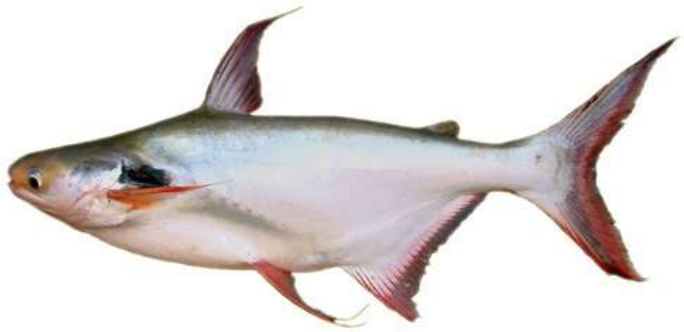
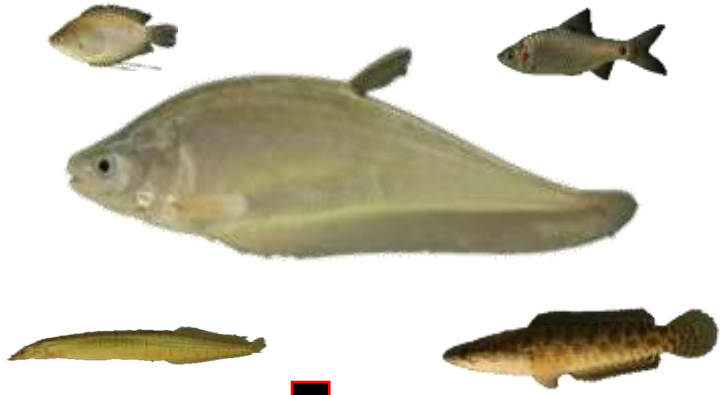
Migratory fish important part of fisheries management and ecology

