











DOI-ITAP

United States Department of the Interior Water Resources Management

The United States (U.S.) Department of the Interior (DOI) helps to address critical global water challenges by sharing its full array of water management expertise. Within the United States, DOI takes a data-driven, integrated approach to management of watersheds, trans-boundary waterways, and water quality and quantity. Much of DOI's experience comes from arid climates where finding solutions to water scarcity is a top priority.

Examples of DOI Water Management Expertise

- Water Data: DOI's National Water Information System collects and analyzes data from approximately 1.5 million surface and groundwater sites across all 50 states and develops tools and techniques for monitoring water quality and water use.
- Dam Management: DOI has constructed and manages more than 600 dams and reservoirs including those that provide hydroelectric power, such as Hoover Dam on the Colorado River and Grand Coulee on the Columbia River.
- Water Wholesaler: DOI is the largest
 wholesaler of water in the U.S. DOI brings water to more than
 31 million people and provides one out of five western U.S.
 farmers (140,000) with irrigation water for 10 million acres of farmland.



Hoover Dam, managed by DOI.

- **Hydroelectric Power:** Through its 53 hydroelectric plants, DOI is the nation's second largest producer of hydroelectric power, annually generating more than 40 billion kilowatt hours of electricity, enough to serve 3.5 million homes, and producing nearly a billion dollars in revenues.
- **Watershed Management:** DOI engages in state-of-the-art watershed planning, management, and research.
- Water Conflicts: DOI helps communities improve conservation and increase water availability, restore watersheds and resolve longstanding water conflicts.

DOI-ITAP and Water Resources Management – Examples of Technical Support

The U.S. DOI International Technical Assistance Program (DOI-ITAP) helps to build capacity in other countries by drawing from the diverse expertise of DOI employees. Examples of how DOI-ITAP has helped to strengthen water management capacities with host country governments are listed below.

- Transboundary Water Management in Africa:
 Worked with multiple nations within the Nile
 Basin on best practices in transboundary water
 management, including cooperation on water
 use, hydroelectric power sharing, public-private
 partnerships, construction of dams and power
 plants, and irrigation systems.
- Groundwater Analysis in Cape Verde: Evaluated historical and current groundwater conditions to help design, train and equip groundwater monitoring networks.
- Watershed Service Valuation in Ecuador:
 Trained on protocols used to determine the value of watershed resources, and to monitor water quality and water pollution in Ecuador's highlands.



DOI technical expert demonstrates the operation of the hand-held flow meter during a Basic Hydrology and Measurements Training, Lao PDR, January 11, 2018

- **Glacial Monitoring in Chile:** Installed and trained on the use of glacier monitoring systems to integrate glacier status into water management policies.
- **Dam Safety in Laos**: Trained to improve dam design and operation by recommending proper flood control and dam safety measures to safeguard the health and safety of downstream communities.
- **Sustainable Fisheries in Vietnam**: Trained to improve the environmental sustainability of aquaculture and capture fisheries activities.



DOI technical expert demonstrates how to measure discharge with an acoustic Doppler current profiler. Luang Prabang, Lao PDR, January 11, 2018

- Human Impact on Cambodia's Watersheds: Raised awareness of watershed values and the effects of human actions on water quality, river morphology, bank erosion, and fish and wildlife habitat.
- Navigational Dredging in Cambodia: Trained to apply international standards for navigational dredging along the Mekong River, and trained on hydrology, fluvial geomorphology, geology, sediment transfer, and water resources policy development.
- Monitoring Hydrology Systems in Indonesia:
 Trained on the design of hydrology monitoring networks, including the installation and maintenance of monitoring equipment and strategies for collecting and analyzing hydrologic data.

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DOI International Technical Assistance Program

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