

POLICY BRIEF

Outcomes of the Workshop

“Needs, Techniques, and Risk Assessment: Toward a Vision for Migratory Fish in Cambodia,”

17–18 October 2018



This workshop was hosted in Phnom Penh by the Inland Fisheries Research and Development Institute (IFReDI) and the University of Nevada-Reno, and was facilitated by FISHBIO as part of the Wonders of the Mekong Project funded by USAID. The workshop's goal was to bring together experts to identify high-priority data needs for fish migration in the Mekong Basin as well as tools to address these needs, develop elements of a shared vision for management and conservation of migratory fishes in Cambodia, and discuss management approaches and next steps to achieve this vision. The workshop was attended by 67 participants from about 26 organizations and agencies.

Priority Data Needs Identified for Migratory Fish

Priority Data Needs for Migratory Fishes at the Multi-Species Level

- Key habitats and spawning areas
- Important migration pathways
- Migration timing
- Species life cycles

Priority Data Needs for Migratory Fishes at the Species Level

- Life cycle and life history
- Spawning areas
- Environment and habitat requirements
- Migration routes and distances
- Population abundance and trends



Tools and Techniques That Can Address These Data Needs

- **Genetic sampling** can be used to assess population connectivity

- **Hydroacoustic sampling**, while expensive, can be used to document fish abundance, behavior, and habitat use
- **Local ecological knowledge** is the basis of much current understanding about migratory fishes
- **Long-term fish sampling** (both fisheries-dependent and fisheries-independent methods) provides opportunities to collect information related to data needs
- **Mark-recapture techniques** such as tags or telemetry can be used to document fish movement and habitat use
- **Otolith microchemistry** can reveal important information about life cycles and migration routes

Elements of a Vision for Migratory Fishes

- A balance between human and environmental (fish) needs
- Abundant fish to sustain people's livelihoods and food security
- Clean water and a clean environment
- Conservation actions, including increased awareness about sustainability and protecting habitat
- Coordination among multiple stakeholders
- Creating fish passage
- Healthy and abundant populations of migratory fish that can move freely
- Increased research providing data and knowledge to understand life cycles
- Maintain biodiversity
- Protecting migration routes in free-flowing rivers
- Strong governance, including enforcement to prevent illegal fishing and community involvement to manage fish populations

Priority Actions and Next Steps

- **Build trust and collaboration** between community members and managers to work together for enforcement and conservation
- **Conduct more research** to fill knowledge gaps, including improving stock assessments and protecting migration routes
- **Develop a master plan/action plan** for migratory fish management that identifies management priorities, priority research projects, capacity building, training, key species, management areas, and management scales, along with a clear mission, roles, and plan for stakeholder engagement
- **Identify a champion** to coordinate activities and keep the effort moving forward
- **Improve communication and coordination** among stakeholders
- **Improve law enforcement** of fisheries regulations such as through government reforms, more high-level involvement, increased patrolling budget, drones for patrolling, alternative income opportunities, and study tours
- **Increase community awareness and engagement** around fisheries sustainability so they feel a sense of ownership and can see how they are part of the solution
- **Integrate** with existing management strategies and projects, such as the master plans or the Sustainable Development Goals, and bring migratory fish into discussions around water management and development so their value can be accounted for
- **Keep** the Sekong-Mekong-Tonle Sap corridor **free-flowing**
- **Secure funding** to make study and management of migratory fish a priority
- **Share data** among researchers, managers, community members, and government officials to improve coordination, avoid duplication of effort, and use existing data to inform research and management

The opinions and recommendations compiled in this brief are those of the workshop participants, and do not necessarily reflect consensus nor the opinions of the workshop organizers or Wonders of the Mekong project partners.