Loss of connectivity in river basins – Various Sources

Myanmar Fish Barrier threats



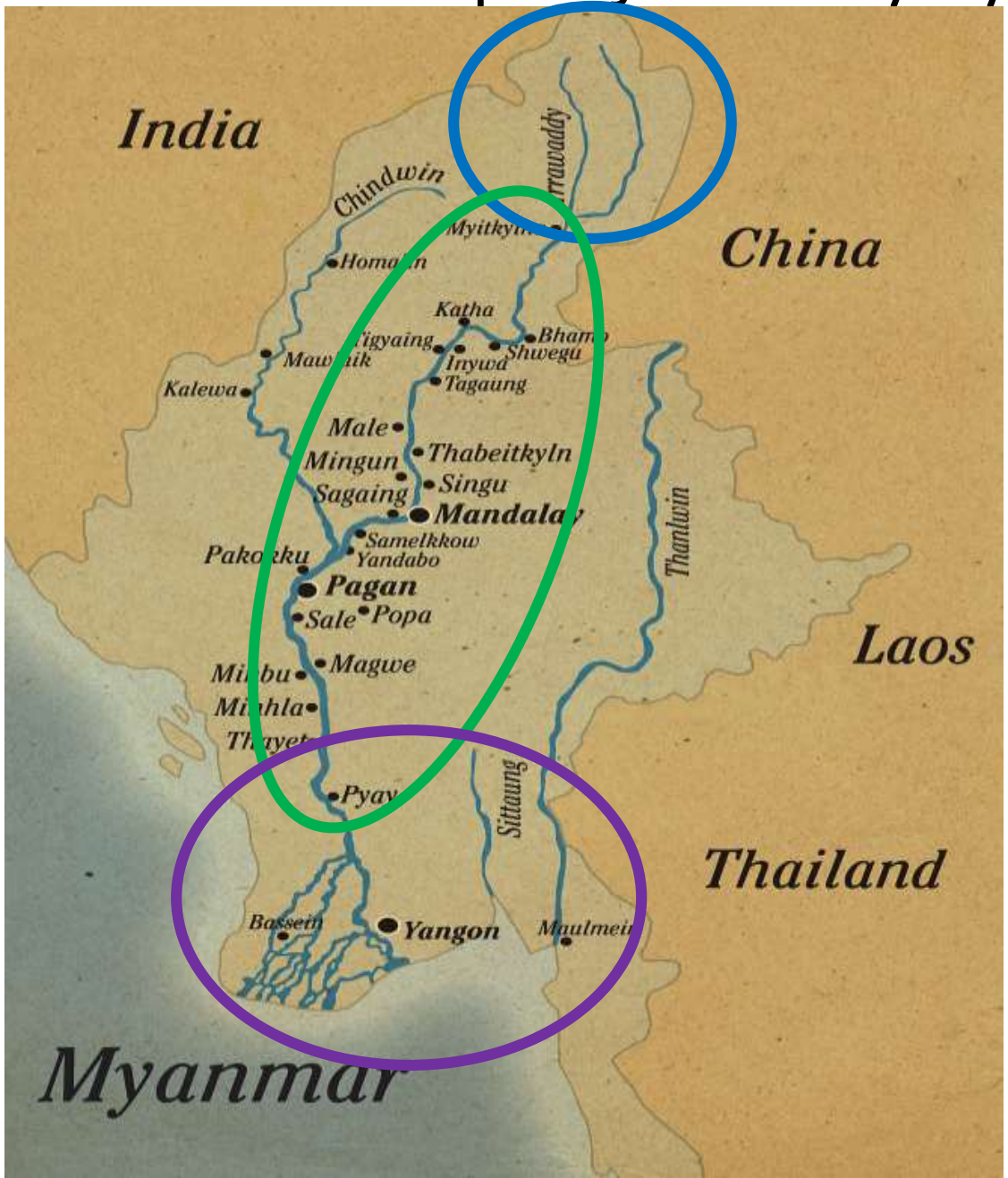


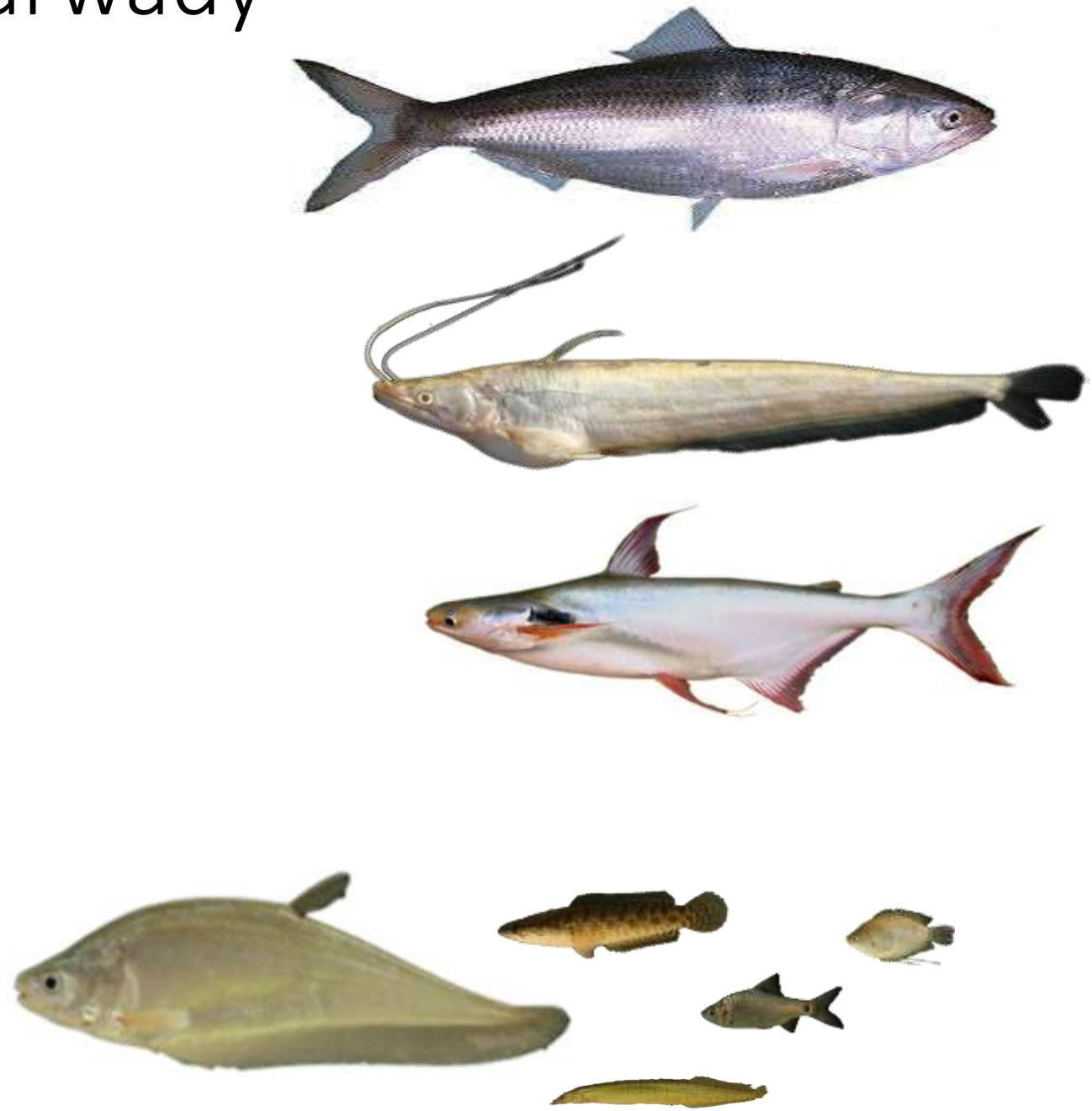
Main Stem and Tributary Dams

