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Murray-Darling knowhow finds its way to Asian river basins

Scientists from CSIRO are applying their knowledge of transboundary river basin management to the challenge of improving the livelihoods of people living in some of the poorest parts of Asia. The organisation and its partners have begun working in the Koshi River Basin, which stretches from China, across the Himalayas through Nepal and discharges into the Ganges River in India.

Credit: Santosh Nepal

The Koshi Basin is home to millions of people who rely on its fertile floodplains for their livelihoods. Development challenges in the Basin include population growth; an increasing demand for energy; and natural hazards exacerbated by a changing climate, such as floods, drought, landslides, sediment movement and debris flow.

In the collaborative four-year project, CSIRO scientists will provide technical assistance to the **International Centre for Integrated Mountain Development's (ICIMOD) Koshi Basin Programme** .

Scientists will develop an integrated basin-wide modelling system to improve management of the Basin. The system will incorporate information on water availability, freshwater environments and the ecosystem services they provide, and social considerations such as the effect of changes in water availability on livelihoods.

'Australia has a long history of managing a scarce and variable water resource, and sharing this resource amongst competing users,' said CSIRO's Water for a Healthy Country Flagship Director, Dr Carol Couch.

'There is much the Australian water experience will bring to this project to help improve sustainable development and climate resilience, reduce water stress, and inform water-related decision making and transboundary issues.

'We will draw on the suite of large river basin assessments undertaken across Australia in recent years, such as the Murray-Darling Basin Sustainable Yields assessment.

'Research will be undertaken as a partnership between Australian organisations and ICIMOD researchers, based in Nepal. We will also be learning from ICIMOD, particularly in relation to sediment movement, snow melt and glacial processes.

‘At ICIMOD, we have taken a long-term, transboundary approach to support river basin management. This includes testing, piloting, and monitoring the innovations needed to address common issues related to climate change, cryosphere, water resources management and livelihood promotion,’ said Dr David Molden, Director General of ICIMOD.

‘The Koshi Basin Programme will provide a platform for national and international researchers and decision makers to come together to promote transboundary cooperation and integrated water resource management practices and policies. This will also include the development of measures for risk management as well as equitable access to water for energy and food security.’

Source: CSIRO