

# Demonstration Project on the Dwelling Reconstruction and Resettlement in the Earthquake-stricken

## The Challenge

China's water resources are mainly distributed in the southwest region which is known to be geologically complex and prone to disasters. Many hydropower facilities constructed in the region a therefore are threatened by big geological risk as manifested in the May 12 Wenchuan Earthquake. In Sichuan province alone almost 2000 dams suffered various level of damages in the major Earthquake, among them 69 reservoirs posted potential threats to downstream cities and villages. Among the hardest hit is Wudu Diversion Project located near the epicenter. Preliminary assessment showed a loss as high as RMB 405 million. The 2.82 million mu farmlands in 10 counties and a population of over 10 million in the catchment areas are threatened by the elevated risks caused by the earthquake.

## The Response

In recognition of the potential risks and at the specific requests of the Government of China, UNDP set up the project to assist the Government and relevant authorities in strengthening seismic safety of hydropower projects, ensuring the safe and sustainable recovery and reconstruction in catchment areas, and improving the emergency management capability of hydropower infrastructure projects in China. The main activities including:

- A series of researches, investigations and on-site experiments have been conducted to assess the earthquake impact on hydraulic structures and explored technical methods of strengthening hydropower safety and risk management.
- Two international workshops have been held in Chengdu and Brazil .Two coordination meetings were held in 2009 gathering relevant project partners, Government agencies, technical agencies and research institutions to discuss on the progress of the projects, findings of researches by phases, gaps remained and follow up actions needed in the project implementation.
- The project website "Strengthening Hydropower Safety Project Web" (<http://www.crisismanagement.net.cn/>) officially went into service.
- A new specification of monitoring the safety of hydraulic structure under strong motions has been drawn up.

•Emergency response measures and environment protection approaches adopted in response and recovery phases were recorded and studied.

Key achievements:

- Through collaborating with international counterparts, national authorities improved their capacity in researching and managing seismic safety of dams and hydropower stations. The experience gained in response to the earthquake also contributed to the modification of national specifications and emergency management of hydropower projects.
- The analysis of the dam behaviors after the major earthquake has given valuable insight for the seismic safety analysis of existing as well as for the design of future arch dams. Based on findings of the assessment and research, the project supported the recovery work of key hydraulic structures and benefited over 10 million people in the catchment areas.
- Through collaboration and exchange, not only China benefited from the global practices and knowledge on hydraulic safety, China's experience and lessons learned from Wenchuan Earthquake also contributed to international communities in preparation of similar crisis in the future.

## At A Glance

Project Start Time: January 2009  
 Project End Time: December 2010  
 Executing Agency: CICETE  
 Implementing Agency: Ministry of Water Resources,  
 National Development and Reform Committee  
 Project ID: 00070776.

UNDAF Outcome 3: By the end of 2010, more efficient management of natural resources and development of environmentally-friendly behavior in order to ensure environmental sustainability.

Country Programme Output 7.5: Capacity to analyze and manage risks at the national and selected communities strengthened.

Norwegian Government: US\$ 1,000,000  
 Total Budget: US\$ 1,000,000

To contribute to this initiative, or to find out more about the project, please visit our website or contact us at 86-10-8532 0800 or [registry.cn@undp.org](mailto:registry.cn@undp.org)

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