Sluices and Dams

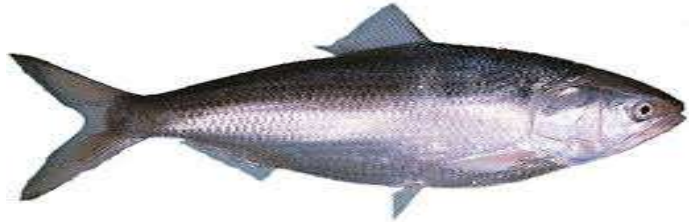
Irrigation Wetland Regulators

Delta flows project: Ayeyarwady





Delta flows project: Ayeyarwady



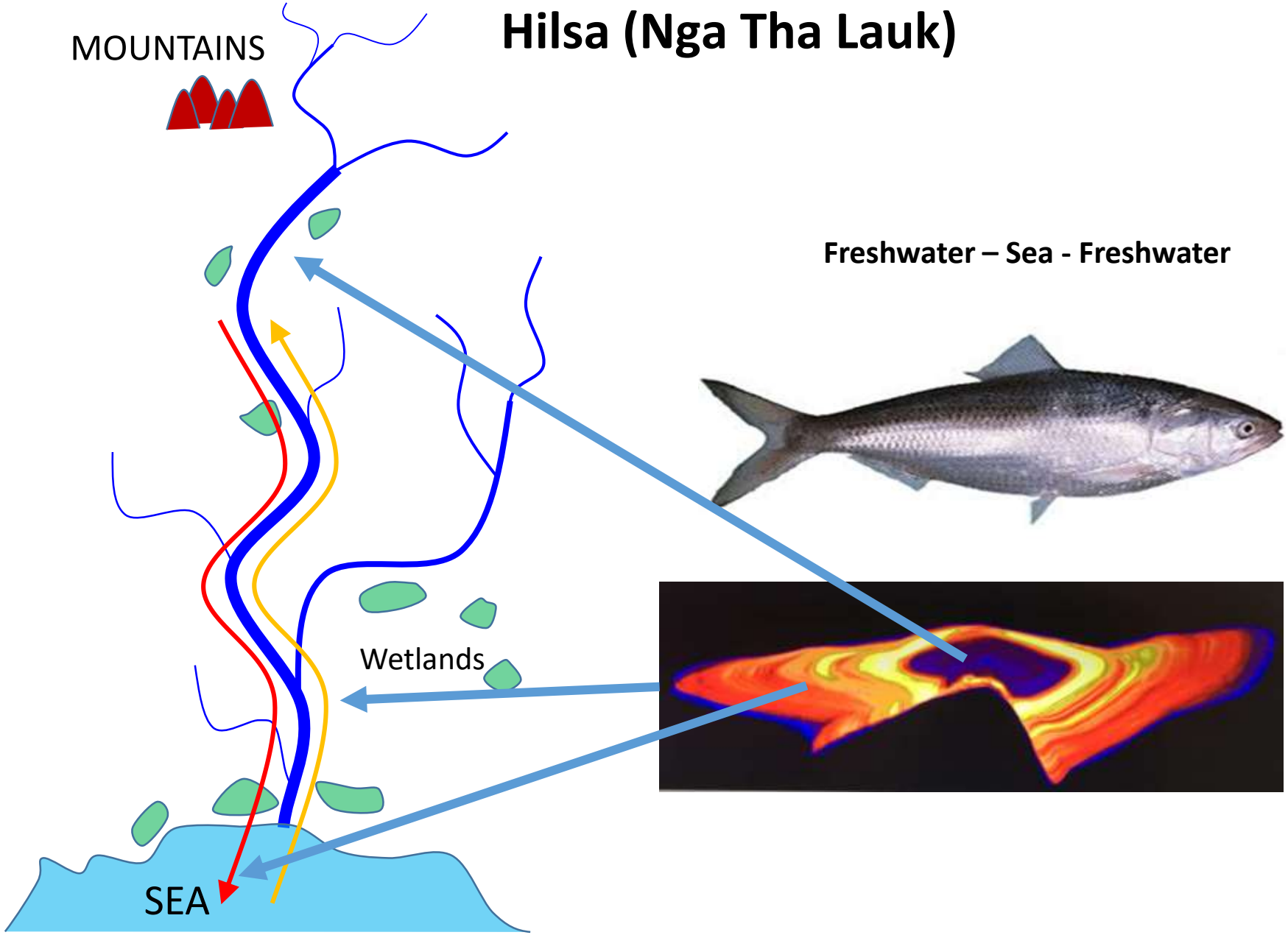
