Mekong River Commission

2nd Regional Stakeholder Forum on the Pak Beng Hydropower Project

FORUM REPORT

5 May 2017
Vientiane, Lao PDR

May 2017

Prepared by
The Mekong River Commission Secretariat

This report is a record of the proceedings of the 2nd Regional Stakeholder Forum on the Pak Beng Hydropower Project hosted by the MRC Secretariat on 5 May 2017 in Vientiane, Lao PDR.

Table of Contents

List of Figures

ACRONYMS AND ABBREVIATIONS

BDP	MRC Basin Development Plan Programme
CIA	Cumulative Impact Assessment
CNMC	Cambodia National Mekong Committee
CSO	Civil Society Organisation
EIA	Environmental Impact Assessment
JC	MRC Joint Committee
JCWG	MRC Joint Committee Working Group
LMB	Lower Mekong Basin
LNMC	Lao National Mekong Committee
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
NGO	Non-Governmental Organisation
PC	Prior Consultation
PDG	Preliminary Design Guidance
PNPCA	Procedures for Notification, Prior Consultation and Agreement
PP	Public Participation
RAP	Resettlement Action Plan
RBO	River Basin Organisation
SEA	Strategic Environment Assessment
SIA	Social Impact Assessment
TNMC	Thai National Mekong Committee
VNMC	Viet Nam National Mekong Committee

I. Background

The Mekong River Commission (MRC) aims for the sustainable development of the Lower Mekong River Basin for the benefit of its people. The MRC is a platform for water diplomacy and regional cooperation in which member states share the benefits of common water resources despite different national interests. It also acts as a regional knowledge hub on water resources management that helps to inform the decision-making process based on scientific evidence.

Since the establishment of the 1995 Mekong Agreement, the MRC has developed five sets of procedural rules on water quality, data sharing, water use monitoring, water flow maintenance, and water use cooperation to support the implementation of the Agreement. The Procedure for Notification, Prior Consultation and Agreement (PNPCA) is one of these. Prior Consultation is a process for the MRC Member Countries to discuss and evaluate benefits and associated risks of any proposed water-use project that may have significant impacts on the Mekong River mainstream's flow regimes, water quality and other environmental and socio-economic conditions.

The Pak Beng Prior Consultation process is part of the implementation of the PNPCA. It serves as a platform for the MRC Member Countries and other relevant stakeholders to discuss and provide views on the Pak Beng Hydropower Project and whether it reflects a reasonable and equitable use of the Mekong River System and what could be done to avoid, minimize and mitigate the negative impacts, especially the ones of a transboundary nature.

II. Overview of Regional Stakeholder Forums on the Pak Beng Hydropower Project

The Pak Beng Hydropower Project is proposed on the Mekong mainstream in the northern territory of Lao PDR. The dam is located between the Jinghong hydropower project in China and the Xayaburi hydropower project in Lao PDR. The run-of-river power plant is planned to have an installed capacity of 912 MW, designed to discharge the flow of 5,771.2 cubic meters per second. The average annual generation of 4,775 GWh is expected to produce power for domestic supply and export.

Lao PDR officially submitted a notification of the Pak Beng Hydropower Project to the MRC Secretariat along with the engineering documents as well as other project documents on 4 November 2016. The six-month Prior Consultation Process for the proposed Pak Beng Hydropower Project officially started on 20 December 2016.

At the first meeting of the Joint Committee Working Group (JCWG) on the Procedures for Notification, Prior Consultation and Agreement (PNPCA) for the Pak Beng Hydropower Project held on 12 January 2017, the meeting agreed on the overall roadmap for the 6-month prior consultation process including the organization of two regional stakeholder fora on the Pak Beng _Hydropower Project.

The 1st Regional Stakeholder Forum on the Pak Beng Hydropower Project was held on 22-23 February 2017, in Luang Prabang, Lao PDR jointly with the Regional Stakeholder Forum on Council Study and had the following shared objectives:

i. sharing information on the progress and expected outputs of these key works of the MRC;
ii. jointly reviewing and providing comments and recommendations on the design of the council study assessment method, tools and indicators;
iii. sharing information, exchanging and documenting views on the proposed Pak Beng Hydropower Project and importance of stakeholder engagement during the process and beyond.

The report of the 1st Forum is available on the MRC website at http://www.mrcmekong.org/assets/Publications/Forum-report-for-website.pdf

Following the success of the 1st Regional Stakeholder Forum, the 2nd Regional Stakeholder Forum is a follow-up step:

- To share the feedback from the 1st Stakeholder Forum and the responses to key issues and comments obtained,
- To present the preliminary technical review results of the Pak Beng Hydropower Project undertaken by the MRC Secretariat,
- To seek the viewpoints, recommendations and suggestions of concerned stakeholders on the technical review results in order to reflect these views in the Technical Review Report (TRR), which will serve as a basis and technical inputs for consideration by the MRC Joint Committee.
- To share information on post-consultation engagement and information sharing plan with stakeholders on the Pak Beng project.

III. Approach and proceedings of the forum

The 2nd regional stakeholder forum focused on the results of the preliminary technical review of the Pak Beng Hydropower Project undertaken by the MRC Secretariat on aspects that mostly follow the checklist of Preliminary Design Guidelines (PDG) as well as other international best practices. The review contains seven aspects as follows:

- Hydrology and Hydraulics
- Sediment Transport and River Morphology
- Water quality and aquatic ecosystem
- Fish ecology and passage
- Dam safety
- Navigation
- Socio-economic impacts

The MRC Secretariat presented details of its preliminary technical review on the submitted documents of the Pak Beng Project with a focus on (1) main findings, (2) trans-boundary/cumulative impacts, (3) alignment to the PDG, and (4) recommendations.

Forum participants raised concerns and questions as well as shared their views and opinions during the plenary session of each presentation and at the break-out group discussion (see Annex 1 – Agenda).

In support of in-depth discussion and viewpoints of concerned stakeholders on the preliminary results of the technical review, the participants chose to participate in four parallel groups for discussion on the following themes: (1) Hydrology and sediments, (2) Water quality and fisheries, (3) Dam safety and navigation and (4) Social and economic

(socio-economic) impacts. Many participants participated in the group discussion on environment and fisheries, and socio-economic impacts, reflecting their interest and concerns on transboundary and local impacts. Meanwhile discussion on dam safety and navigation, and hydrology and sediments included attendance of particular interest to developers as well as others with discussion around potential transboundary and cumulative cascade impacts as well as dam design and operations.

In general, the forum succeeded in achieving its objectives. It (1) clarified MRC's action and responses to the comments and recommendation made at the 1st Forum in February 2017, (2) re-affirmed MRC's commitment for further and wider engagement of stakeholders and concerned partners in the implementation process of the Procedure for Notification, Prior Consultation and Agreement (PNPCA), (3) updated progress overview and next steps of the prior consultation process, (4) shared the preliminary results of the technical review of submitted project documents undertaken by the MRCS, and (5) created a platform to raise concerns and recommend measures to avoid, minimize and mitigate potential transboundary and cumulative impacts which especially affect communities in Thailand, in addition to Lao PDR.

The findings of the final technical review report will support the discussion and negotiation by the JC to conclude the official 6-month prior consultation process with the aim of arriving at a unanimous agreement to recommend a set of measures for avoiding, minimizing and mitigating potential transboundary impacts, if the project proceeds, as stipulated in Article 5.4.3 and 5.5.2 of the PNPCA. The technical review report aims to support a balanced basis for good faith consultations and cooperation, as well as providing some indications of the extent of any possible impacts, and the level of confidence in the findings as well as recommendations and suggestions collected at the two regional stakeholder fora.

At this 2nd Regional Stakeholder Forum on Pak Beng Hydropower Project, there were 190 participants representing MRC Member Countries, development partners, NGOs and civil society, as well as research institutions, academics, private sector, developers, media, and MRC Secretariat (see Annex 2 – List of participants).

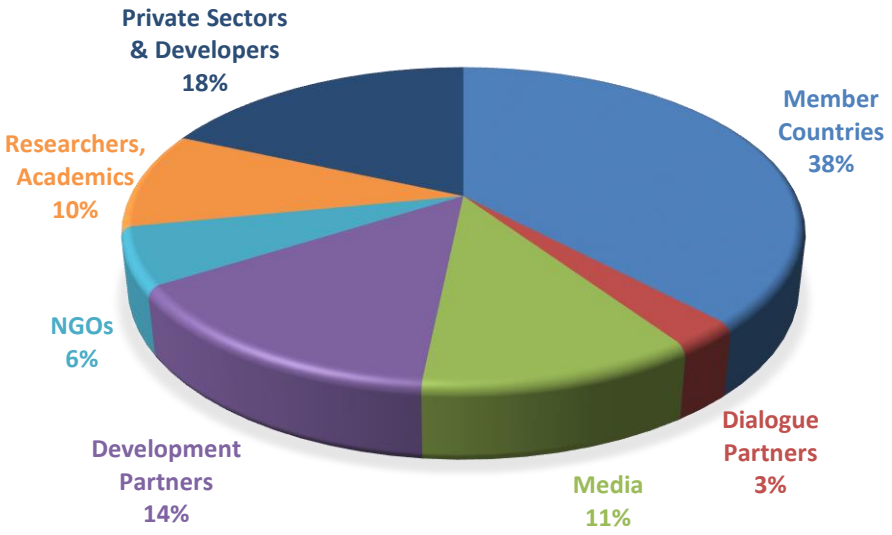

Figure 1. Overview of organisations represented at the 2nd Forum

All project related information is available on MRC website, under Pak Beng Hydropower Project webpage including:

- Pak Beng project submitted documents
- Questions and answers on Pak Beng Hydropower Project
- Presentations of the 1st Regional Stakeholder Forum
- Presentations of the 2nd Regional Stakeholder Forum
- Summary of draft Technical Review Report
- Report of the 1st Regional Stakeholder Forum
- Follow-up of the 1st Regional Stakeholder Forum on Pak Beng: matrix of comments - responses – consideration in the TRR, forum's satisfactory survey feedback
- Report of the 2nd Regional Stakeholder Forum on Pak Beng *(to be uploaded)*
- Follow-up of the 2nd Regional Stakeholder Forum on Pak Beng: matrix of comments - responses – consideration in the TRR, forum's satisfactory survey feedback *(to be uploaded)*
- Technical Review Report *(to be uploaded)*
- Related information: Fact sheet of Pak Beng, Overview of key features of submitted documents, PNPCA brochure, etc …

IV. Preliminary findings and recommendations presented at the Forum (as of 5 May 2017)

This section provides an overview of MRCS's recommendations for each main preliminary finding of the technical review as well as a summary of comments and suggestions discussed at the forum. These comments were mostly recorded in raw form and generally not edited or rationalized.

