



Smart Infrastructure for the Mekong (SIM)

In partnership with USAID Regional Development Mission Asia (USAID/RDMA) under the Department of State's Lower Mekong Initiative (LMI), the Smart Infrastructure for the Mekong (SIM) program is a demand driven, government-to-government technical assistance program initiated by requests from the governments of the 5 LMI countries: Vietnam, Cambodia, Thailand, Laos PDR, and Burma. SIM projects utilize the science and engineering expertise of U.S. Department of the Interior (DOI) to help countries along the Mekong safeguard the environment from the effects of hydropower dams and other infrastructure development on downstream communities. SIM strives to accomplish these objectives by:

- Strengthening environmental safeguards on hydropower
- Promoting sustainable infrastructure development
- Assessing the effects of development on riparian ecology
- Improving technical capacity of policymakers/academics
- Developing/restructuring environmental policy



Map of major planned hydropower dams in Lower Mekong Region. Credit: Stimson Center.

Projects under SIM

- **Laos PDR:**
 - Dam Safety and Dam Sediment Management
 - Dam Sediment Flushing
 - Mekong River Fish Biology Information Gap Analysis and Capacity Building / Technical Support for Interagency Fish Passage Monitoring Guidelines
 - Hydrology Data Assessment
 - Water Resource Management
- **Cambodia:**
 - Building Public Awareness and Professional Capacity in Response to Increasing Private, Commercial, and Industrial Impacts on Cambodia's watersheds
 - Development of Technical Guidelines for Navigational Channel Management in Cambodia
 - Technical Assistance to Development an Environmental Code and Implementation
- **Thailand (Regional):**
 - Sustainable Hydropower in Lower Mekong Countries: Technical Assessment, Exchanges, and Policy Workshops
- **Vietnam:**
 - Technical Assistance to the Mekong Delta Study
 - Institutional Strengthening for Climate-Smart - Structurally Sound Reservoir and Dam Management/Safety
 - Sustainable Fisheries Development in the Context of Climate Change
- **Regional:**
 - Lower Mekong Fish Passage Restoration Initiative Planning and Training Workshops

Selected Accomplishments

Highlights of the Smart Infrastructure for the Mekong program include:

Mekong Delta Study: Strengthened Vietnam's landmark Mekong Delta Study on the impact of hydropower through 900 pages of peer review by a 7-person multi-disciplinary expert panel, and 10 person-months of in-residence science advisor support to the Ministry of Natural Resources and Environment.

Cambodia Environmental Code: Fielded eight environmental law and policy experts who provided hundreds of pages of draft legislative text in support of Cambodia's environmental code reform.

Hydropower Assessments in Laos: Developed 60-page prioritized fish biology research agenda and capacity-building recommendations to address the challenge of hydropower development on the Mekong, included recommendations that improved fish passage at the Xayaburi Dam.

Laotian Fish Biology Internship: Hosted two Laotian fish biologists for 3-month training internship at Fish and Wildlife Service (FWS) and U.S. Geological Survey (USGS) field sites in Washington State and Gainesville, FL.

River Sedimentation Assessments: Developed technical review guidelines for sediment management for Laos Ministry of Energy and Mines and conducted assessment of Mekong River bank erosion in Cambodia.

Vietnam Sustainable Fisheries: Conducted seven workshops on diverse aspects of sustainable fisheries in seven provinces in Vietnam, including two seminars at Nha Trang and Can Tho Universities. More than 300 officials, of these 139 were women, from Vietnam Ministry of Agriculture and Rural Development (MARD), Institute of Fisheries Economics and Planning (VIFEP) and its provincial counterpart agencies participated. Eight Vietnamese development projects have already been influenced by tools and information provided.



Xayaburi Dam, Lao PDR. The Mekong's first main stem hydropower dam to be completed in 2019. Credit: DOI- ITAP.

Government and Nongovernment Partners under the SIM program:

- Vietnam Ministry of Natural Resources and Environment
- Vietnam Ministry of Agriculture and Rural Development
- Laos PDR Ministry of Energy and Mines
- Laos PDR Ministry of Agriculture and Forestry
- Thailand Ministry of Energy
- Electricity Generating Authority of Thailand
- Cambodia Ministry of Public Works and Transport
- Cambodia Ministry of Environment
- Vishnu Law Group
- United Nations Development Programme



River bank erosion on the Mekong. Credit: DOI- ITAP.

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