Freshwater: Rich in Barium

<u>If Barium high, time in freshwater</u>

Seawater: Rich in Strontium

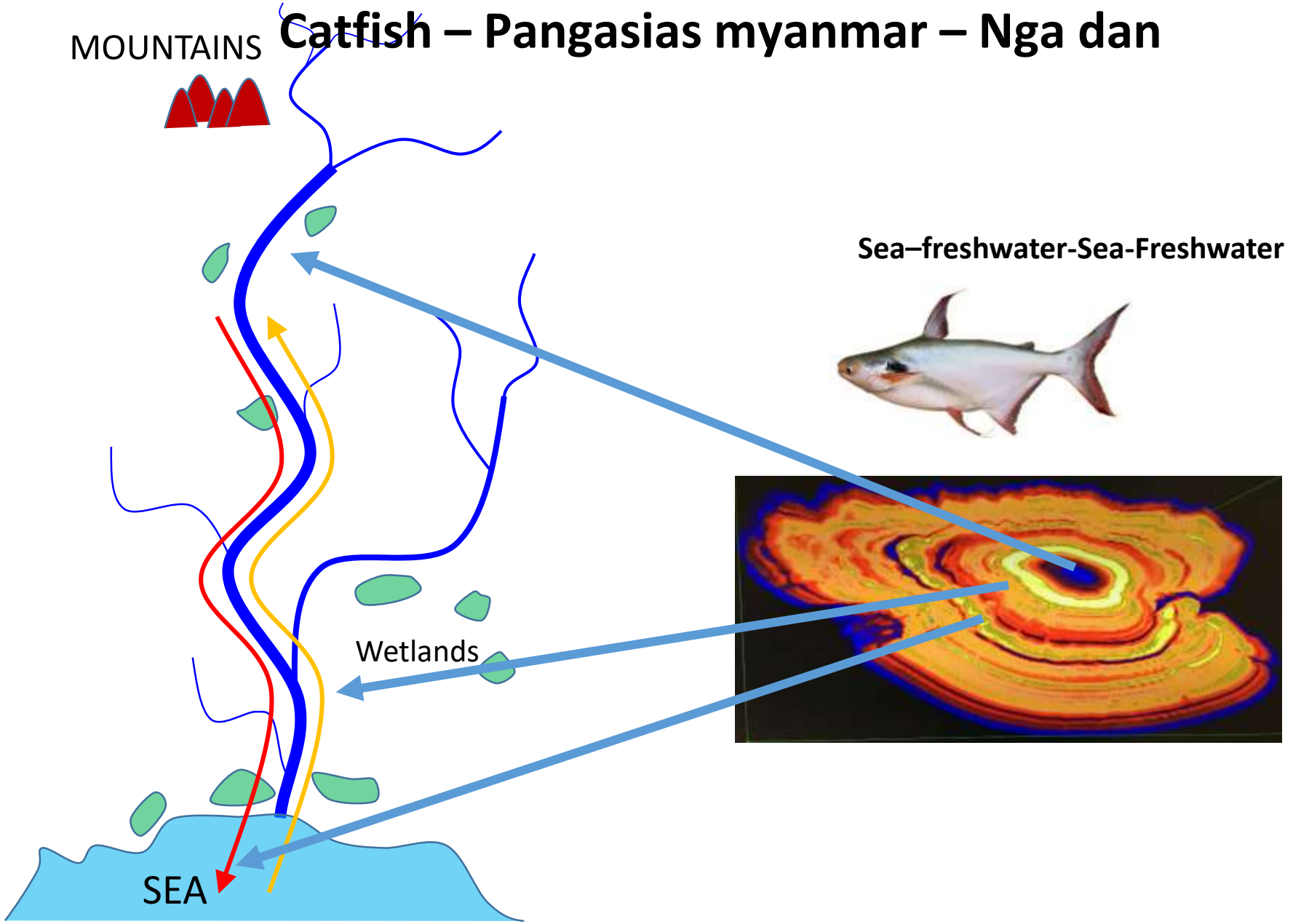
<u>If strontium is high, time spent in saltwater</u>

Hilsa (Nga Tha Lauk)