	Main findings	MRCS's recommendations	Forum's comments and suggestions
Hydrology & Sediments	**Hydrological and sediment data and information should be additionally collected and shared** → Upstream dams in China are likely to affect the flood peak determinations for Pak Beng dam design → Higher flows may occur less frequently while base flows in the dry season maybe higher **Methodology should be additionally explored and verified.** → Sediment loads based on pre-Lancang Cascade measures in China & extrapolated to Pak Beng → Limited actual sampling of bed load → No "ground truthing" with present conditions at Pak Beng **Range of sediment models should be reviewed and updated with additional site specific sediment monitoring.** → Range of models have been applied and run at different times with limited calibration to site-specific data → Detailed sediment modelling only applied to area near project infrastructure → Lack of detail about	→ Quality and consistency of constructed time series should be improved and verified → It's important to cross-check, improve and verify flood peak determination → Additional sediment monitoring is recommended to confirm suspended sediment and bed load and its characteristics → The range of sediment models should be reviewed, cross-checked and updated once additional data is collected through monitoring → Management targets require revision due to recent upstream regulation → Review of sediment management strategy to ensure seasonal or annual sediment flow regimes	? What is the proposed regime of operation of the dam? ? How much more time would be needed to conduct a more complete analysis of the hydrology? ? How can Luang Prabang dam impacts be considered? ? What mechanisms or processes are there to promote sharing of existing data and information to NMCs? ? How will water levels be managed (given uncertainty in hydropeaking and energy demand)? ! More clarity required on daily fluctuation of water level and how it will affect erosion. ! Uncertainty exists on dam operations. More information required on how dams will be jointly operated as cascade dams, including how will floods and droughts be managed. ! Concern raised about the quality of transboundary impact assessment. ! Contention about whether Pak Beng is run-of river given its total storage capacity. ! Inundation map required to show scale and extent of inundation.

	sediment accumulation in reservoir → Lack of detail about seasonality of grain-size discharged downstream → Lack of geomorphic mapping or modelling of downstream channel **Dam design and proposed operations and mitigation** → Operation and management was largely based on pre-Lancang scenarios. → Clarity of water level fluctuations in reservoir and downstream is needed. → Further studies of backwater effect should be conducted. → Further attention required with respect to joint cascade operations. **Impact** → Downstream impacts on sediment transport and river geomorphology should be properly addressed.	→ Coordination of sediment management and operations with other hydropower projects → External engineering review of the infrastructure associated with the sediment management aspects → Provision for seasonal/annual flushing should be considered by incorporating large low level gates → Lower sill level increases water surface slope & depth of sediment flushing → Operational rule should be written in a simple format → Operational rule should consider above mentioned conditions and explore coordinated operations. → Additional investigations into the incorporation of large low level sediment flushing gates in the flood sluicing part of the project → Further studies of the inundation at the Keng Pha Dai reefs, and into Thailand, including the tributaries	? How effective are the existing sluice gates for sediment flushing? ? Are there issues of transferring pollutants as a result of releasing sediment? ? What is the strategy for managing sedimentation? ! Early warning network/system should be considered for informing downstream communities of emergency measures. ! More information needed on sediment flushing strategy. ! Request for details about sedimentation accumulation, geomorphic conditions, data input into model.
Water quality and Aquatic Ecology	→ Baseline assessment of water quality and aquatic ecology in the PBHPP EIA and EMMP is limited → No modelling of likely impacts on aquatic habitats, and thus aquatic	→ Programme for integrated monitoring of water quality, flows and habitats and aquatic ecology, coupled with in- depth studies into the fisheries of the region need to be designed and implemented.	? Whether transboundary effects include Ramsar site in Lao PDR/Cambodia should be evaluated.

	biota. Including in downstream reaches → Water quality issues during construction period can be largely managed through good practice → Water quality during operation managed through vegetation management in reservoir → EIA and EMMP deficient in description of aquatic habitats including geomorphology and hydraulics of the channel likely to be affected, the habitats and their ecological significance Potential large scale disruption of ecosystem services	→ More in-depth EIA needed before any decisions on impacts can be made – currently PNPCA is **scoping analysis** → Relationships between impact of PBHPP and other dams requires full assessment → Assessment of long-distance transboundary impacts of modified flows and sediments on change in habitat, productivity and aquatic ecology required	? Are impacts of the Lancang included in the assessment of fisheries? ? Are recommendations separated into prior/during/post-construction? If not, then it is proposed to specify in this way. ? Emphasize when recommendations need to take effect (e.g. revised EIA to provide improved baseline data needed prior to…) ? How does Pak Beng fish pass design information availability compare to Xayaburi? What is the level of satisfaction in expert opinion regarding fish pass design? Was Xayaburi taken into account for Pak Beng? ? How does Pak Beng documentation rate (quality) in comparison to Don Sahong and Xayaburi? ? If review mentions underfunded fish monitoring programme, what is sufficient funding? ? Recommendations to increase flows for fish passage – what are impacts on operation, power generation → economic feasibility? Can estimates be made and inform discussions with notifying country / developer? ? What's the basis for suggesting the increase to 10% of flow for fish pass –
Fish passage and fisheries ecology	**Assessment of other mitigation measures proposed by PBHPP** → proposed measures weak and only related to management of fish production on reservoir → no measures to compensate for lost wild fish production, especially for rural poor who will not be able to take up fish farming → no indication is given what fisheries personnel provided to support fisheries and aquaculture development → stocking measures are not considered adequate because of	**Regarding fish pass design** → Full review of upstream / downstream passage options, including cost and benefit analysis → Workshop with Developer's design team to further evaluate the design and risks, and develop solutions **Full fish ecology and fisheries impact assessment required**	

	impoundment hydrology and impacts of stocking exotic/invasive species **Insufficient information on monitoring before, during and after construction** → does not address downstream passage success and survival through turbines → underfunded → many issues not covered, especially social and economic impacts and livelihood analyses	→ to fill gaps about fish ecology and fisheries loss of biodiversity in relation to dam operation → trans-boundary fisheries impact assessment required **Programme for fish management and monitoring required** → social and economic livelihoods impact analysis → develop detailed monitoring and mitigation programme, especially to mitigate or compensate for loss of fisheries → develop sustainable fishery management system	detailed percentage might be design-related? ? PPA signed? How realistic is re-design at this point in time that affects flows/electricity generation/obligations for export Whether there has been – or are plans to conduct - an economic evaluation about the economic costs and benefits of implementing TRR findings and recommendations? for the project's economic feasibility and profitability ? Water quality – is there a risk of toxic substance concentration in the bottom/anaerobic conditions? ? Species abundance and composition in upper river reach (Vientiane-China border)? Figures realistic, too high (MRC)? Too low (developer)? ? Can MRC data be verified? (cf. Lao monitoring data) ? Can developer data be verified? (cf. Xayaburi data)? ? Concern over fish biomass information available? ? Transboundary impact assessment should include impact on Dolphins? ? Does fish passage function in the Mekong?

			? To what extent international experience consulted? - Downstream passage generally problematic? ? To what extent were developers involved in the consultation? ? To what extent can hydropower be considered a form of "green" energy? ? Can stratification be excluded? ! Joint Action Plan (JAP) should consider all recommendations and specify stages of future engagement (extension of 6-month process shall be raised for JC consideration at its Special Session on 19 June 2017) ! It needs to consider sequencing and its potential to reduce the scope of implementing review recommendations or proposed mitigation measures, if the project proceeds. For example, the Power Purchase Agreement (PPA), would generally have commitments regarding electricity generation, which in turn may affect amount of flow available for e.g. the fish passage. ! More in-depth assessment; studies on loss of fisheries, environmental risks needed; hatcheries need early-on consideration. ! EMMP and Action Plan need to be comprehensive and sufficiently funded

			! Main findings and recommendations under this topic should be treated as preliminary. Further justification is needed. Technical reference for figure on fish mortality is needed.
Dam safety	**Dam Design Criteria – Floods** → Dam Design is based on the 1 in 500 yr and the 1 in 2,000 yr floods return period, only **Dam Design Criteria – Seismic** → Local faults are described as active. → The dam is located in an area of regional seismicity with several historic earthquakes of >6 magnitude → ICOLD safety evaluation earthquake (SEE) depends on the hazard created by the dam. 5000yr would be acceptable for a medium hazard dam. → Dam designed is based on probability of 475 yr and the 5,000 yr events. Peak Ground Accelerations (PGA) of 0.157g and 0.372g **Dam Design Criteria – Structural Stability and Geology:** additional technical clarification is needed to explain:	→ International standards recommend checking the design with • the Probable Maximum Flood (PMF) to demonstrate that the dam will not fail under extreme load; • To check with most extreme case such as "a low flood return period when the greatest differential head occurs between upstream and downstream water levels" → Appoint an Independent Dam Review Panel as soon as possible (as recommended by the World Bank, indirectly by ICOLD and the PDG) i.e. at the earlier stage of the detailed design → Study a dam break assessment and the extent of the impact to the downstream areas of the dam → Take into account the earthquake events occurring in Chiang Rai particularly the one in 2014. → Consider additional seismic design accelerations tests due to the regional seismicity and the closeness of an active fault to the site.	? Wouldn't such a design expose Pak Beng dam to more dam failure hazards? ? According to the presentation provided by MRCS the dam will be built next to the middle fault (F2) where frequent recorded earthquakes occurrences in the project area were greater than Magnitude 6. Wouldn't such a dam location be dangerous? Are there any explanations provided for such a selection in such a risky place? Response by Director General of DEPP/MEM: the dam has been designed to be able to withstand earthquakes of Magnitude 9. He has also added that an additional dam safety related report to explain dam safety improvement will be submitted to MRC in two weeks' time. ! Xayaburi hydropower project usesuse extreme cases and high values to ensure that the safety design for its dam is

	→ structural design criteria particularly Design Criteria related to sliding, overturning, strength and other structural criteria; → Methods of assessment, factors of safety and material characteristics; → mitigation measures applied to Areas of weak rock in the foundation under the structural design of the dam as well and at the end of stilling basin and other waterways **Operational Dam Safety Planning and Management:** additional technical clarification to provide additional details for: → Detailed development of operational strategy between Pak Beng dam and other downstream schemes such as Xayaburi and Don Sahong HPPs; → A detailed failure modes assessment to inform the dam design, dam safety management plans and emergency planning for the downstream areas → Dam break study to assist in understanding of hazards imposed by the dam and preparation of the emergency preparedness plans		sound and realistic while Pak Beng hydropower dam seems to use much lower numbers.

