate cultivation by providing suitable imported plant with chilling hours 600-800 hrs and farmers training

• Provide anti-hail nets and creation of pollinators colony across the orchard for reduction of damage of fruits and enhance pollination

• Facilitate micro irrigation in the high density orchard through creation of water source eg poly lined tanks and bore wells and establish source to tank facilities
Proposed Interventions

- Creation of small farm based cold storage units of 1-5 Mt capacity
- Creation of packaging line and controlled atmosphere storage facilities

The interventions will benefit 1500 individuals
Latest developments

• The Government of Himachal Pradesh has endorsed the proposal

• The adaptation proposal seeking funding under India’s National Adaptation Fund on Climate Change

• The proposal is currently under review
Thank you

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