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The importance of determining and maintaining migration corridors for the Hilsa Shad fishery in Myanmar Inland Rivers.

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The importance of determining and maintaining migration corridors for the Hilsa Shad fishery in Myanmar inland waters

John Conallin^{1*}, Lee Baumgartner, Zau Lunn, Maung Maung Lwin, Khin Maung Maw Nyunt Win, Kyi Wai, Mike Akester,

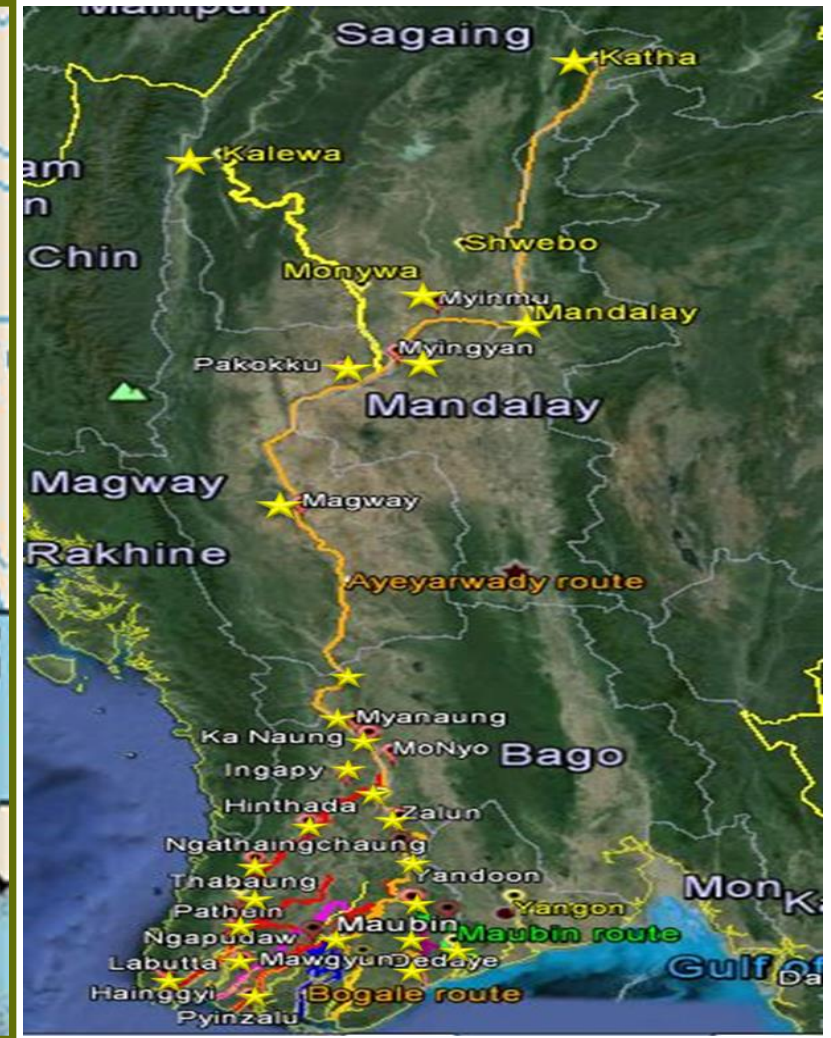
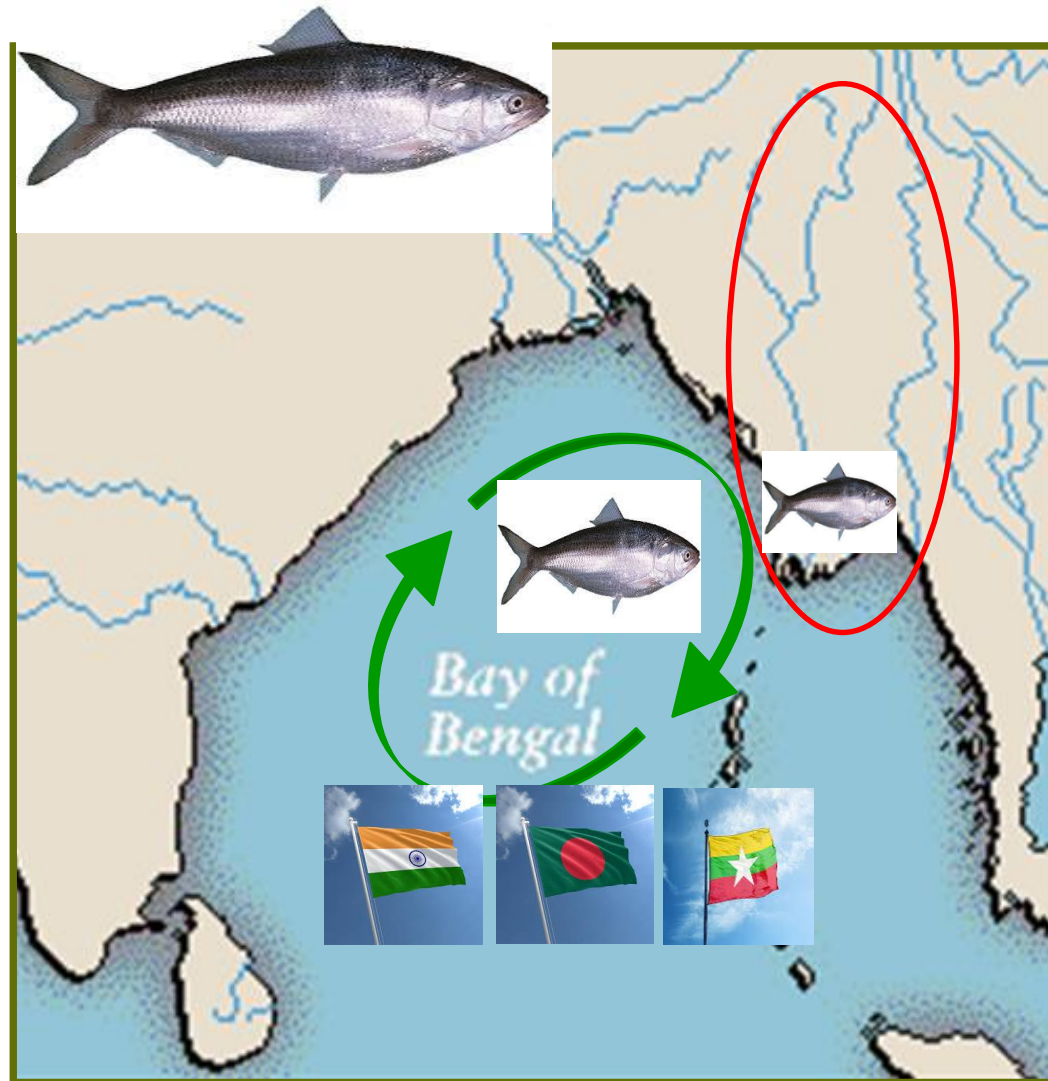
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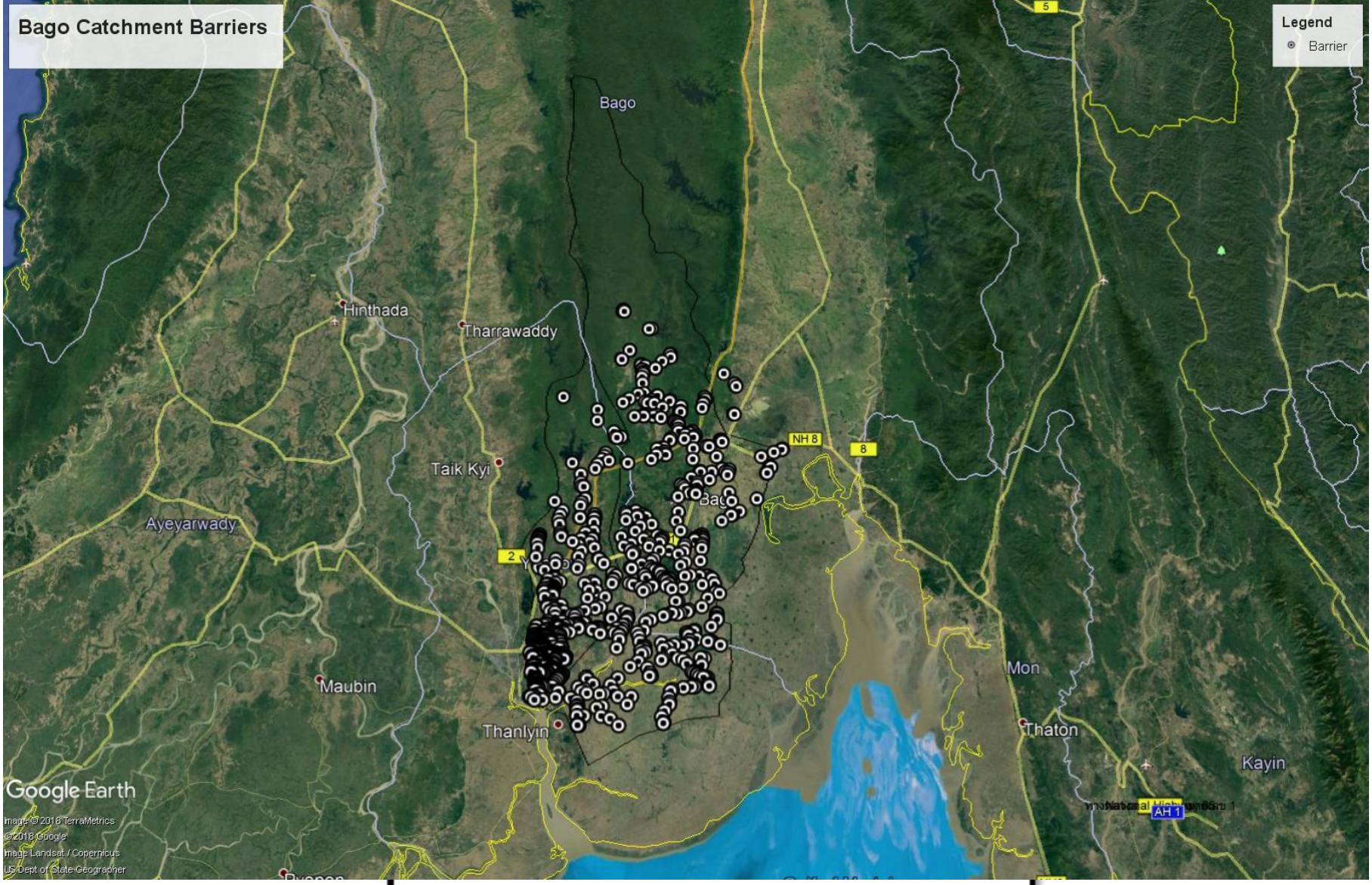
Inland Fisheries and Migratory Fish Importance development agenda