Navigation	**Single lift lock or tandem lock?** → the current proposal is for a single lift system which needs more than 30m to lift or lower shipping. The single lift proposed for Pak Beng dam: 36.46m high. Problem of single lift: There have been many studies on cavitation problems in high lift ship locks, particularly with the valves MRC Design guidance for Mekong mainstream dams: "greater than 30m lift should use two locks in a series (tandem); **Cavitation problem** → The current design is similar to the Yingpan lock which has cavitation and heavy vibration. → Several locks with similar water heads, amongst others the John Day lock, have encountered severe cavitation problems. **Upstream approach channel** → The upstream approach channel is narrow: The downstream approach layout is the mirror of the upstream approach with preferably the guiding wall on the same river bank.	→ the single lift system be redesigned to a double lift system. Redesign the ship lock from single lift to tandem lock with 2 x 16.19 m lift);	? Does the project replicate Xayaburi structure with double lock and two-step? ? Criteria to decide medium or high impacts with regards to dam safety (dam break probability). 30 meter criteria comescome from where? Use criteria in the PDG because in 50 years ahead the development not so much, use expert judgement. ? What is the definition of the lock? ? The specification in the PDG is preliminary, is it final? ? General development of navigation from Yunnan to lower Mekong. ? What is the impact of clearing the rock along the river to the volume of the vessel? ? 2000cubic2000 cubic per meter release from Jinghong dam can make the navigation move easily. ? Does MRC consider the length of the guide wall and the 2 ways traffic? As if only 1 way will reduce the transportation capacity and time consuming/ ? Is it possible to have one way up and one way down boats at the same time? ? Using the ship lock, is it free of charge? ! Lao MEM corrected information on the ship lift being 28m high, not 36m as

	The downstream approach channel → The downstream channel has to be redesigned, especially the slope at the right embankment for improving accessibility; → Visibility should be improved in the bend. Thereby accepting that the design vessel should be the 1,500t – 2,000t vessel that theoretically can enter the lock chamber; → Modelling the right river bank (the steep slope) should be able to accommodate the second ship lock. Therefore, the channel axis of both ship locks has to harmonize up- and downstream and smoothly link with the navigation channel up- and downstream. **Mooring system** → Line Hooks have to be provided in *all access walls, up- and downstream, left and right bank.* Useful tools for last-minute adjustments while entering the ship lock. → *At least every 100 metres there needs to be a ladder* in recesses of the guiding walls of the lock, up- and downstream. → The 4 planned dolphins *upstream the ship lock must have access*	→ PIANC (International Waterway Association) recommendation: there should be sufficient lay-by area for vessels, waiting area (in accordance with the traffic) and overnight berths → Redesign both of the access and approach channels, especially the downstream approach with the embankment to be excavated with considering the second lock-design;	stated in the presentation. Therefore, there is no need for two steps lift. PDG says two steps lift is required beyond 30m. ! Add floating morebic as this can make the mooring better ! Recommended for Xayaburi with the mobile by the MRC technical review group as the fixed line hook can be dangerous. ! Consider facilities to transport boats upstream-downstream for ease movement of the boat. ! Look the maximum flow velocity to ensure the boat can move. ! Consider 28-meter water level height of the lock. ! Provide training for the captain, pilot who use the lock. ! Concern 2 step lock as when doing research good practices more than 30 still well, 2 step lock will be very costly and take a lot of time ! The narrow of the river will increase water flow, make the current too strong for small boat ! Consider 2 lift navigation lock ! Length of the lock, practically can be done faster 20 min ! Cavitation: Water head over 30 the probability is very small, in whole year

	(catwalk) to the road for skippers and boatmen. **The ship lock equipment** → There is no control house on the lock platform → There is no upstream apron → The grouting screen should be at the deepest point and double: one upstream, one downstream; → The access bridge over the lock chamber should respect the 15.00m air clearance and has to be lifted by approx. 3 m → Possible danger of seepage; → Possible danger of piping if there are dispersive soils in the subsoil;	→ Complete the lock equipment with the suggestions in the report: amongst others: additional ladders in the approach walls, line hooks, upstream apron, grouting screen, etc.; → Complete the lock with a control house; → Lift the service bridge over the lock by approx. 3 m.; → Redesign the access road to the lock platform; → Prepare the list of required spare parts to be delivered	round less than 1 day with this height of water.
Socio-economic impacts	→ Submitted documents attempts to cover a wide range of issues (livelihood, education, infrastructure, tourism, cultural) → Baseline data is detailed on areas along the 5 km corridor → Section 5 of the TbEIA & CIA builds on research and publications of varied reliability **Methodology & data** → The assessment does not compare future developments with and without PBHPP.	**Strategies to improve the assessment:** → Provide robust evidence for the effectiveness of the proposed mitigation measures → Make use of available external and MRC datasets → Disclose expert panel details and assessment criteria → Provide comparison of futures with and without PBHPP → Consider socio-economic modelling to assess the losses, risks and benefits for	? Impacts on tourism (by boat) from Chiang SaenSen to Pak Beng and Luang Prabang, has this been studied? ? Proximity distance between Chiang Rai and the project should be rechecked, 88 km vs 97 km? ! Gender analysis is important to better understand – and address - not only potential impacts in Laos, but also transboundary impacts. For example, one of the recommendations for "strategies to improve assessment" relate to assessing "the losses, risks and

	→ MRC data bases and documents not utilized (e.g. Basin Development Plan 2) → The socio-economic analysis was not as rigorous as it could be (no socio-economic modelling, no details on the expert panel, sampling, consultation workshop participants) → Numerous data inconsistencies (e.g. poverty levels, resettlement numbers, current and future land uses) **Affected areas and types of impacts** → Current situations presented but no assessment of impacts in the 5 zones → Limited consideration of impacts upstream (focusing mainly on navigation and a partial fish survey, not on livelihood consequences due to reduced fish catch) → Lack of supporting evidence for the effectiveness of proposed mitigation options (e.g. fish ladders – fisheries impacts)	downstream livelihoods, food security, poverty levels and migration. **Mitigation measures for consideration** → Implementation of an aquaculture programme to make up for the lost fish eggs and larvae → Livelihood transition programmes designed and fully resourced; e.g. training programmes → Participatory resettlement planning	benefits for downstream [presumably this includes transboundary] livelihoods, food security, poverty levels and migration" – all of which have gendered dimensions. The Technical Review, particularly socio-economic assessment component, needs to undertake a gender analysis. Or at the very least, given the technical review of project documents has identified gender as one of the gaps that the technical review includes a recommendation on how to address the gap in gender data both in terms of assessment and ways to avoid, reduce and mitigate adverse impacts, if the project proceeds. ! Recommend undertaking gender analysis related to transboundary impacts. ! Scope of analysis for socio-economic up- and downstream, isolate single dam effect as well as cumulative impact from cascade. ! Results from 89 questions should be presented in the analysis (with different rating classification of impacts). ! Scope should include analysis of back water effects on socio-economic aspect. This should also include the two upstream tributaries in Thailand.

			! Need further study on socio-economic impact after the detail designed stage of the project. ! Recommend including analysis of wetland impacts in Cambodia. ! Transboundary food security issues should be addressed. ! Impacts on dolphins upstream close to Myanmar and downstream in Cambodia. ! Culture issues ! Downstream impact below Pak Beng to Xayaburi dam should be considered. ! Key affected areas should be the focus of analysis ! Stress importance of transboundary impacts. Local impact is a national concern. ! Revisit WUP/EP working papers on transboundary flow management related SE (MRC archive). ! Tourism is linked with local income not just freedom of navigation. This is important for socio-economic analysis.

In addition, there were comments regarding the PNPCA process, especially the linkages between national and regional planning processes, and greater involvement of affected communities living downstream, particularly:

- Not adequately allowing representatives of affected communities living downstream to join discussion

In response, the MRCS clarified that for Prior consultation process, stakeholder engagement is implemented at two levels of regional fora and national stakeholder meetings. The MRC Secretariat organised two regional fora (in Luang Prabang and Vientiane) while NMCS of notified countries (Cambodia, Thailand and Viet Nam) run two to five national meetings. Representatives of affected communities were engaged and invited at national level. It is also of note that the regional stakeholder forums, although targeted to interested regional parties, are open and can be joined by all parties, including from the national levels.

