



U.S. DEPARTMENT
OF THE INTERIOR
INTERNATIONAL TECHNICAL
ASSISTANCE PROGRAM



DOI-ITAP

Sharing & Learning

Interview with Michael Roy Senior Technical Advisor to Smart Infrastructure for the Mekong

Smart Infrastructure for the Mekong (SIM)

Lower Mekong Basin: 2013 - 2021



REGIONAL CONTEXT: Spanning the five countries in the Lower Mekong Region, the Mekong River is home to over 800 species of fish that serve as the primary source of protein for more than 60 million people. With financial support from China and Singapore, the region plans to construct up to nine hydropower dams along its portion of the river. These dams could harm fish migration patterns and reduce annual fisheries catches. As a result, Lower Mekong governments are under increasing pressure to implement environmental and social safeguards for hydropower development.

DOI-ITAP ASSIGNMENT: Michael Roy initially served as the Senior Technical Advisor for the SIM program, beginning with a three-month program development assignment with USAID Regional Development Mission Asia in Bangkok in 2013, and continued as the U.S.-based advisor until mid-2021. He spent approximately 25 percent of his time in the Lower Mekong Basin, supporting ITAP teams across Cambodia, Lao PDR, Thailand, and Vietnam.

**What was your role
in the Smart
Infrastructure for
the Mekong (SIM)
Program?**

As the Senior Technical Advisor for the SIM program, I worked closely with host governments to refine their technical assistance requests into viable projects to mitigate the impacts of large infrastructure. I then worked with DOI-ITAP staff to select expert teams and accompanied them on missions to the Mekong. Most of our projects were in the water resources/fisheries sectors, however, I have always been a natural resource generalist. I've worked in advocacy, restoring wolves to Yellowstone, in protected area management and law enforcement in Alaska, in wildlife survey as a Fish and Wildlife Service pilot in Alaska, and in a range of program management roles-habitat restoration, endangered species recovery. My diverse background contributed to my success in this role with DOI-ITAP.

**Why was this work
important to you?**

The lower Mekong nations have experienced rapid economic growth over the last two decades, coupled with extreme environmental degradation. Economic pressures, social inequality, and poor rule of law exacerbate the issue. Yet, agency technical staff are committed environmental stewards. DOI-ITAP support enhances their technical expertise and ability to respond to ongoing challenges. My hope is that the Mekong region, one of the planet's biodiversity hotspots, has reached its nadir of environmental degradation and that individuals, communities, and governments, will unify in the coming decades to restore their lands, waters, and species.

What was the most rewarding part of participating in the SIM Program?

While the diverse conservation support that DOI-ITAP provided to the Mekong region was interesting and challenging, our work to build regional understanding and capacity to restore fragmented aquatic habitats through watershed-scale fish passage barrier evaluation and prioritization, fishway design and construction, and post-construction monitoring stands out. Most agencies were starting from both limited understanding and capacity. Our work was the first step in establishing a restoration framework. It is often difficult to measure conservation results; witnessing the return of millions of fish, encompassing hundreds of species, to previously inaccessible waters was a unique and rewarding exception.

How did the DOI-ITAP experience impact you, both personally and professionally?

My DOI-ITAP experience was in many ways the high point of a 25-year career in federal service (even considering a 10-year stint in Alaska!). In addition to satisfying a decades-long desire to do conservation work in Asia, the experience prepared me for my current position with World Wildlife Fund Thailand, where I am working on tiger and elephant conservation.

What would you tell someone considering a DOI-ITAP assignment?

As federal employees, we strive to serve the public and their natural resources. Work often goes unrecognized or even criticized. Conversely, efforts to provide technical assistance to underfunded and greatly underappreciated natural resource ministries in the developing world receive immediate appreciation from dedicated staff, establish long-term friendships, and reminds us why we entered public service in the first place. And after an ITAP mission you may realize that you have “moved the (conservation) needle” more in a few weeks than you could have ever imagined!



Left Photo: Linear Infrastructure Workshop participants from the five Mekong nations at Southeast Asia’s largest wildlife crossing over a major highway at Khao Yai National Park, Thailand. (Photo Credit: DOI-ITAP)

Right Photo: A DOI-ITAP team at Tonle Sap, Southeast Asia’s largest and most productive lake. Taken during a mission in support of the Vietnam Ministry of Natural Resources’ Mekong Delta Study, the first comprehensive assessment of the impacts of hydropower development on the mainstream Mekong River. Top Photo: One of the first effective fishways in Cambodia, built on the Pursat River, a tributary of Tonle Sap Lake, in central Cambodia. (Photo Credit: DOI-ITAP)

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