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Disaster Risk Management

South Asia is the most disaster prone region in the world, with many of the disasters occurring in the Hindu Kush – Himalayas or in the water basins of the rivers draining these mountains. Water-induced disasters, such as riverine floods, flash floods, and landslides and debris flows triggered by intense rainfall events, have increased during the last decades and is predicted to cause even more havoc in the future due to climate change impact.

The challenges related to flash floods, including glacial lake outburst floods (GLOF), is currently being addressed by ICIMOD. A training manual for flash flood management have been developed for awareness creation and capacity building. GLOF risk assessment work is now ongoing with a purpose to update the inventory of potential dangerous lakes in the HKH, and to undertake field assessments of the GLOF risk at selected lakes. ICIMOD have developed a set of criteria for determination and rating of potentially dangerous lakes. During 2009, field work is being conducted at three lakes in Nepal.

On a larger scale, ICIMOD is addressing the occurrence and mitigation of regional floods. There is great urgency to improve data collection and sharing within and between countries. ICIMOD have developed a web-based system for sharing of precipitation and discharge data in a transboundary upstream-downstream context. A pilot project have been conducted and ICIMOD is now planning to support continuation and upscaling of these activities. Lack of access to data pose particular challenges. In an attempt to overcome this, ICIMOD is also exploring the possibility to use rainfall estimations based on satellite information as a component in early warning systems for floods and flash floods.

Climate change is likely to increase challenges related to floods and water stress. Therefore, it is important to strengthen people's capacities to adapt to such challenges. ICIMOD is currently coordinating a group of field teams for documentation of current adaptation strategies to too much and too little water. In parallell, existing policies with an implication for peoples adaptation capacities are being identified and assessed. From the findings, good as well as bad examples on adaptation will be communicated to a wider audience in an attempt to guide future work to support climate change adaptation.