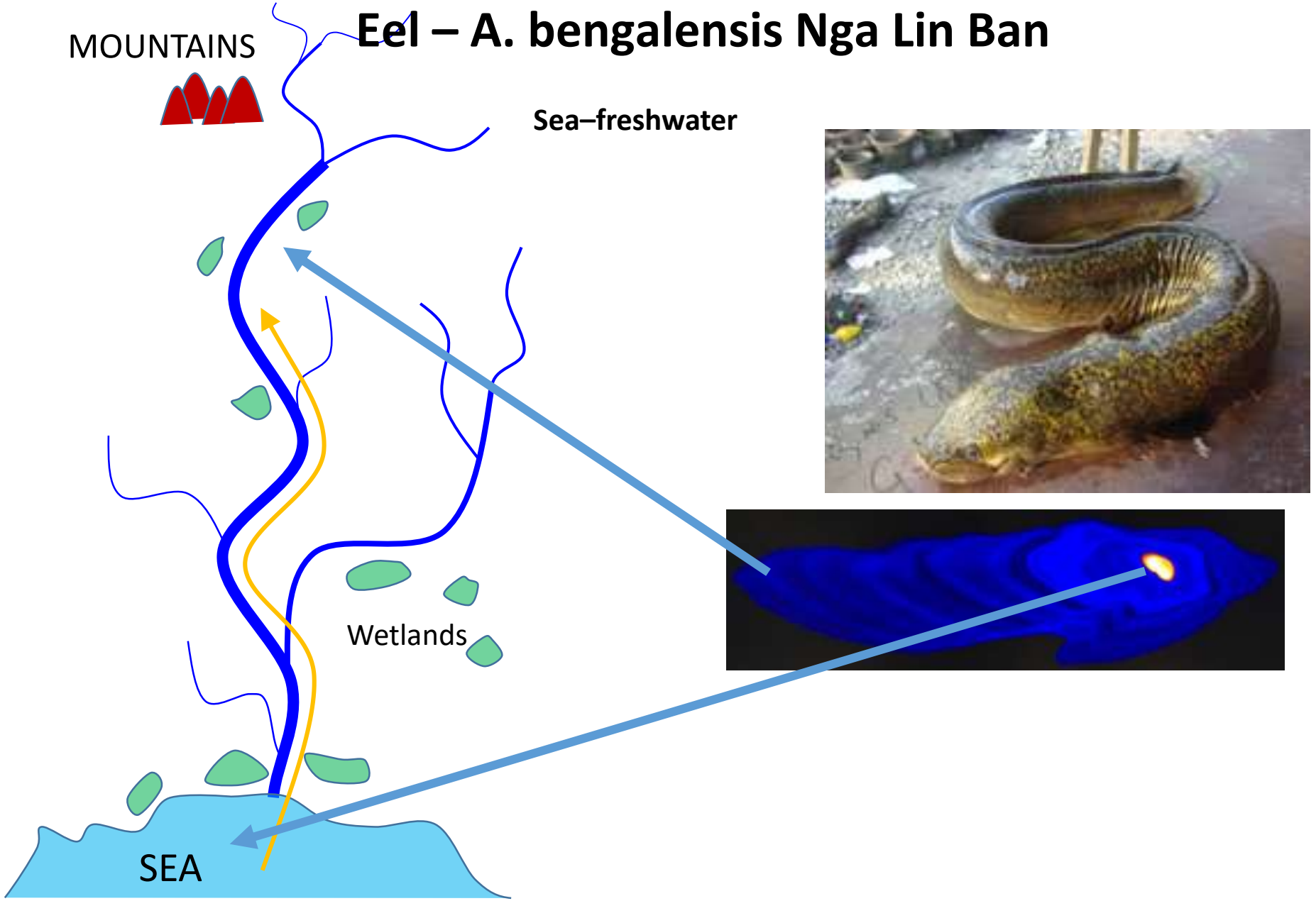
Freshwater – Sea - Freshwater

Catfish – Pangasias myanmar – Nga dan



Sea–freshwater-Sea-Freshwater

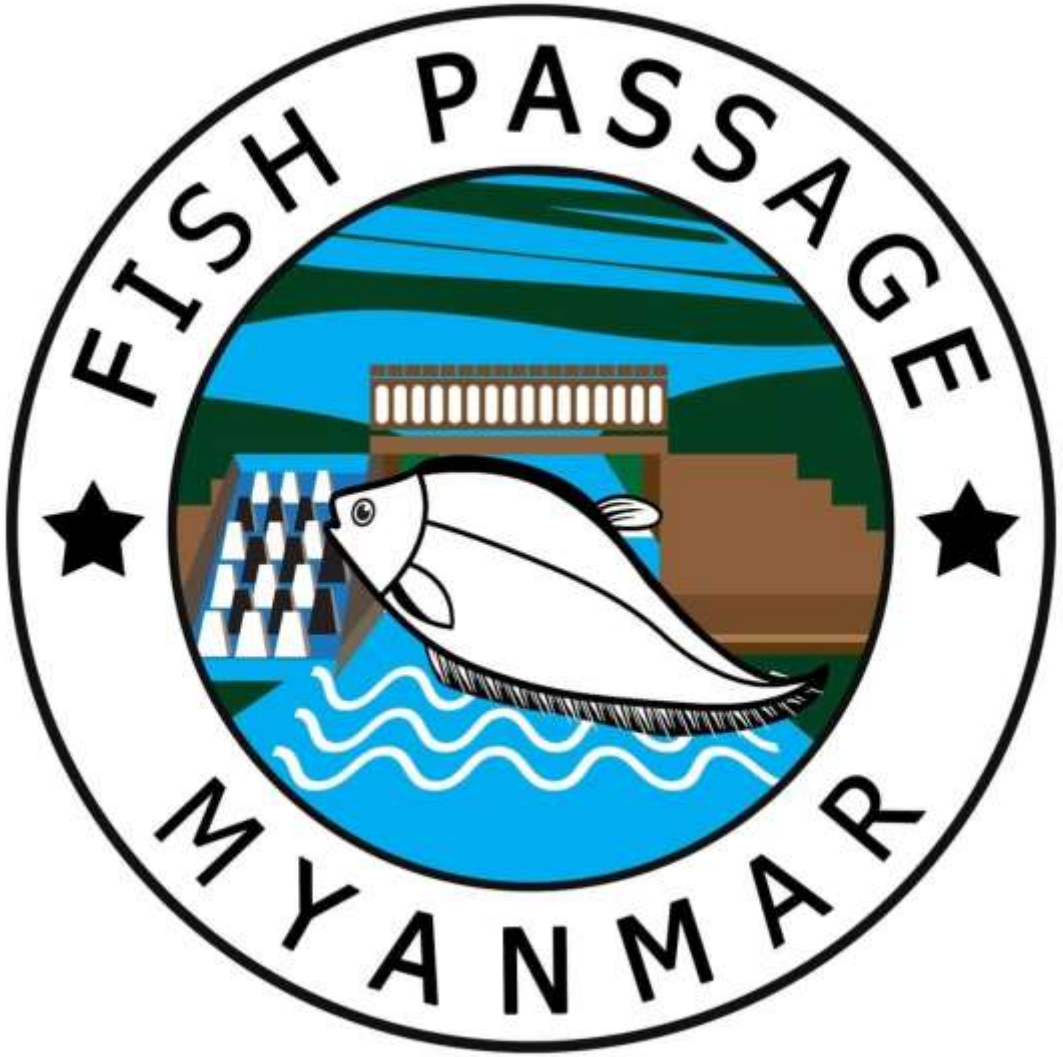