- Are there any linkages between national and regional planning processes? Whether there have been discussions on the relationship and alignment between regional process (to inform a set of measures) and national planning and approval process in Lao PDR, including for example, if there have been discussions on how the 'set of measures' could inform negotiations and be incorporated into the Concession Agreement (CA), if the project proceeds. As Standard Environmental and Social Obligations (SESO) are annexed to CAsCas in Lao PDRLaos, which outline commitments to address social and environmental impacts, among other things; and also include resourcing and financing commitments for social and environmental measures. If the project proceeds, integrating relevant items from the regional "set of measures" into the SESO could help ensure that the measures are implemented with sufficient resourcing and monitoring.

In response, the MRCS informed that a set of measures will be discussed at the MRC Joint Committee meeting. Main focus is on mitigating, avoiding or minimising transboundary impacts. This will require diplomatic channels (soft diplomacy) and commitments to ensure set of measures are actioned. It is also of note that many of the MRC recommendations for Xayaburi were incorporated into the redesign even during implementation of the project.

- PNPCA requires "Agreement" so on what basis can MRC say that a PNPCA is not a "yes" or "no" decision process?

In response, the MRCS clarified that in accordance with the PNPCA that Prior Consultation is neither a veto right, nor a right for any riparian to unilaterally proceed without considering other riparians' rights. This implies that the outcome needs to be based on mutual understanding and collaboration as well as negotiation in good faith among the MRC member countries. PC does not require "agreement"; it is only for the JC to aim to reach agreement or conclusion on the proposed use.

V. Alignment with the MRC' Preliminary Design Guidance

The technical review has determined alignment/compliance with the MRC's Preliminary Design Guidance (PDG) for Proposed Mainstream Dams in the Lower Mekong Basin. This PDG provides preliminary design guidance in the form of performance targets, design and

operating principles for mitigation measures, as well as compliance monitoring and adaptive management for reducing the environmental and social risks posed by hydropower schemes.

Its intention is to provide developers of Pak Beng project with an overview of the issues that the MRC will be considering during the process of prior consultation under the 1995 Mekong Agreement. Responsibility for ensuring compliance with national standards and provisions of the 1995 Mekong Agreement remains with the project developers. The guidance is founded on a set of basic Integrated Water Resources Management (IWRM) principles, international best practice and the relevant primary legislation of Member States, namely:

- Avoidance over mitigation: Emphasis on the avoidance of impacts is preferable to the mitigation of impacts - or compensation for unmitigated impacts; taking care to avoid permanent loss of environmental assets, in particular permanent biodiversity loss.
- Water as an economic good: Responsibility for mitigation measures and economic compensation for unmitigated impacts is born by the project and users of services it provides. Because it is not always possible to attribute losses to any one particular dam in a cascade, a procedure may be required to ensure that all projects contribute to mitigation measures, particularly for major impacts on the communities that have their livelihoods affected. The extent of such contributions would depend on the scope, extent and valuation of potential impacts.
- Adaptive management: Given the uncertainty, there will be a need for adaptive management. In the past, potentially significant impacts have often been omitted from concession agreements and power purchase agreements, as operations were dictated predominantly by power dispatch arrangements. Therefore, it will be necessary to include appropriate provisions for adaptive management in both concession agreements and power purchase agreements.
- Good practice and safe operations: Implementing designs, operation and maintenance regimes, and institutional arrangements according to international good practice and safety standards.

During the process of the Technical Review, the MRCS specialists with support of international technical experts have also reviewed alignment of submitted project documents with the preliminary guidance provided in the following areas:

- Guidance on Navigation Lock Design and Operations
- Guidance on Fish Passage Design and Operation
- Guidance on Sediment Management and River Morphology
- Guidance on Water Quality and Aquatic Ecology
- Guidance on Safety of Dams

The level of alignment of submitted Pak Beng project documents with PDG is reviewed in the full Technical Review Report, the following table summarizes alignment of Pak Beng:

Technical areas	Alignment with PDG
Hydrology, Sediment Management and River Morphology	Submitted documents suggest only partial alignment with PDG ✓ Minimization of rapid water level fluctuation in the reservoir and downstream.

	✓ Consideration of environmental flow: → *MRC Procedures – Procedures for the Maintenance of Flows on the Mainstream (PMFM).* ✓ Inclusion of large low level gate and its operation to maintain annual and seasonal coarse sediment routing. Guidance for a formal external engineering review.
Water Quality, Aquatic Ecology, Fish Passage Design and Operation	Documents provided suggest only partial alignment with PDG ✓ Fish passage facilities highly superficial ✓ Planning and design of the fish ways not fully integrated into the dam design and relationship to downstream dams has not be explored ✓ Weaknesses in the ecological appraisal of the fisheries around PBHPP related to effectiveness of fish passage facilities for the diversity of species ✓ No information on the hydrological and hydraulic conditions in and around the dam site and proposed fish passage facilities ✓ Information on monitoring and evaluation superficial and needs full specification
Dam safety	✓ The FSR has provided substantial information about the results from a comprehensive feasibility assessment of the PBHP Project. ✓ The Dam Safety issues are covered in the Pak Beng Engineering Status Report. They are generally in alignment with the MRC PDG. While the FSR largely aligns with the MRC PDG, yet the review and findings recommend the provision of additional elaboration, studies and details in the future if the PBHPP will proceed.
Navigation Lock Design and Operations	The proposed navigation lock is not in line with the recommendations for a double lift lock for heads greater than 30m in the PDG.

VI. Conclusion and next steps

The MRCS has made an attempt to capture all key comments and views and documented them in this report. The MRC Secretariat has also tried to provide answers to most questions based on the information available. For those questions and recommendations that are outstanding, there is a need to discuss and consult further with the developer and Lao PDR Government. These answers/feedback will be followed up and shared as applicable with stakeholders via MRC engagement mechanisms.

In summary, the MRCS will continue completing the Technical Review Report taking into consideration comments and suggestions raised and addressed at the Regional Stakeholder Fora.

Discussions & Recommendations	Issues to follow up
Hydrology, Hydraulics, Sediment and River Morphology	**Hydrology, Hydraulics, Sediment and River Morphology**

▪ Operations rules – developer in better position. ▪ Sediment decrease in the long-term – clarification. ▪ Data inputs used in modelling – not much change on seasonal flow. ▪ How much time required to understand - developer. ▪ Why didn't developer use MRC's products (i.e., ISH 0306 mitigation guideline study) ? ▪ Lao PDR has considered Keng Pha Dai impacts by lowering the full supply level (400 MW lost)	▪ Climate Change analysis for the dry and wet seasons (changes in rainfall). ▪ More information on water level fluctuation (daily average flow). ▪ Cascade operation rules/strategy for managing downstream extreme events – flood and drought. ▪ Backwater effect for Keng Pha Dai in term of local flood management and influence of tail water of Luang Prabang ▪ Dam safety – early warning system, during construction and operations.
Fisheries and Environment ▪ Some recommendations need further clarification and treat them as preliminary ones – mortality rate. ▪ Are RAMSAR sites of Cambodia included in TB fisheries impacts assessment?	**Fisheries and Environment** ▪ Availability and quality of baseline data. ▪ Level of engagement with Xayaburi and Don Sahong developers ▪ TB fisheries impacts assessment requested ▪ Sufficient funding for monitoring programme
Navigation ▪ One step or two steps? Comparison will be shared in 2 weeks.	**Navigation** ▪ Having the double lift ship lock. ▪ Further discussions with developer and other agencies – two-way traffic in waiting. ▪ Using crane to move the boats over construction site. ▪ Training for captains – required
Dam Safety ▪ Additional information on dam safety will be available. ▪ Design safety during construction period required.	**Dam Safety** ▪ Dam break analysis to understand hazard for emergency preparedness operations. ▪ Consider additional seismic design test – too close to active fault.
Socio-economic impacts ▪ Gender aspect looked at by developer or MRCS? If not, why? ▪ Socio-economic impacts of upstream and downstream? Impact zoning. ▪ Not only local scale but TB scale of socio-economic impacts.	**Socio-economic impacts** ▪ Scope review – backwater effect on livelihood. ▪ TB impact of wasteland and dolphin. ▪ Definitions of TB impacts and their significance to be checked by MRCS. ▪ Downstream impacts below Pak Beng to Xayaburi. ▪ Key affected areas should be the prime focus.

With regard to next steps, the 3rd Meeting of PNPCA JCWG is planned on 7th June 2017 when the meeting will consider the final draft TRR, before sending the final Technical Review Report to Member Countries and sharing it with stakeholders.

On the 19th June 2017, the MRC JC will meet through a Special Joint Committee Session to discuss the findings of the PNPCA JCWG based on the TRR and review the formal responses by the notified member countries through the Reply Form in order to derive common agreement on a Joint "Statement" including key recommendations (*a set of measures*), and issues related to mechanism and process for Joint Action Plan (JAP) development and PNPCA process improvement, if the project proceeds.

In principle, the 6-month prior consultation process might close on 20 June 2017, however the PNPCA process and post prior-consultation engagement plans will continue with discussion and follow-up actions.

