

6th MRC Regional Stakeholder Forum
2nd Regional Information Sharing Meeting

Report on National Information Sharing
CAMBODIA
(Process and Outcomes)

Proposed Pak Lay Hydropower Project



17 January 2019
Luang Prabang, Lao PDR



I. PROCESS

1. Received PLHPP documents from MRC in July 2018.
2. National Working Group (NWG) established.
3. Distributed the submitted PBHP documents to members of NWG.
4. 1st NC on 28th September 2018 and sent comments to MRC.
5. 2nd NC on 14th December 2018 and sent comments to MRC.
6. Will send Final official comments to MRC and reply form in February 2019.

II. OUTCOMES:

1. General:

- Transboundary environmental impact should be further identified with greater assessment and with proper mitigation plan and measures. In addition, transboundary accumulative impact in cascade dam, existing, under construction and planned, needs to be assessed .
- MRC tools and procedures should be elaborated and used in all assessment and analysis.
- Joint monitoring and action plan is needed and should be operationalized.

2. Hydrology

- Hydrological data for the dam site have been derived mainly from the data from the distant hydrometric base stations at Luang Prabang and Chiang Khan. As indicated by CNR, there is some missing data (1960-1966). More data is needed for dam site to improve the quality of data used or accuracy.
- Impacts of upstream developments analysis should consider all the existing, under construction and planned schemes, both in main stream and tributary and the impacts of climate change.
- More methods for flood frequency and design flood should be considered and be consistent with all dams in cascade.
- Harmonization and verification with MRC data is needed.
- Minimum flow/environmental flow downstream of Pak Lay project be determined or elaborated.

3. Sediment

- Taking all existing and potential future development into consideration in the analysis of transboundary impacts of Pak Lay Hydropower Project including tributaries and propose mechanism for communication in the cascade, especially when flushing sediment.
- Information on models, infrastructure and its operations should be reviewed and updated based on longer term data set and shared.
- Provide more information about the data sources and site-specific sediment monitoring
- information and therefore, there should be an Independent Technical Study Team.

4. Dam Safety

- Baseline data should be updated and presented with quality assurance for all those study reports to input to project design change for dam safety and for mitigation measure.
- Mitigation measures should be proposed after dam safety evaluation, effect of dam break and seismic hazard assessment been carried out and report shared.
- Establish Emergency Preparedness Plan in consultation with possible affected people and establish joint mechanism for relief and/or compensation.
- Establish Independent Panel of Experts compliance with World Bank operational manual OP4-37 or ICOLD and be independent of the Developer and Designer.
- Developer refers to Chinese standard , but International Standards should be compared or elaborated .
- The flood design criteria should be consistent with other dams in the cascade.

5. Navigation

- With little experiences on ship lock, we want to see confirmation from developer by designing ship lock in compliance with PDG to ensure that navigation route can still be operated as it is with safe and without delay.
- More specific reconsider the locations of the 5 dolphins that may hinder the entrance to the future second ship lock, downstream guidance wall, downstream navigation channel to accommodate future second ship lock access and road connections to all parts of the ship lock, also to the downstream lock head.
- The ship lock can be an additional fish passage during idle navigation time.

6. Water Quality

- The PLHPP reports and TRR shown that there is limited data and information of the impacts on other aquatic organism by annual flood cycle and natural variation.
- Water use monitoring system has to be in place as early as possible.
- Assessment on how PLHPP will affect/change on water quality both downstream and upstream should be conducted.
- Water quality should be properly assessed and monitored before dam construction, and monitor regularly and technically during construction and operation of PLHPP, which should be aligned with the MRC's Water Use Monitoring System.

7. Aquatic Ecology

- Should provide a proper technical study of aquatic ecology in down stream and upstream of PLHPP, including cumulative impact assessment of cascade hydropower dams in the mainstream.
- Should have enough data and information on the fundamental and critical issue of the available fish/aquatic habitats and its values, which will be lost, or potential impact on the wider LMB ecosystem, especially the lost of biodiversity's aquatic productivity.
- EMMP should pay attention on the different aquatic habitats, its ecological importance, ecological health and biological hotspot, with enough budget allocation from the developer.
- Sources of fund supporting implementation of mitigation measure and joint action plan and joint environment monitoring should be presented.

8. Fisheries and Fish Passage

- As PLHPP is located in Zone I of the Mekong's Ecological Reach (MRC2010), associated with fish spawning habitats of important migratory species;
- Therefore, baseline data and information during PLHPP preparation must be collected, including the use of available MRC data (MRC council study, fish abundance and diversity monitoring, ecological health monitoring...) for preparing the effective impact mitigation measure of fish migration and spawning, with proper design of fish-pass facilities for both upstream and downstream migration to be met PDG.
- Should have detail technical analysis of upstream and downstream fish passage facilities and design, which require to meet the appropriate capacity of fish migratory species and behavior, through all mainstream cascade dams.
- Should conduct a comprehensive transboundary and cumulative fisheries impacts' assessment.
- EMMP should pay attention on the monitoring for fish passage and key related fisheries issues.

9. Socio-Economics

- Inconsistent statement from developer for Socio-economics (validated)
- Transboundary benefit sharing plan should be considered rather than compensation since project's design process.
- Comprehensive trans-boundary and cumulative impacts assessment over Cambodia including mitigation measure for downstream zone, especially zones 4 and zone 5 should be carried out.
- MRC assessment tools should be employed ,
- Requires clear assessment methodology of the impacts from other sectors were related to socio-economics. To do so will minimize on socio-economics impact,
- Provided for baseline information on socio-economics as much as possible, this will usefully for us for M&E before dam construction and after dam operation .
- Matric Table: the anticipated cumulative social impact/risks was not enough especially related to environmental and Hydropower dam.



Thank You !.....