

Collaborative Research of Mekong River Fishes

John Beeman*

David Hewitt

Harmony Patricio Shaara Ainsley

Vu Ngoc Ut

Matthew Andersen

Craig Conzelmann

Sinsamout Ounboundisane

Doug Demko

Can Tho University

U.S. Geological Survey, USA

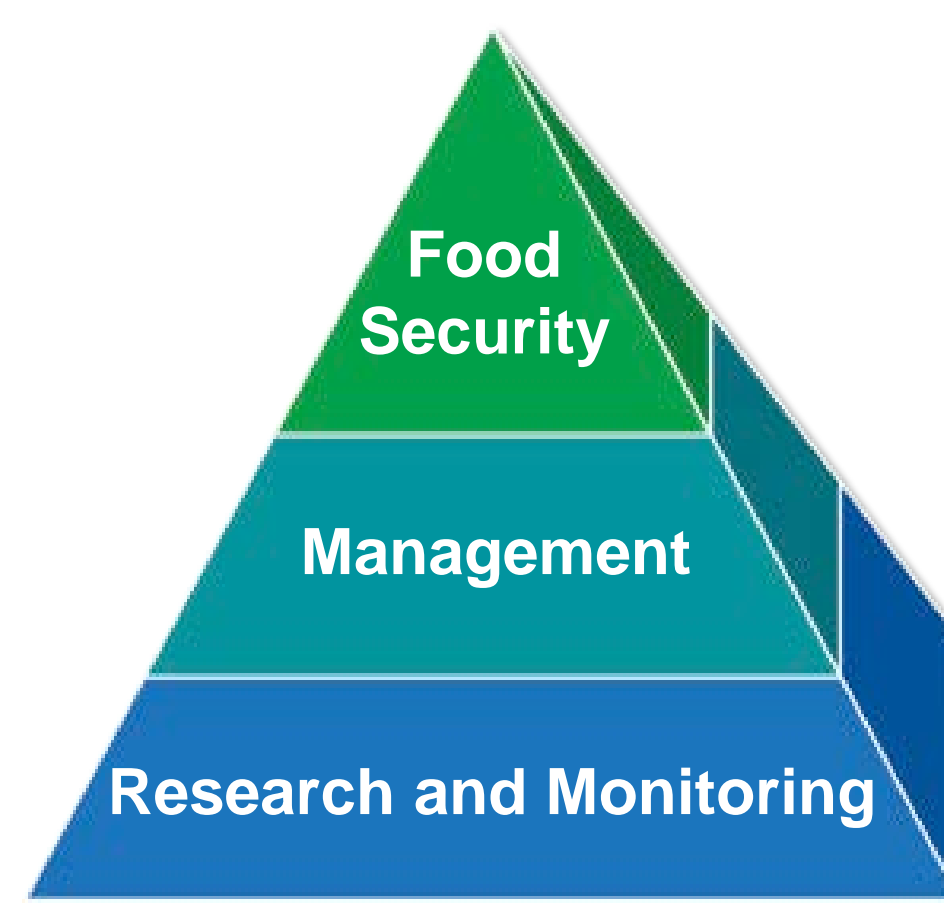
FISHBIO, USA

Viet Nam

* jbeeman@usgs.gov

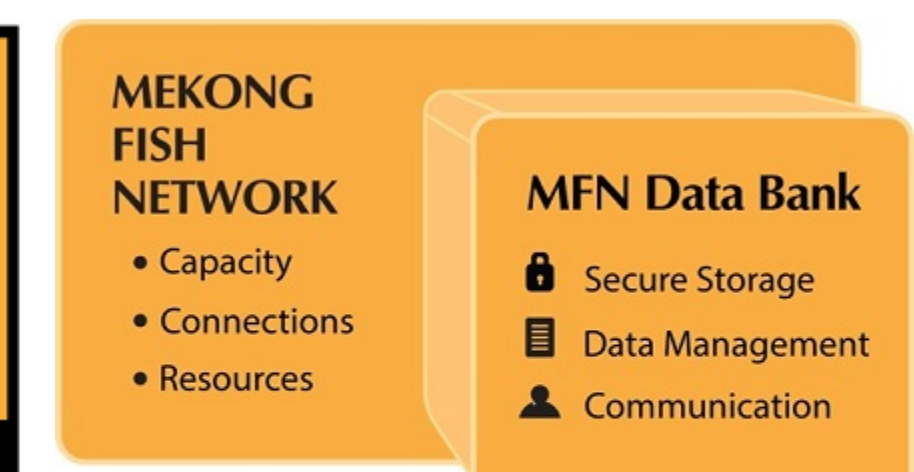
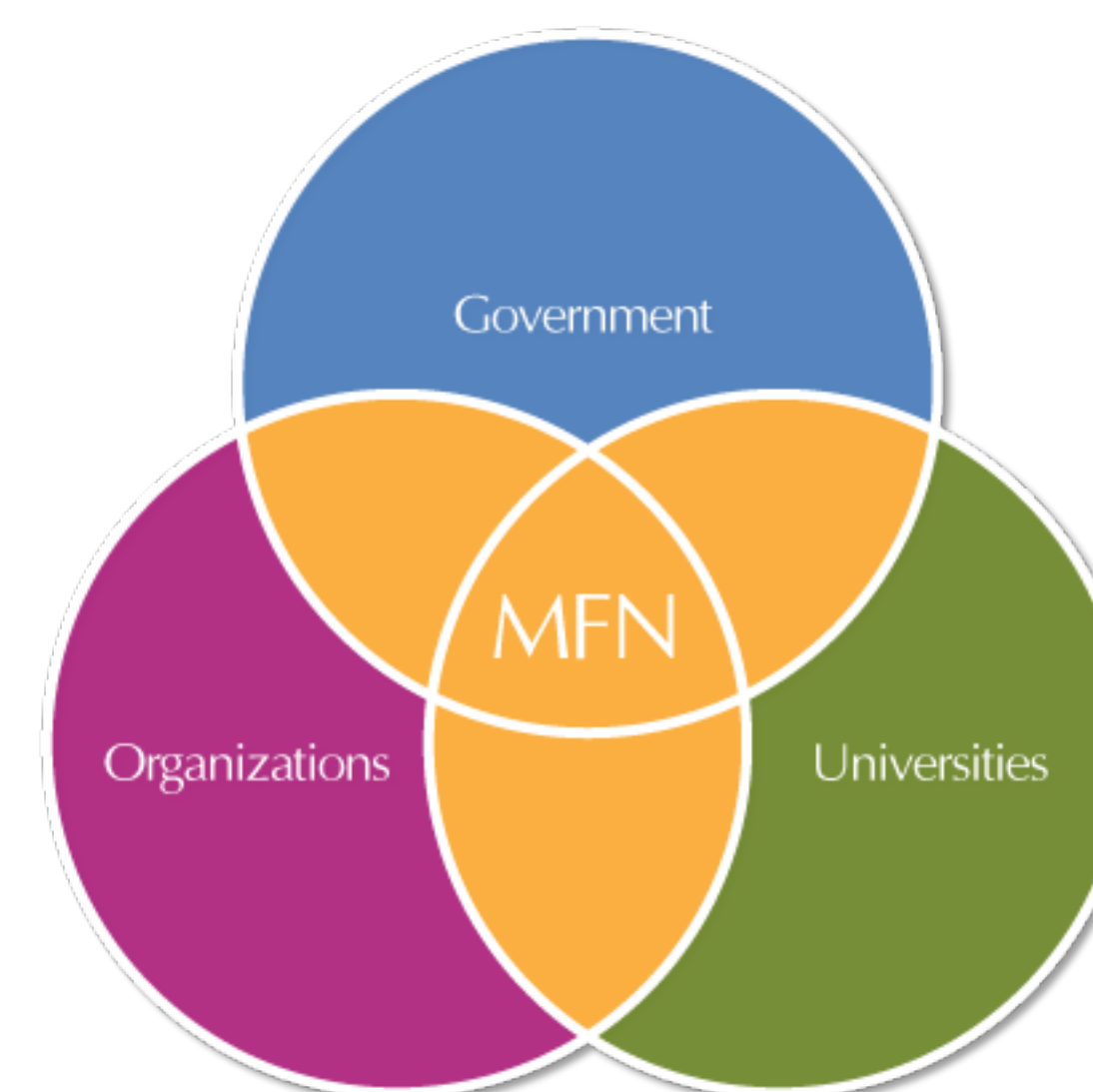
Background