VII. Forum's photo gallery


Cumulative impact: Sediment
Reduction in sediment supply
Downstream channel erosion


2nd REGIONAL STAKEHO
ON THE PAK BENG HYDROPOWER PROJE
SHARE
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5 May
Vientiane,
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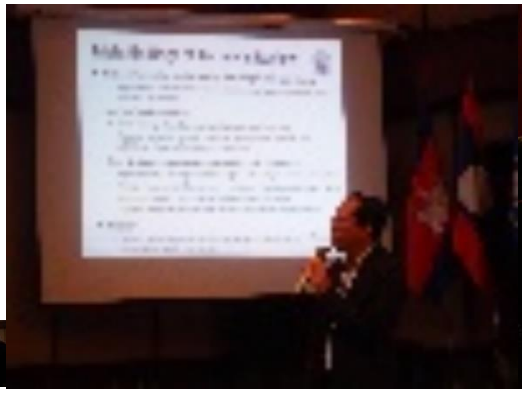



5 May 2017,


2nd REGIONAL STAKEHOLDER


MRC
2nd REGIONAL STAKEHOLDER FORUM
ON THE PAK BENG HYDROPOWER PROJECT
SHARE LISTEN ACT
5 May 2017, Vientiane, Lao PDR


LISTEN ACT
Vientiane, Lao PDR


MRC
2nd REGIONAL STAKEHOLDER FORUM
ON THE PAK BENG HYDROPOWER PROJECT
SHARE LISTEN ACT
5 May 2017, Vientiane, Lao PDR

ANNEXES

Annex 1. Agenda

AGENDA

2nd Regional Stakeholder Forum on the Pak Beng Hydropower Project

5 May 2017 | Lao Plaza Hotel | Vientiane, Lao PDR

Time	Programme	Presenter & support
SESSION 1: INTRODUCTION		
8:30	Welcome (5')	Dr. Pham Tuan Phan, CEO of MRCS
8:35	Opening remarks (10')	Vice Minister of Natural Resources and Environment
8.45	**Recap of the last forum**, documentation and response to key comments, and the specific inputs needed from this forum (15') Q&As (10')	Dr. Anoulak Kittikhoun, Chief Strategy & Partnership Officer, MRCS
9.10	**Overview and progress with the PNPCA process** for Pak Beng Hydropower Project, including summary of key events so far and roadmap for future consultations and information sharing (15') Q&As (10')	Dr. An Pich Hatda, Director of Planning Division, MRCS
9.35	Overview and background of the preparation of the draft **Technical Review Report** of the Pak Beng project (15') Q&As (10')	Dr. Thim Ly, Chief River Basin Planner, MRCS
10.00	Coffee break (20')	
SESSION 2: PRELIMINARY TECHNICAL REVIEW		
10.20	Hydrology and Sediments (15') Hydraulics and River Morphology (15') Q&A (15')	Dr. Paradis Someth, Acting Chief Hydrologist, MRCS
11.05	Environment (15') Fisheries (15') Q&A (15')	Dr. So Nam, Chief Environment Management Officer, MRCS

11.50	Dam safety (15') Q&A (10')	Mr. Voradeth Phonekeo, Technical Adviser, MRCS
12.15	Lunch (60')	
13.15	**Video and picture illustration of Pak Peng site (30')**	
SESSION 2: PRELIMINARY TECHNICAL REVIEW (CONTINUED)		
13.45	Navigation (15') Q&A (10')	Ms. Thi Thanh Yen Ton Nu, Navigation specialist, MRCS
14.05	Socio-economic issues (15') Q&A (10')	Ms. Nguyen Thi Ngoc Minh, Socio-economic specialist, MRCS
SESSION 3: DISCUSSIONS & RECOMMENDATIONS ON TECHNICAL REVIEW		
14.30	**Group discussions** & recommendations (60') on preliminary technical review findings in four stations: 1) hydrology/sediment, 2) environment and fisheries, 3) dam safety and navigation, and 4) socio-economic	1) Paradis (with Nadeem) 2) So Nam (with Maria) 3) Voradeth/Yen (with Santi) 4) Minh (with Ly)
15.30	Coffee break (20') & return to plenary	All
15.50	**Report back** on key comments and recommendations (5' per group) Q&A (10')	Rapporteurs (to be appointed)
16.20	**Reflection Panel** of MRC and Notifying Country representatives and experts – on key comments and recommendations (40')	MRCS CEO, Chair of the MRC JC for 2017, representative of Laos MEM, representative of civil society in Thailand, representative of Cambodia, representative of Viet Nam
SESSION 4: CONCLUSION AND NEXT STEPS		
17.00	**Recap** of overall key points and future plan for engagement and information sharing on the Pak Beng project (10') Clarifying Q&A (5')	Dr. An Pich Hatda
17.15	**Thank you remarks** and closure of forum (5')	Dr. Inthavy Akkharath, Chair of the MRC Joint Committee for 2017

Annex 2. List of participants

No	Name	Organization
1	H.E. Mr. Te Navuth	CNMC
2	H.E. So Sophort	CNMC
3	Mr. Chan Sodavath	MME
4	Mr. Chea Sina	MoE
5	Ms. Kaing Khim	MAFF
6	Mr. Sok Khom	CNMC
7	Mr. Hak Socheat	CNMC
8	Mr. Thay Piseth	CNMC
9	Mr. Chea Vannara	MOWRAM
10	Mr. Say Bunchheng	MFAIC
11	Mdm Monemany Nhoybouakong	MONRE
12	Mr. Sommith	MONRE
13	Dr. Inthavy Akkharath	LNMCS
14	Dr. Daovong Phonekeo	MEM
15	Mr. Chansaveng Boungnong	MEM
16	Mr. Chanthachith Amphaichith	LNMCS
17	Mr. Phonepaseuth Phouliphanh	LNMCS
18	Mr. Khamphang Duangthongla	MOFA
19	Mr. Prasith Deemanivong	MONRE
20	Mr. Sommano Phounsavath	Ministry of Agriculture and Forestry
21	Mr. Souphanh	Ministry of Public Work and Transport
22	Dr. Kayiphone Phouthavong	Ministry of Agriculture and Forestry
23	Mr. Ariyhasuck Tounalom	MONRE
24	Mr. Keomany Luanglith	LNMCS
25	Mr. Phetsamone Khanophet	LNMCS
26	Mr. Viengsay Sophachan	LNMCS
27	Mr. Khamsome Philavong	LNMCS
28	Mr. Ketsana Xaiyasarn	LNMCS
29	Mr. Thongthip Chandalasang	LNMCS
30	Mr. Somphone khamphanh	LNMCS
31	Mr. Thilaphone Phoumma	LNMCS
32	Ms. Latsamy Banmanivong	LNMCS
33	Vathana Vansyli	Ministry of Energy and Mines
34	Lamphone Dimanuvong	Ministry of Energy and Mines
35	Vimala Bulyaphol	Ministry of Energy and Mines
36	Phakkavanh Phitssamay	DESIA, MONRE
37	Thatsamy Maivong	MEM
38	Dr. Akhoudeth Vongsay	DEB
39	Sanhya Somvichith	DEPP, MEM

40	Mr. Chatchai Silpsoonthorn	Office of Natural Resources, and Environmental Policy and Planning
41	Ms. Anongtip Pongsuwichedsak	Electricity Generating Authority of Thailand
42	Mr. Pisit Phomikong	Department of Fisheries
43	Mr. Sangob Namvichai	National Human Rights Commission of Thailand
44	Mr. Apichat Hongsawong	upper Northeastern Province
45	Mr. Boonlia Khinwan	lower Northeastern Province
46	Dr. Vithet Srinetr	
47	Dr. Pongsak Suttinon	
48	Mr. Hannarong Yaowalers	
49	Assoc. Prof. Chaiyuth Sukhsri	TNMCS
50	Ms. Nuanlaor Wongpinitwarodom	TNMCS
51	Ms. Panporn Suwan	TNMCS
52	Ms. Nguyen Thi Thu Linh	VNMC
53	Dr. Nguyen Chi Cong	MONRE
54	Mr. Nguyet Viet Anh	MARD
55	Ms. Le Thi Huong	VNMC
56	Mr. Nguyen Huy Phuong	VNMC
57	Mr. Ngo Manh Ha	MONRE
58	Ms. Vu Thuy Minh	MOFA
59	Mr. Truong Trong Doanh	MOT
60	Mr. Le Tran Nguyen Hung	MARD
61	Dr. Vu Ngoc Long	VAST
62	Mr. Tran Hong Duong	Embassy of Viet Nam in Lao PDR
63	Li Hong	Permanent Mission of China to UNESCAP
64	Wu Haichao	Permanent Mission of China to UNESCAP
65	Hao Li	Ministry of Water Resources, China
66	Yu Weiqi	Department of Environment Protection
67	Thomas Lammar	The Embassy of Luxemburg in Laos
68	Daniel Klasander	Embassy of Sweden
69	James Gallagher	U.S. Embassy, Vientiane
70	Somsanouk Nouansyvong	U.S. Embassy, Vientiane
71	Julien Katchinoff	U.S. Department of State
72	Tahra Vose	U.S. Department of State
73	Tom Kompier	Embassy of Netherlands in Viet Nam
74	John Dore	Australian Embassy
75	Dominique Vigie	Australian Embassy
76	Ounheuan Saiyasith	Australian Embassy
77	Barbara Jaggi Hasler	Embassy of Switzerland
78	Phothong Siliphong	Embassy of Switzerland

79	Christian Olk	German Embassy, Vientiane
80	Bertrand Meinier	MRC-GIZ Cooperation Programme
81	Ana Felicio	MRC-GIZ Cooperation Programme
82	Maria Konig	MRC-GIZ Cooperation Programme
83	Anne Chaponniere	MRC-GIZ Cooperation Programme
84	Sopanga Set	MRC-GIZ Cooperation Programme
85	Colin Manz	MRC-GIZ Cooperation Programme
86	Viengsompasong Inthavong	World Bank Lao
87	Daryl Fields	World Bank Lao
88	Matthieu Bommier	Agence Francaise de Development
89	Silavanh Vongphosy	Oxfam
90	Gary Lee	Oxfam (Mekong Regional Water Governance Program)
91	Kim Geheb	CGIAR Water Land and Ecosystems
92	Touch Thou	RCC-River Coalition in Cambodia (The NGO Forum on Cambodia)
93	Phourn Yu	NGO FORUM on Cambodia
94	Tek Vannara	NGO FORUM on Cambodia
95	Dao Trong Tu	Viet Nam River Network
96	Kate Ross	International Rivers
97	Nguyen Nhan Quang	Centre for Promotion of Water Resources Management (CIWAREM)
98	Christy Owen	Pact in Thailand
99	Latdaphone Phengsavanh	SODA Laos
100	Song Xinfeng	China Datang Overseas Investment Co.,Ltd
101	Deng Bo	Datang (Lao) Pak Beng Hydropower Co.,Ltd
102	Zhu Wensong	
103	Zheng Binqing	
104	Wu Tao	
105	Lv Chenguang	
106	Sone thavi	
107	Zhou Yechao	
108	Xie Guanglin	
109	Li peng	
110	Qi Zhenyun	
111	Wang Dacai	
112	Mei zhihong	KHIDI
113	Yu Haomiao	
114	Peng Fuping	
115	Shi Yuliang	
116	Ren Jie	
117	Kosit Vichitpanomsilp	Electricity Generating Public Company Limited
118	Saksit Suntharekanon	