- Commercial, Subsistence and Biodiversity
- National Policies on Development, Myanmar 2030
- Sustainable Development Goals
 - Lynch AJ et al. (2017) Inland fisheries – Invisible but integral to the UN Sustainable Development Agenda for ending poverty by 2030 *Global Environmental Change* 47:167-173.
- Water Diplomacy and Conflict Tool
 - Fish swim past politically drawn boundaries
 - Mekong, Nile (Internationally), Ayeyarwady, Murray Darling (States)

Hilsa Shad (*Tenualosa ilisha*) (Nga-tha-lauk)



Migration Blockages



Myanmar example – Bago Catchment near Yangon – Tidal barrage/sluiice



Myanmar example - Yangon

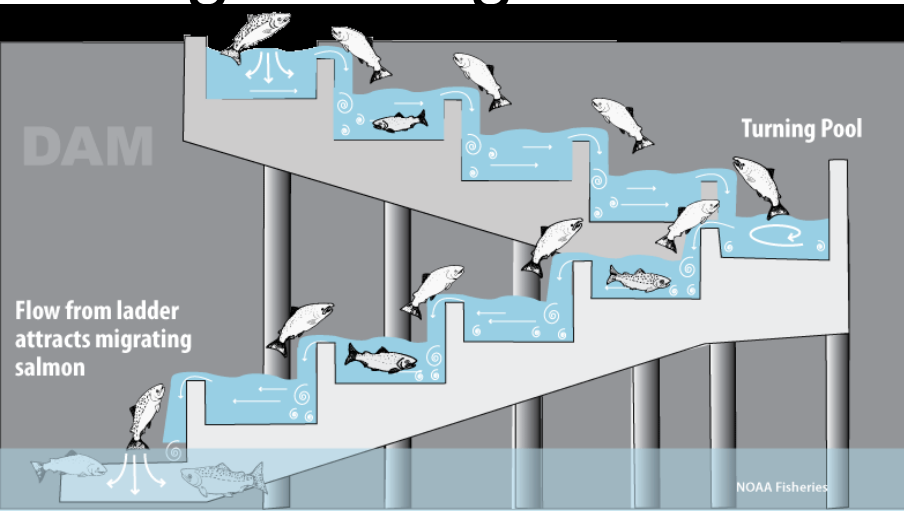
Examples: Irrigation Dept Structure in Yangon (Lower Catchment)



