



# Capacity Building for Reviving Drying Springs in Bhutan

There is mounting anecdotal evidence that springs across the Hindu Kush Himalaya (HKH) are drying up, causing unprecedented water stress on communities. As part of the Brahmaputra Special Project, the International Centre for Integrated Mountain Development (ICIMOD) and the Advanced Centre for Water Resources Development and Management (ACWADAM), along with the Watershed Management Division (WMD) under Bhutan's Ministry of Agriculture and Forests, have conducted detailed practical trainings for field technicians and implementers on spring revival and plan to pilot spring revival sites in Bhutan. The project is funded by the Australian government's Department of Foreign Affairs and Trade (DFAT).

It is widely believed that changing land use, infrastructure development, and climate change affects spring flow, taking a toll on communities. Bhutan's government lacks data on the cause and extent of the problem but has recognized spring revival as a priority area for action. In Bhutan's twelfth Five Year Plan (2018–2023), spring and springshed management is a focus area for the WMD.

ICIMOD

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Aid** 

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Participants of the workshop on springs and springshed management in Thimphu in November 2017.

## Major activities

- Organized a workshop on “Springs and Springshed Management for Reviving Drying Springs” in Thimphu and a field excursion to Sikkim to learn about its successful spring revival programme. The two events, in November 2017, were attended by field officers working in water resource management in Bhutan.
- Developed a research-cum-implementation and capacity building program based on findings from these events. Developed a protocol for reviving springs and tested it at pilot sites in India and Nepal. A detailed technical manual to be published by ICIMOD and ACWADAM in 2018 will form the basic textbook for spring revival training.

- Organized a two-week technical training to build the capacity of technicians responsible for implementation in the field.
- Trained 28 foresters from each forest division and park in Bhutan in springshed management and revival.
- Supported the participation of three staff members from the WMD and National Environment Commission of Bhutan in a writeshop for spring revival programmes in India, Nepal, and Bhutan.

## Activities planned for 2018

- Support the WMD in piloting spring revival sites. ACWADAM, WMD, and ICIMOD will conduct hydrogeological and social surveys for the pilot sites, delineate recharge areas, and guide implementation. Interventions will be planned based on survey results.
- Provide technical support to WMD on their ongoing World Bank-funded project on climate resilience.



Participants collect hydrogeological data during the two-week training on spring revival and management