119	Chanyaphak Surapong	
120	Knut Sierotzki	Poyry Energy Ltd.
121	Michael Eric Raeder	Xayaburi Power Company Limited
122	Rewat Suwanakitti	
123	Virawan Sombutsiri	
124	Prat Nantasen	
125	Thanasak Poomchaivej	
126	Saknoi Leangtongplew	Charoen Energy and Water Asia Co., Ltd. (CEWA)
127	Chawin Prapanukool	
128	Preechaya Aunchai	
129	Chitraporn Intharanok	
130	Varinya Kanjanapone	
131	Ko Youn Ho	Korea western Power - Lao International
132	Oh Yi Sung	Korea western Power - Lao International
133	Courtney Weatherby	The Stimson Center
134	Palikone Thalongsengchanh	National Agriculture and Forestry Research Institute (MAF)
135	Shi Guqoing	National Research Center for Resettlement at Hohai University,China (Member of Universities Network, NSHD-M)
136	Nguyen Thanh Tung	Institute for Hydropower and Renewable energy (IHR)
137	Win Naing Tun	Myanmar Environment Institute
138	Hang Leakhena	Institute of Technology of Cambodia
139	Somvilay Chanthalounnavong	Faculty of Forestry, NUOL
140	Somkhit Boulidam	Faculty of Social Sciences, National University of Laos
141	Le Thi Quynh Tram	Lower Mekong Public Policy Initiative
142	Nguyen Van Giap	Lower Mekong Public Policy (LMPPI)/Fulbright Economics Teaching Program (FETP)
143	Andrea Haefner	Faculty of Water Resources, National University of Laos
144	Nguyen Hong Toan	Independent consultant
145	Sinsamout Ounboundisane	FISHBIO Laos
146	Nguyen Thanh Tin	Private
147	Ning Li Yong	University of Sydney
148	Phairin Sohsai	
149	Linh Nguyen	GIZ
150	Phuangphan Phukham	Radio Free Asia
151	Phaisythong Chandara	Vientiane Times
152	Khamnoy	Lao Economic Daily Newspaper
153	Souliyo	Vientiane Mai Newspaper
154	Phuong Nguyen Ngoc	Office of Vietnam Television in Laos

155	Doan Ngoc Tien	Vietnam Television (VTV)
156	Pham Van Kien	Vietnam News Agency
157	Bui Xuan Tu	Vietnam News Agency
158	Chu My Binh	Voice of Vietnam (VOV)
159	Nguyen Canh Thanh	Voice of Vietnam (VOV)
160	Pham Bang Giang	The People
161	Tran Xuan Son	The People
162	Singkham Yengtavanh	KPL News
163	Ms Somvang Ouanlasy	Pathet Lao Newspaper
164	Mr Bountom Sihakhot	Pasason Newspaper
165	Mingkeo Chanthavongsy	Lao National TV
166	Ko Sisouvanh	Lao National TV
167	Sendao Sengthavy	Lao National TV
168	Mr Salermxay Khanasa	Socio-Economic Newspaper
169	Nadeem Samnakay	Australian Water Partnership
170	Dr. Pham Tuan Phan	MRCS
171	Dr. Naruepon Sukumasavin	MRCS
172	Dr. An Pich Hatda	MRCS
173	Mr. Bounlap Phethany	MRCS
174	Dr. Truong Hong Tien	MRCS
175	Dr. Anoulak Kittikhoun	MRCS
176	Mr. Santi Baran	MRCS
177	Dr. Thim Ly	MRCS
178	Dr. So Nam	MRCS
179	Dr. Paradis Someth	MRCS
180	Ms. Thi Thanh Yen Ton Nu	MRCS
181	Ms. Le Thi Huong Lien	MRCS
182	Ms. Souridahak Sakonhninhom	MRCS
183	Ms. Duong Hai Nhu	MRCS
184	Ms. Nguyen Thi Ngoc Minh	MRCS
185	Mr. Voradeth Phonekeo	MRCS
186	Dr. Sokhem Pech	MRCS
187	Dr. Piriya Uraiwong	MRCS
188	Mr. Nadeem Samnakay	MRCS
189	Ms. Praivan Limpanboon	MRCS
190	Mr. Suthy Heng	MRCS
191	Ms. Sophiny Prang	MRCS
192	Mr. Anouvong Manivong	MRCS
193	Ms. Silisakhone Keophilalay	MRCS
194	Ms. Varaphone Silaphet	MRCS
195	Ms. Malinya Phetsikhiaw	MRCS
196	Ms. Latdaphone Phouthavong	MRCS

Annex 3. Participant satisfaction survey

At the end of the Forum, an evaluation survey was distributed to assess the level of satisfaction of the participants. The survey response rate is as high as the 1st Forum at 52%. Below are the key results from the respondents:

Respondent profiles

The survey was filled out by 44% of respondents from NMCS and governmental agencies; 12,5% from the private sector and 32% from civil society including NGOs and academia. No participants from the media filled out the form.

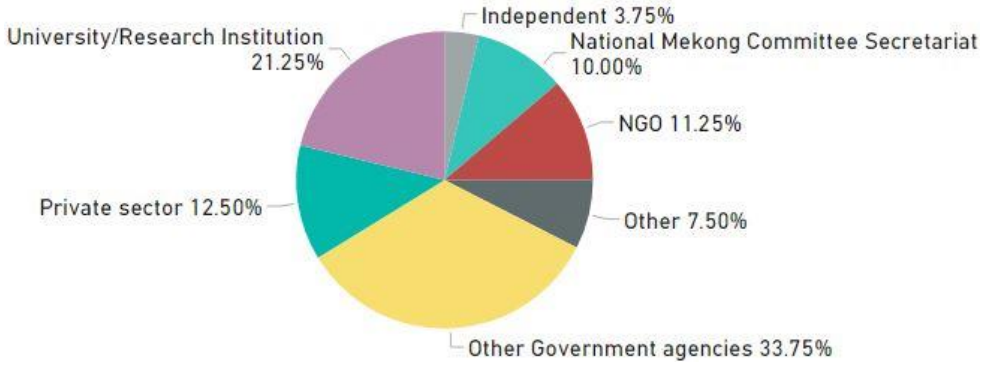


Figure 2: Type of organisation of survey respondents

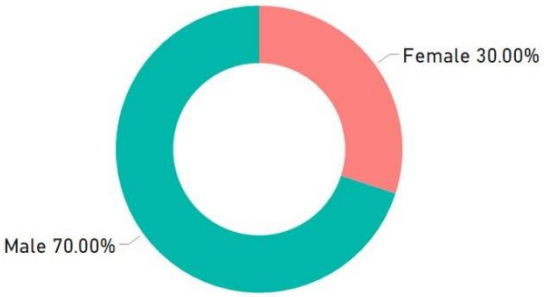
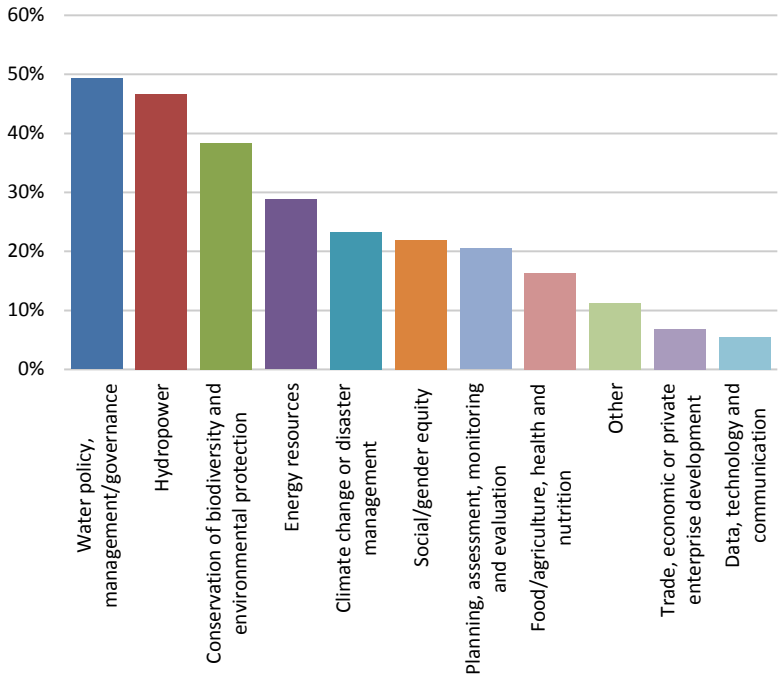


Figure 3: Survey respondents by gender

Compared to the first Forum, there are is a 6% increase in female respondents (30%) but still as many (70%) is male respondents. Almost 50% of respondents work in the hydropower sector.