- The Mekong River in Southeast Asia:
 - Shared resource for six riparian countries
 - Supports one of the world's most productive inland fisheries, providing food and income to > 60 million people
 - One of the world's most diverse freshwater fish assemblages, with more than 850 species
 - Many species (> 30%) make long distance, transboundary migrations
- Infrastructure development along the river and climate change are anticipated to have substantial effects on river hydrology and productivity
- Making informed decisions about the management of the river in the face of these changes will require considerable information about the fish resources



Mekong Fish Network & Data Bank

- Workshop held in Phnom Penh, Cambodia in 2012:
 - Explore potential for coordinated fisheries monitoring in the Lower Mekong River Basin
 - Consider standard sampling methods that could be implemented for short-term and long-term monitoring at a broad spatial scale
 - Discuss capacity needs for fisheries monitoring programs
- Mekong Fish Network** established to:
 - Facilitate sharing of ideas and information
 - Provide needed tools and capacity building
- MFN Data Bank** created to provide secure data storage and management tools



MEKONG FISH NETWORK

mekongfishnetwork.org

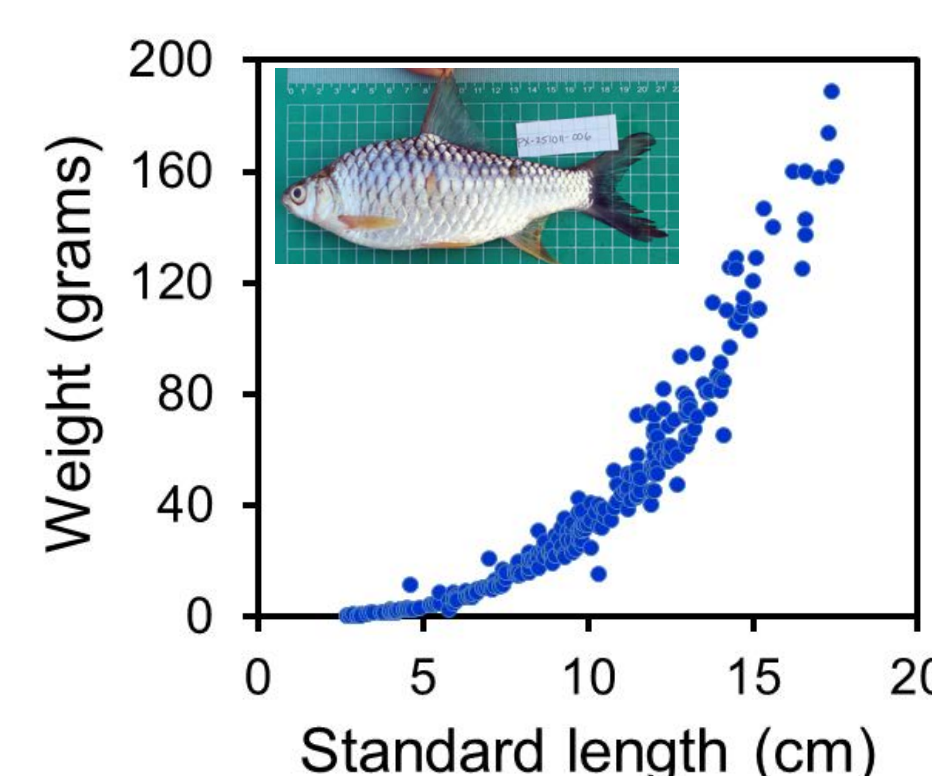
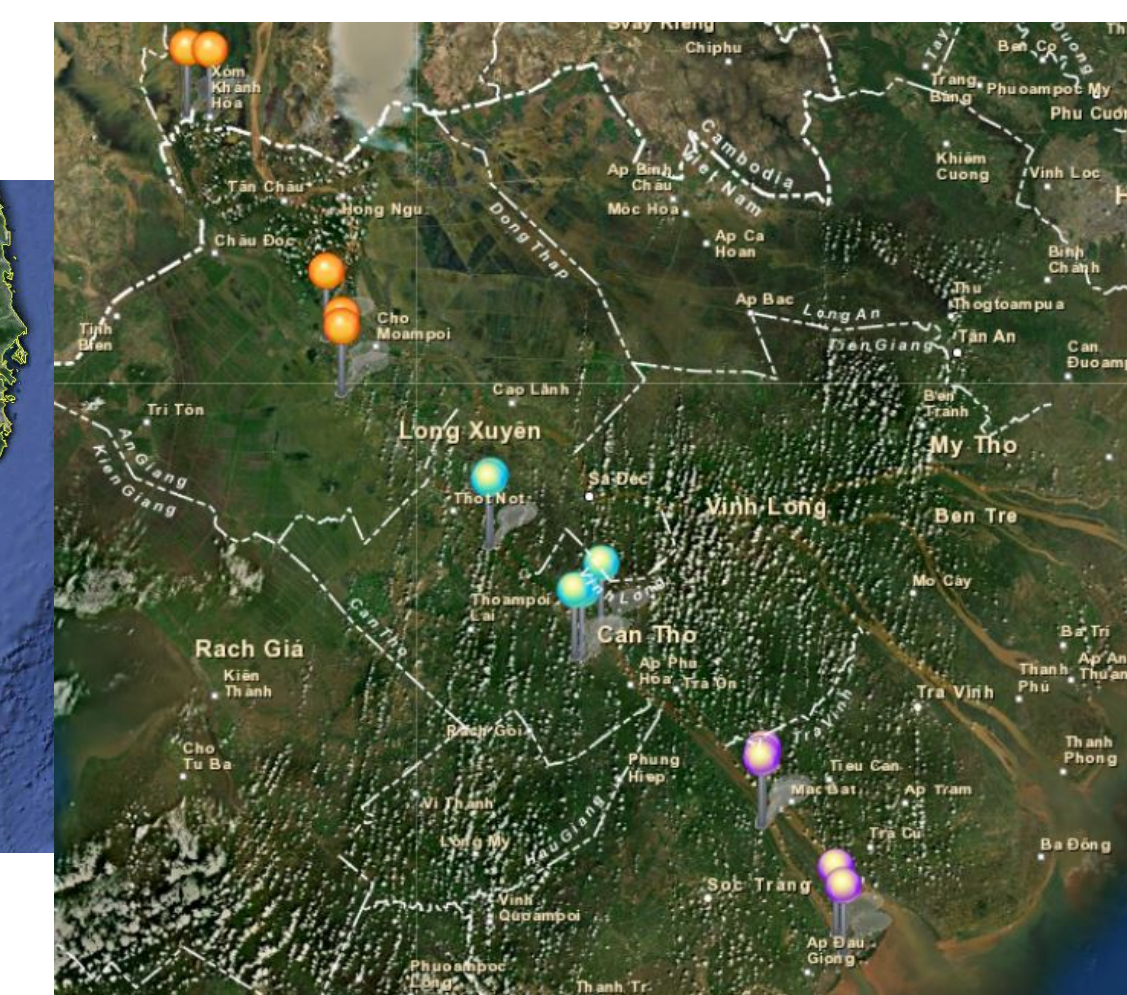
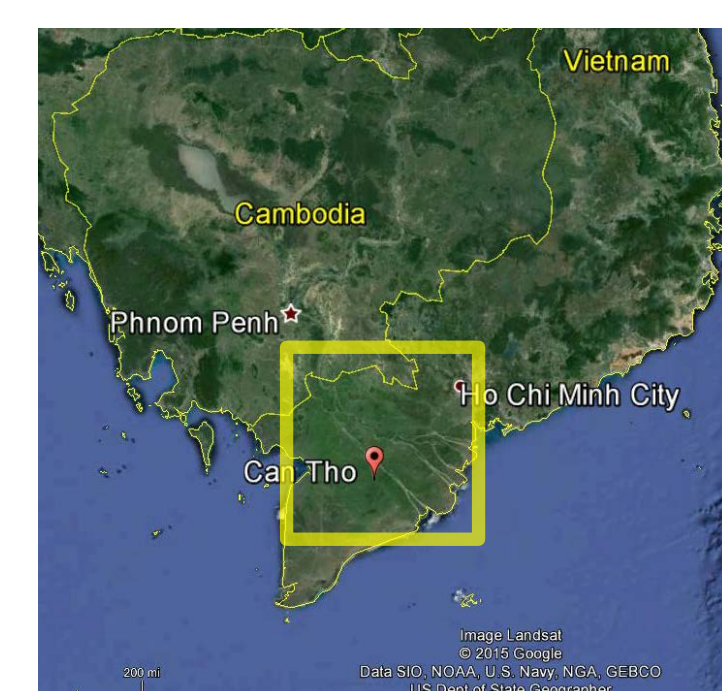