Eel – A. bengalensis Nga Lin Ban



Fish migration and fish passage are needed for maintaining productive fisheries and sustainable rice

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

Myanmar Fish Passage Team



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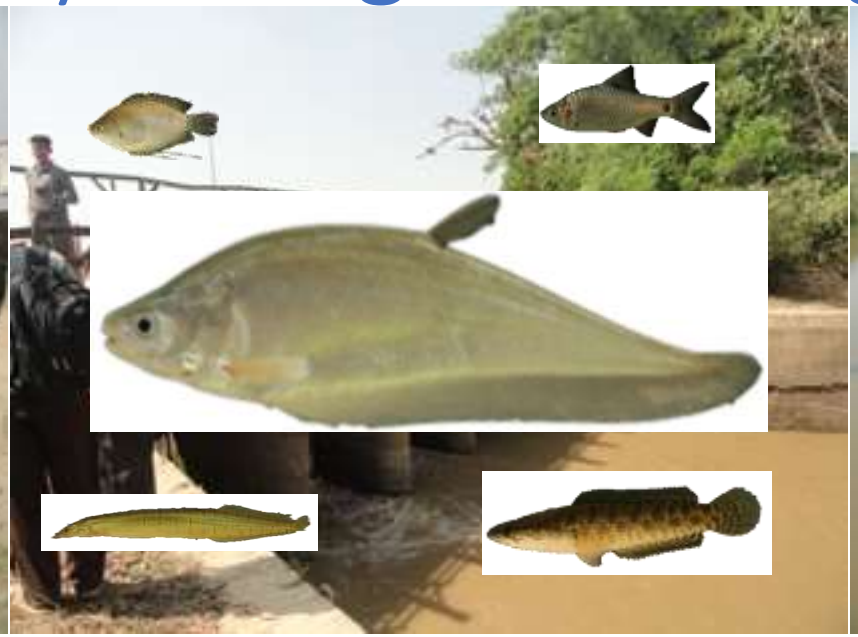
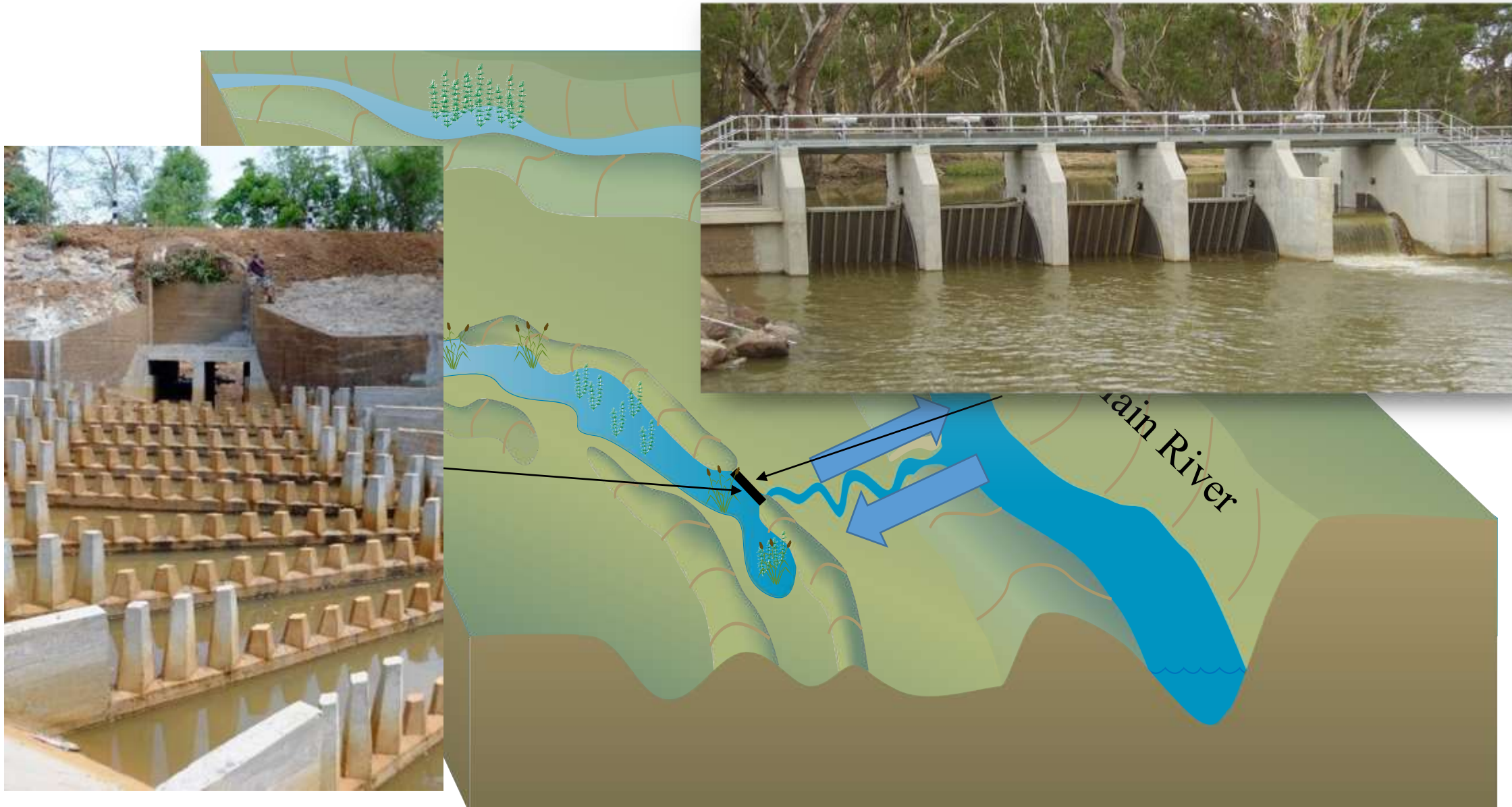
Loss of connectivity in Bago/Sittaung – Various Sources