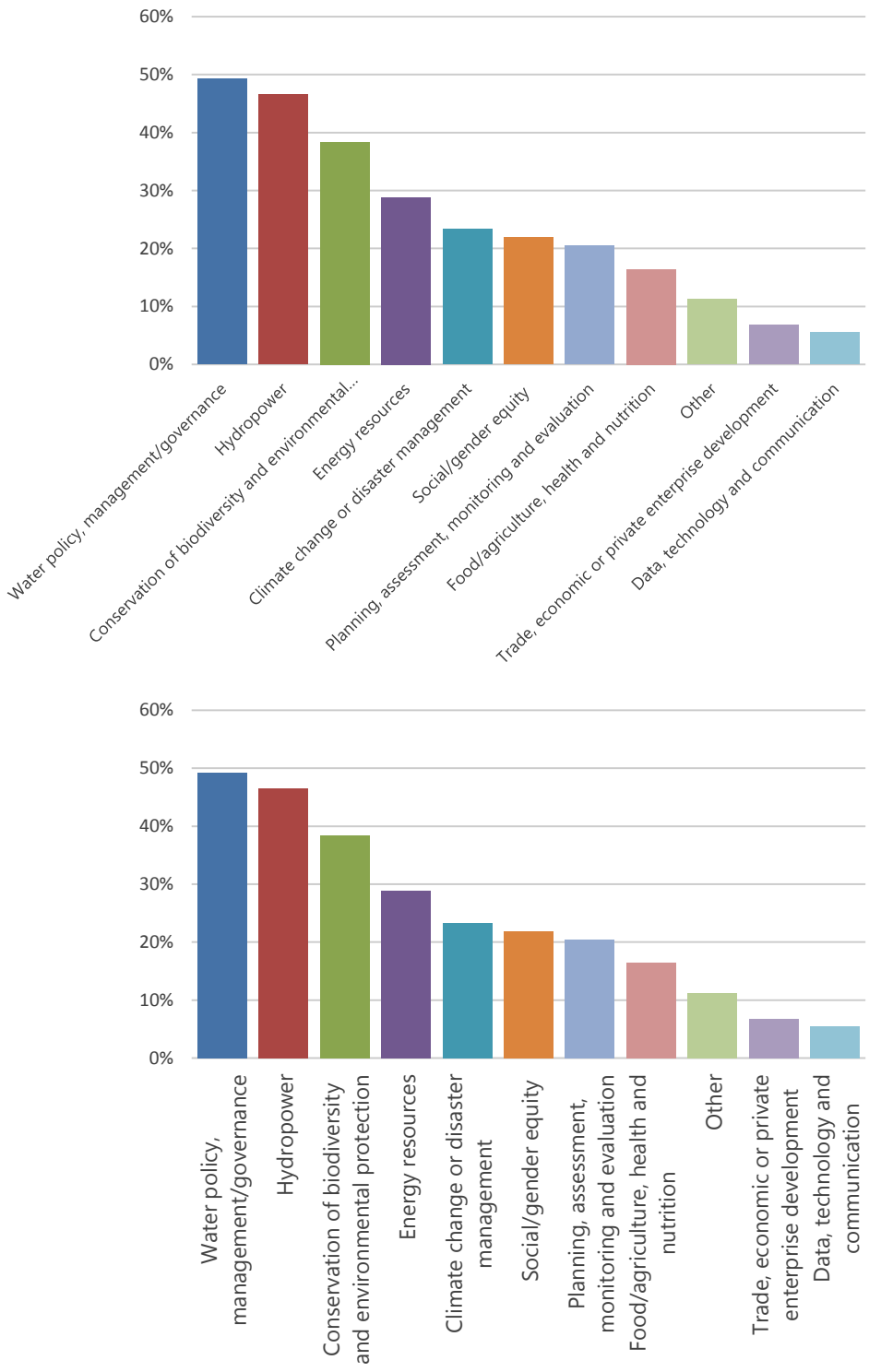
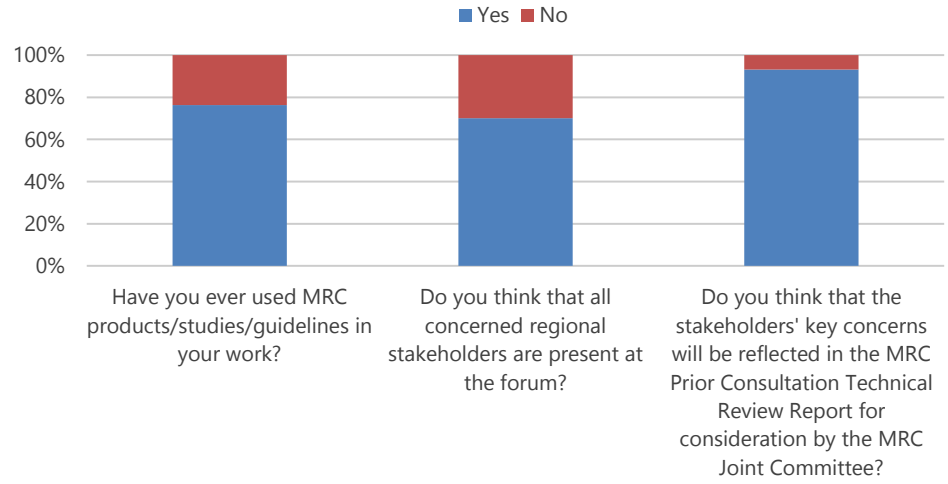


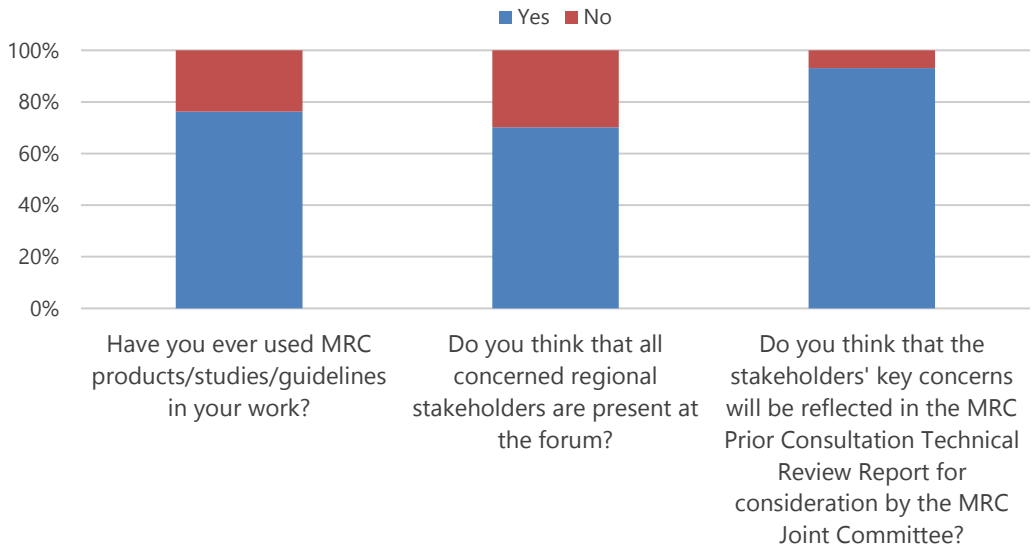
Figure 4: What issues do you currently work on?

Overall assessment and uptake of MRC products

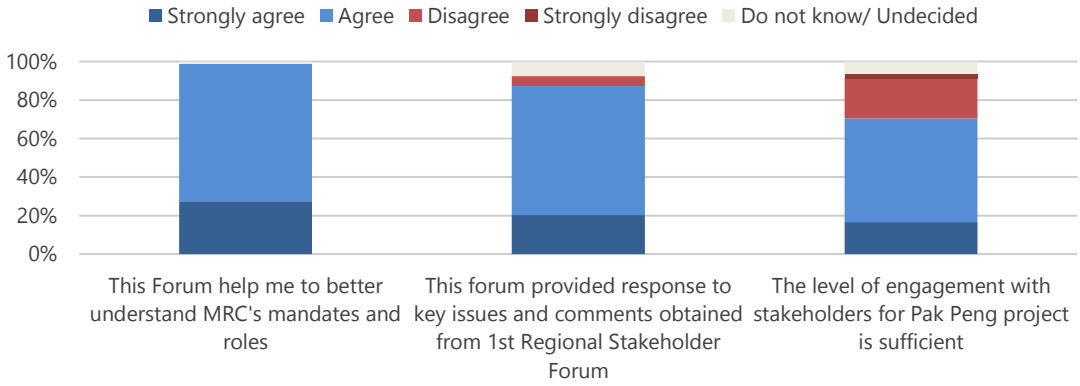
There is a very positive assessment of respondents on the overall outcome of the Regional Forum. There is still room for improvement when 29% of respondents wish to have more engagement with stakeholders for the Pak Beng project:

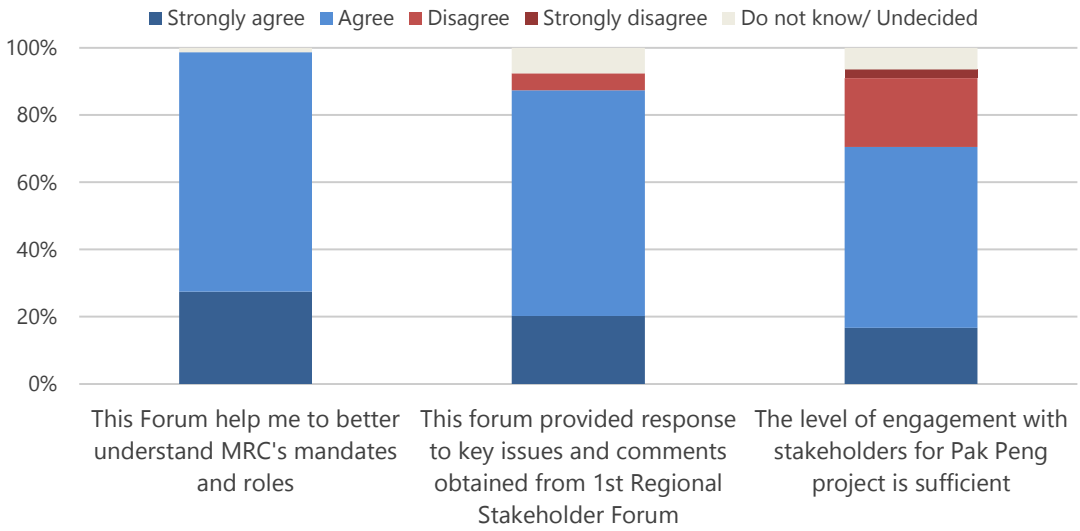
- 93% of respondents think that the stakeholders' key concerns will be reflected in the MRC Prior Consultation Technical Review Report for consideration by the MRC Joint Committee
- 98% of respondents agreed that they better understand MRC mandates and roles (an increase of 4% compared to the 1st Forum)
- 70% of respondents think that all concerned regional stakeholders are present at the forum





