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BioRA DSS Workshop

Recap Day 1

BioRA DSS Technical Workshop
Phnom Penh, Cambodia
15-19 February 2016

Background, Objectives, etc.

Workshop Objective	Coverage	Notes
Knowledge Transfer - Technical Report	Yes	Focal Areas, Indicators, Response Curves Focus on 3 Disciplines
Knowledge Transfer – DSS	Yes	DSS Installation and Overall Navigation
DSS Testing		
Compilation of Comments – Technical Report and DSS	Yes	See next slides

Comments

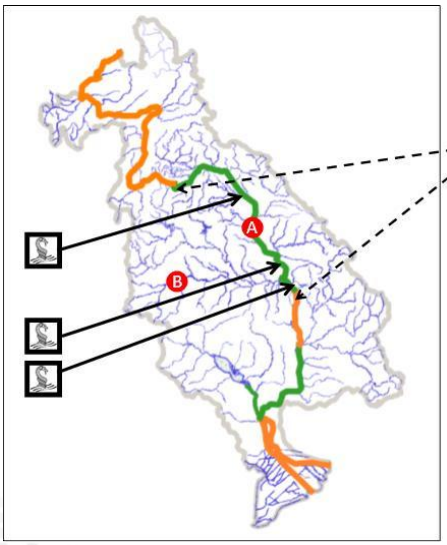
- Periodically expiring license
  - Only during the development of the DSS
  - Once completed, the DSS delivered to MRC will not expire anymore
  - In the future, MCs need a process for version control of the Master Database
- Use of the new acronym ECO-LMB in lieu of DRIFT, BioRA DSS, and other variants
  - Objective: Bring clarity that what is being developed is an Ecosystem model for the LMB
  - Be careful in introducing new terms since it complicates dissemination to line agencies and stakeholders
  - Present within the context of existing framework: DSF (KB, Models, IAT)
  - Further discussion needed

Comments

- Consideration of additional BioRA Zones/Focus Areas
  - Probably will not add value to calibrate new sites at this point. The plan is to use existing Response curves for a focus area at different points in a zone as needed, with DSF output relevant for the additional point(s).
  - The increase in granularity in impacts (for example within a BioRA zone) will be primarily the result of the granularity provided by the DSF models

Impact = Two components (1: Change in flow, sediment, water quality; and
2: Corresponding change in biota/habitat as per the response curve)

Response Curve: Assumed unchanged over a BioRA Zone
Flow, Sediment, Water Quality: Varies over a BIoRA Zone



- Flow, sediment and other characteristics will be different u/s and d/s of development, e.g., "A", and/or u/s and d/s of tributary with development "B"
- RCs will be replicated so that they can respond to different flow, sediment and other time-series.

Comments

- Minimum 5-day discharge
  - Probably needed more than 5 days especially in relation to drought
  - This is not the duration of the season, it is a reflection of the time with lowest flows
- Barrier should link with sediment indicators also
  - Barrier is only dealing with fish. Sediments and other water quality issues are dealt within DSF
- Barrier vs. connectivity: Use one term
- FA3: Upstream of Xe Bang Fai *River*

Comments

- On the reliance on secondary data for the development of response curves in FA 1 – 3
  - Not able to do the field visit in Lao PDR
  - Yes curves based on secondary data
  - Interested in obtaining data from China dams (operations)
- Development scenarios are reflected in the DSF models – changes in flow, sediment, water quality are then used as input to the BioRA DSS
- On the scoring system
  - Concern that SS is arbitrary
  - SS is just a guide – specialists decide on % change and identify the score they should use

Comments

- Sediment budget issue near Mukdahan
  - For the preliminary calibration, sediment time-series were derived from monitoring results – either water quality or historical depth-integrated suspended sediments. Sites were used in which there is a high degree of confidence;
  - Sediment time-series will be generated by the DSF as input to BioRa DRIFT. The sediment component of the DSF is being based on a catchment wide sediment budget and site specific relationships between flow and sediment that provide the best fit to the available results and reflect the geomorphic understanding of the LMB.

Comments

- Map showing a large number of water control structures in NE Thailand is misleading because the structures are associated with small areas (50-100-1000 hectares compared to other water control structures that are associated with much larger areas in other countries
- TNMC has requested Secretariat to remove this map from the MRC database or to use it appropriately
- Also experiencing shift from capture fishery to aquaculture

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Thank You