How to use engineering to boost fisheries in agricultural landscapes



Fish passage design critical – locally adapted

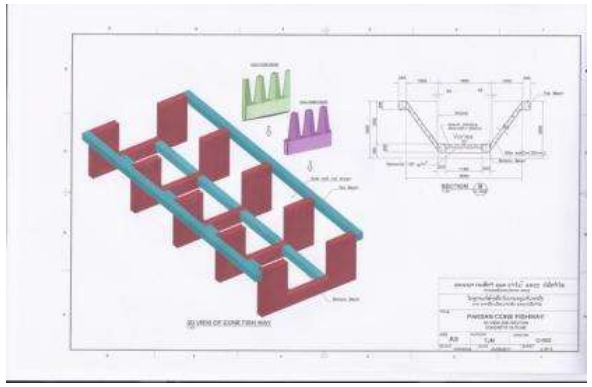
Partnership Approach

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

1. Identify barriers

2. Prioritise and inspect barriers

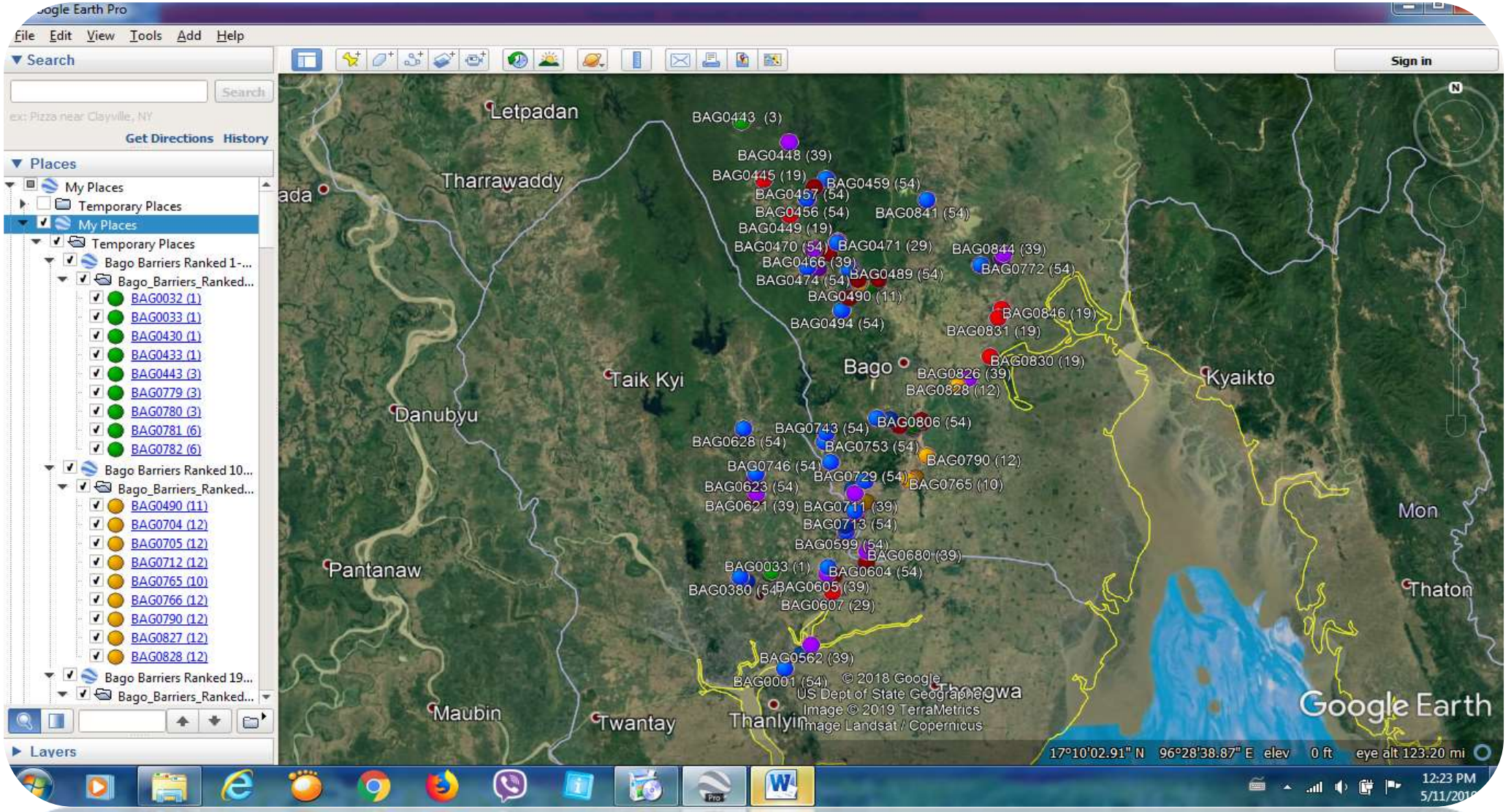
3. design process



4. construction process

5. monitoring fisheries response

Desktop Survey Map Assessment



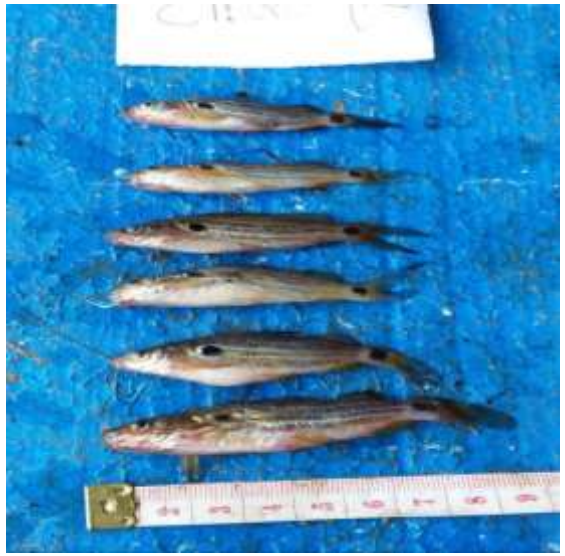
Site Investigations

- Use a standard protocol
- Measurements, fisheries data, hydrological data
- Irrigation and Fisheries Staff +Local communities+fishermen
- Need strong collaboration

Barriers Prioritization

Fisheries data collection in Shangaing and Abyar

- Before Shangaing sluice gate , (37) fish species
- After Shangaing sluice gate , (22) fish species
- At present in survey , (25) fish species are found
- But The catch rate is low one third of of pre barrier



FISH SPECIES AROUND THE SHAN GAING GATE

Fish species around the barrier

- *Gibelion catla*
- *Osteobrama belangeri*
- *Puntius* sp.
- *Mystus* sp.
- *Sperata acicularis*
- *Belone* sp.
- *Macrognathus* sp.
- *Lates calcarifer*
- *Glossogobius* sp. etc…


KOMATSU

Brief assessment