Google Earth

Image © 2018 DigitalGlobe
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Fish passage design critical- hang on ang on



Institutionalisation and Implementation Focus

- Understanding, Trust, Ownership the key
 - Capacity and initiative of incountry authorities
- CSU-ACIAR-DOI collaboration
 - Partnership driven, irrigation infrastructure focused
 - Partner, Train, Pilot, Implement, learn, adapt

Holistic Long-term National Approach



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Pragmatic Research Approaches

Capacity Building through Research Approaches

Quantifying biophysical and community impacts of improved fish passage in Lao PDR and Myanmar

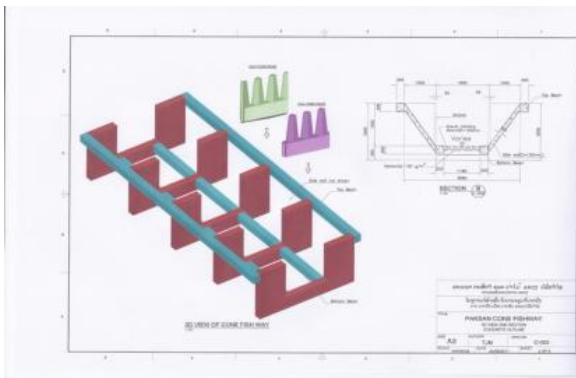
1. Identify barriers



2. Prioritise and inspect barriers



3. design process



4. construction process



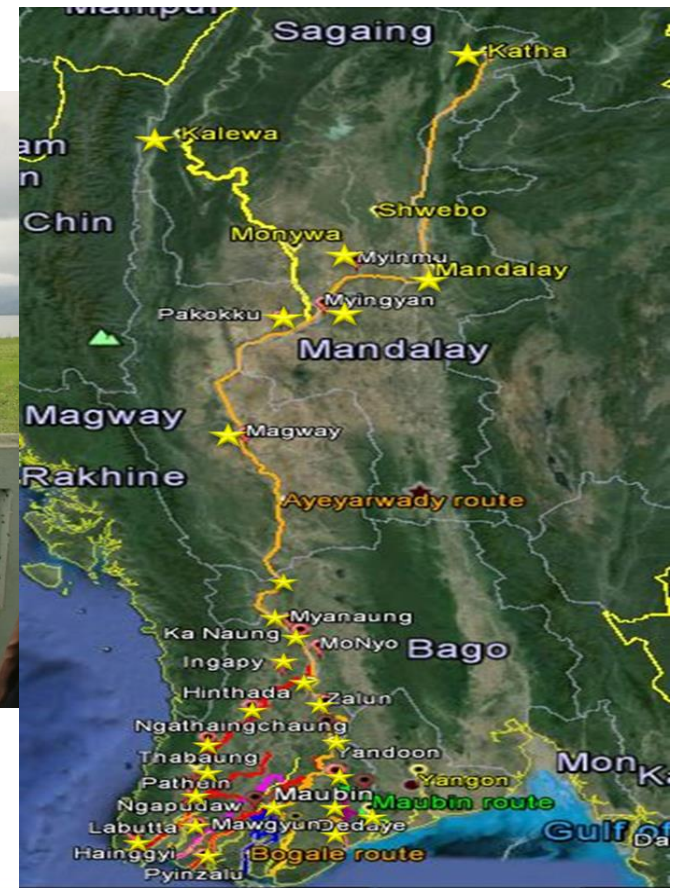
5. monitoring fisheries response

Pragmatic Research Approaches

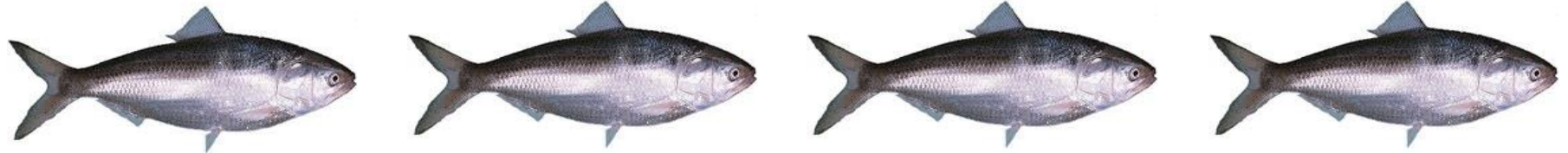
Delta Flows- Using otolith microchemistry to determine migration routes of key fish species in Ayeyarwady and Mekong



1. Awareness, Research and Training



Questions



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