Pilot Project for Standard Sampling Methods

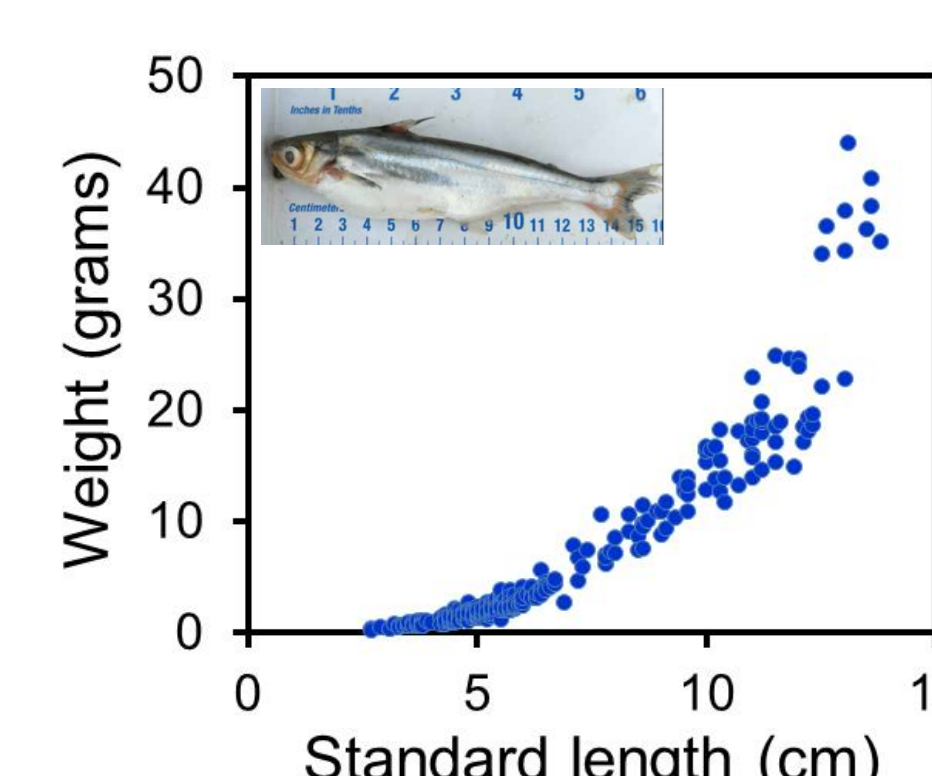
- Conducted in the Mekong Delta, Viet Nam, by Can Tho University
- Two gears with potential to be used widely in the Mekong River and its tributaries
 - Small trawl, mouth 3.5 m wide and 0.5 m tall
 - Anchored and drifting gill nets, 1-2 m deep, 2-10 cm stretch mesh, 2 hr soak
- Six sampling sites, 2 in each of 3 provinces, from border with Cambodia to the coast
 - Included mainstream locations and tributary locations at each site
- Year 1: July 2011 – June 2012, monthly sampling, trawl only
- Year 2: August 2012 – June 2013, bimonthly, trawl and gill nets

