

## Vietnamese Small Hydro Project Dam Safety Plans



### BACKGROUND

As part of the World Bank's Renewable Energy Development Program (REDP) for Vietnam, the Vietnamese Ministry of Industry and Trade require adoption of a Dam Safety Framework (DSF) for all small hydropower projects financed under the REDP. The World Bank's policy on safety of dams (OP.4.37) requires four dam safety plans within the DSF:

- a Construction Supervision and Quality Assurance Plan
- an Instrumentation Plan
- an Operation and Maintenance Plan
- an Emergency Preparedness Plan.

The World Bank REDP is expected to fund construction of 20-25 renewable energy projects, mostly small hydro projects, each in the range of 1-30MW, in Vietnam. Damwatch, assisted by the Water Resources University of Vietnam, prepared dam safety plans for a pilot project, Sung Vui Hydro Electric Project. Sung Vui is one of six small hydropower stations (SHP) in the Lao Cai Province of Vietnam. Once operational, Sung Vui will have a 15MW capacity.

### PROJECT OBJECTIVE

The objective was to prepare a pilot set of Dam Safety Plans, and then prepare Guidelines for writing similar plans for all other SHP's in Vietnam, which would ensure that hydro dams are built and operated safely, with improved quality control. The plans written for the Sung Vui pilot project would be able to be replicated on other SHP's in Vietnam and beyond.

### DAMWATCH SERVICES

- Reviewed the World Bank Safeguards Operational Policies of the World Bank and Dam Safety Framework applied for REDP, especially OP4.37.
- Field Trip – visit to Sung Vui to investigate the site conditions (topography, geology, hydrology, proposed construction arrangements). Damwatch experts liaised with the developer, local consultant and local government to understand usual practice in Project Management and Project Implementation in Vietnam.
- Preparation of Pilot Plans, for Construction Supervision and Quality Assurance, Dam Safety Instrumentation, Operation and Maintenance and Emergency Preparedness.
- Preparation of the Guidelines for preparing similar plans for other sites – the guidelines included key instructions for preparation of the plans, describing the process step by step from collecting information to documentation.
- Dissemination Workshop – A workshop was held in Hanoi with potential developers, commercial banks and design consultants. The workshop presented a practical approach and key instructions for preparation of the dam safety plans.

