



Moving towards sustainable development of hydropower on tributaries



Initiative for Sustainable Hydropower (ISH)

ISH01

Identification of ecologically sensitive sub-basins for sustainable development of hydropower on tributaries

Planned and existing hydropower development (location, classification: layout, operation and construction)



List potential Candidate Ecological Areas (CEAs) and identify Ecologically Sensitive Areas (ESAs)



Establish a risk-based framework for sustainable hydropower planning and development in the LMB (identify pressure types and risks of possible hydropower impacts on ESA related river reaches)



Proposal for basin-wide upscaling of the approach



Support for decision making towards sustainable hydropower development

The outcomes and ISH01 risk-based approach aim to support sustainable hydropower in the Lower Mekong Basin (LMB) sub-basins enabling hydropower development but also ensuring the protection of identified Ecologically Sensitive Areas (ESAs) and their environmental quality as well as ensuring overall socio-economic benefit.

ISH01 has been working with all MRC member countries to identify ESAs in the LMB and interactively develop a technical planning and management framework to integrate hydropower planning with environmental issues. This approach ensures an informed basis for sustainable decision making based on a coherent and consolidated method.

Improving the sustainability of hydropower development

The MRC Basin Development Strategy (2011-2015) emphasizes the need for evaluating options for development of sustainable hydropower on tributaries.

The management of tributaries becomes particularly relevant for joint and basin-wide cooperation when these tributaries are 'significant' to the mainstream regarding specific impacts that can be assessed.

The planning and management framework that has been developed by the MRC Initiative for Sustainable Hydropower (ISH) is moving towards integrated, transparent and balanced decision making for sustainable LMB development in sub-basins.

Areas of ecological interest that are linked to national planning documents include protected areas, wetlands, floodplain, hot spots, national parks, wildlife conservation areas and areas of high biodiversity. The ISH01 approach enables the identification of their ecological sensitivity.

Consultation and interactive development with Member Countries so that it is reflective of national policy on the protection of ESAs, and that it is useful for both the energy planners as well and the water and environment regulatory authorities.

Member Countries have been consolidating the following issues within the ISH01:

- Identifications of ESAs
- Hydropower scheme characterization
- Risk assessment regarding impacts on ESAs and related river reaches
- Basis for hydropower planning and management approach
- GIS visualizations

A risk based approach

The planning and management framework that has been developed is based on a risk assessment approach that accounts for the spatial context (local, downstream and upstream effects), the identified ESAs, the risk assessment and in consequence related decision making benefits.

Drawing on international, regional and national experience the approach will provide a practical and replicable tool developed through three modules:

- 1 Steps for identification ESAs in LMB sub-basins and their tributaries
- 2 Steps for the classification of existing and planned hydropower
- 3 Steps for merging identified ESAs and hydropower in sub-basins through a planning and management framework

The ISH01 study modules support the following key aspects:

1. Easy-to-apply hydropower planning and management framework for decision making through a risk based approach
2. Identification of Ecological Sensitive Areas on LMB tributaries and the mainstream

Next step

Finalization of the ISH01 study in a final consultation focusing on a proposal for up-scaling the ISH01 approach to the LMB-wide scale towards coherent decision-making.



For more information, please visit:

www.mrcmekong.org/about-mrc/programmes/initiative-on-sustainable-hydropower/