Results

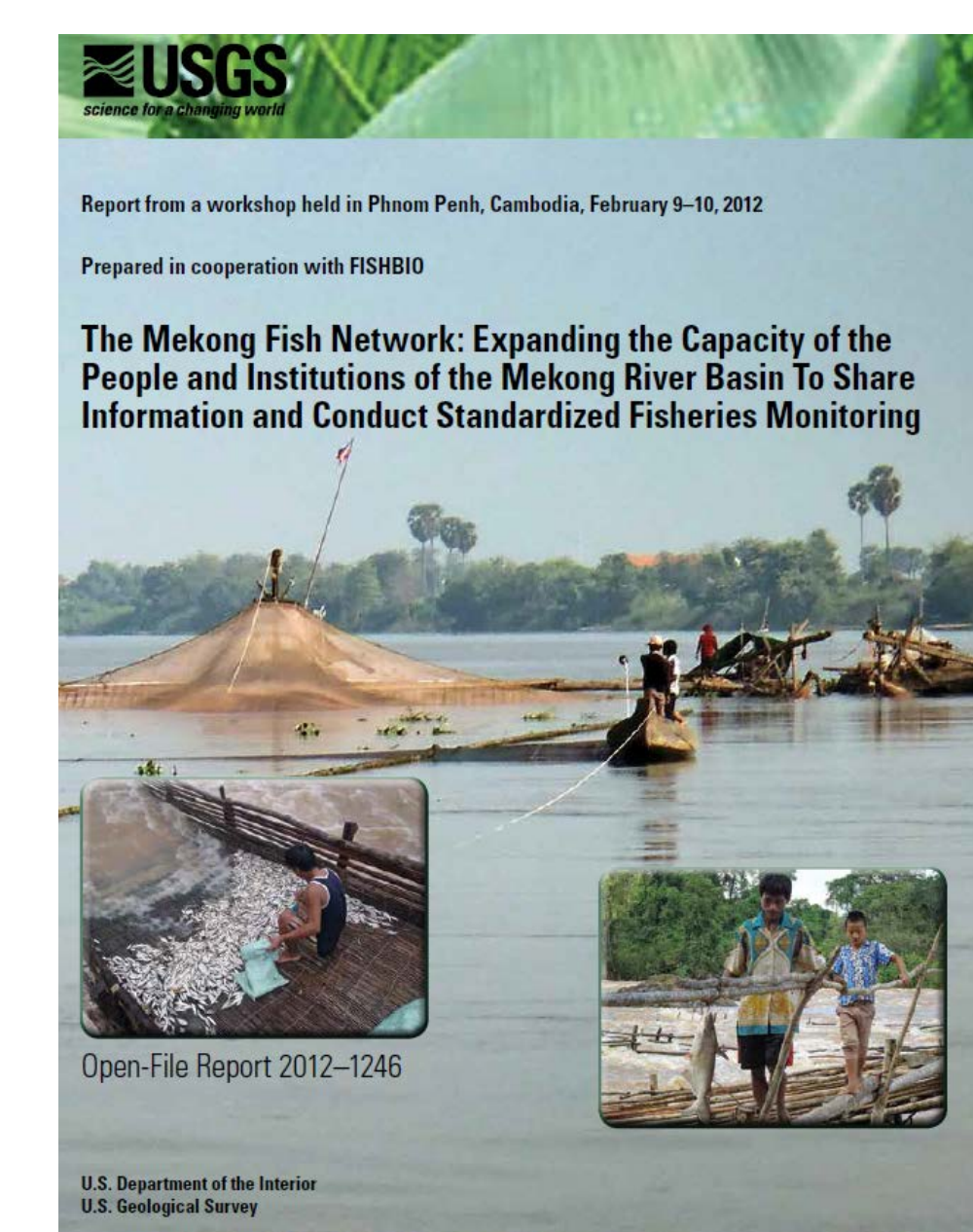
- More than 175 different species captured
 - Trawl samples included > 21,000 individuals:
 - 154 species, 64 not captured in gill nets
 - Average size = 6.76 cm standard length
 - Gill net samples included > 3,000 individuals:
 - 125 species, 34 not captured in trawl
 - Average size = 9.22 cm standard length
- Length-weight curves developed to reduce need for weight measurements in the future (streamline processing)



Barbonymus gonionotus (Silver barb)



Pangasius macronema



<http://pubs.usgs.gov/of/2012/1246/>

Acknowledgments

- Numerous students at Can Tho University assisted with sampling
- Funding provided in part by the U.S. State Department
- Photos courtesy of USGS and FISHBIO