- With regards to the uptake of MRC products, there is a high percentage of respondents with 76% mentioning that they have used these products in their work
- 87% agreed that the forum provided response to key issues and comments obtained from 1st Regional Stakeholder Forum
- 71% agreed that the level of engagement with stakeholders for Pak Beng is sufficient





Assessment of respondents' satisfaction with quality of technical review summary

- 73% of respondents rated that the quality of Hydrology and hydraulics technical review summary is good and very good. 22% rated it acceptable.
- 68% of respondents rated that the quality of Sediment transport and river morphology technical review summary is good and very good. 21% rated it acceptable.
- 64% of respondents rated that the quality of navigation review summary is good and very good. 31% rated it acceptable.
- 63% of respondents rated that the quality of fisheries review summary is good and very good. 21% rated it acceptable.
- 62% of respondents rated that the quality of environment review summary is good and very good. 26% rated it acceptable
- 60% of respondents rated that the quality of dam safety review summary is good and very good. 29% rated it acceptable.
- 54% of respondents rated that the quality of socio-economic issues review summary is good and very good. 36% rated it acceptable.

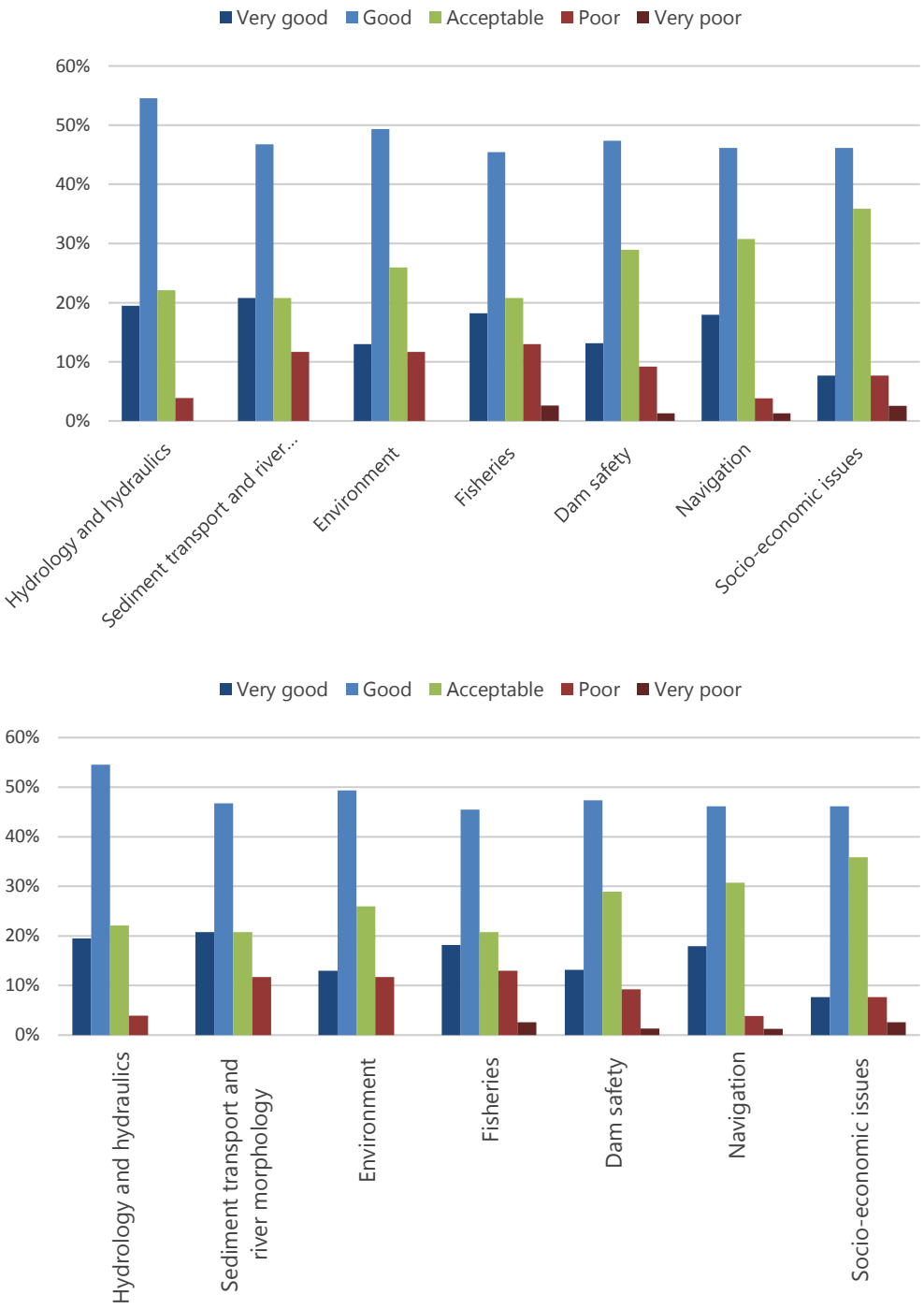
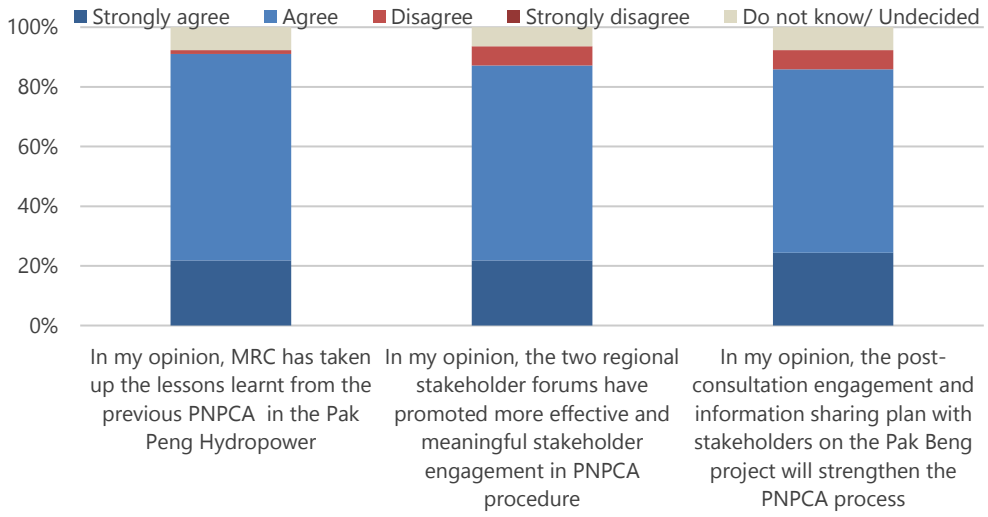


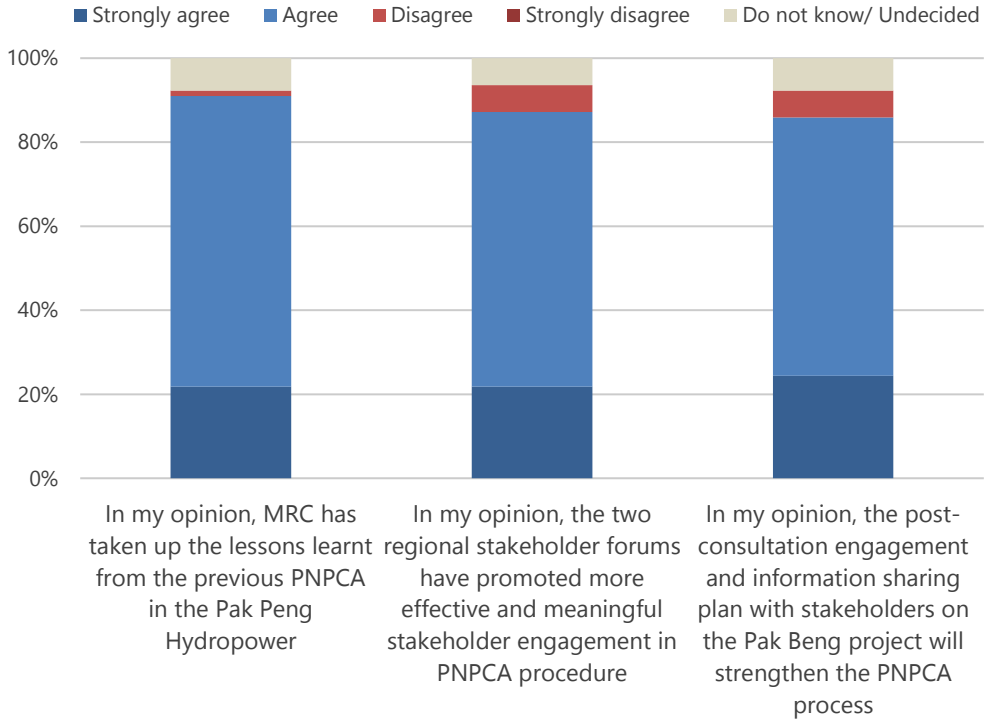
Figure 5: Rating of the Technical Review Report by category

Assessment of respondents' satisfaction with PNPCA for Pak Beng

- 91% of respondents agreed that MRC has taken up the lessons learnt from the previous PNPCA for the Pak Beng hydropower project (this has increased 9% compared to 1st Forum)
- 87% of respondents agreed that the two regional stakeholder fora have promoted more effective and meaningful stakeholder engagement in PNPCA procedure

- 86% of respondents agreed that the post-consultation engagement and information sharing plan with stakeholders on the Pak Beng project will strengthen the PNPCA process

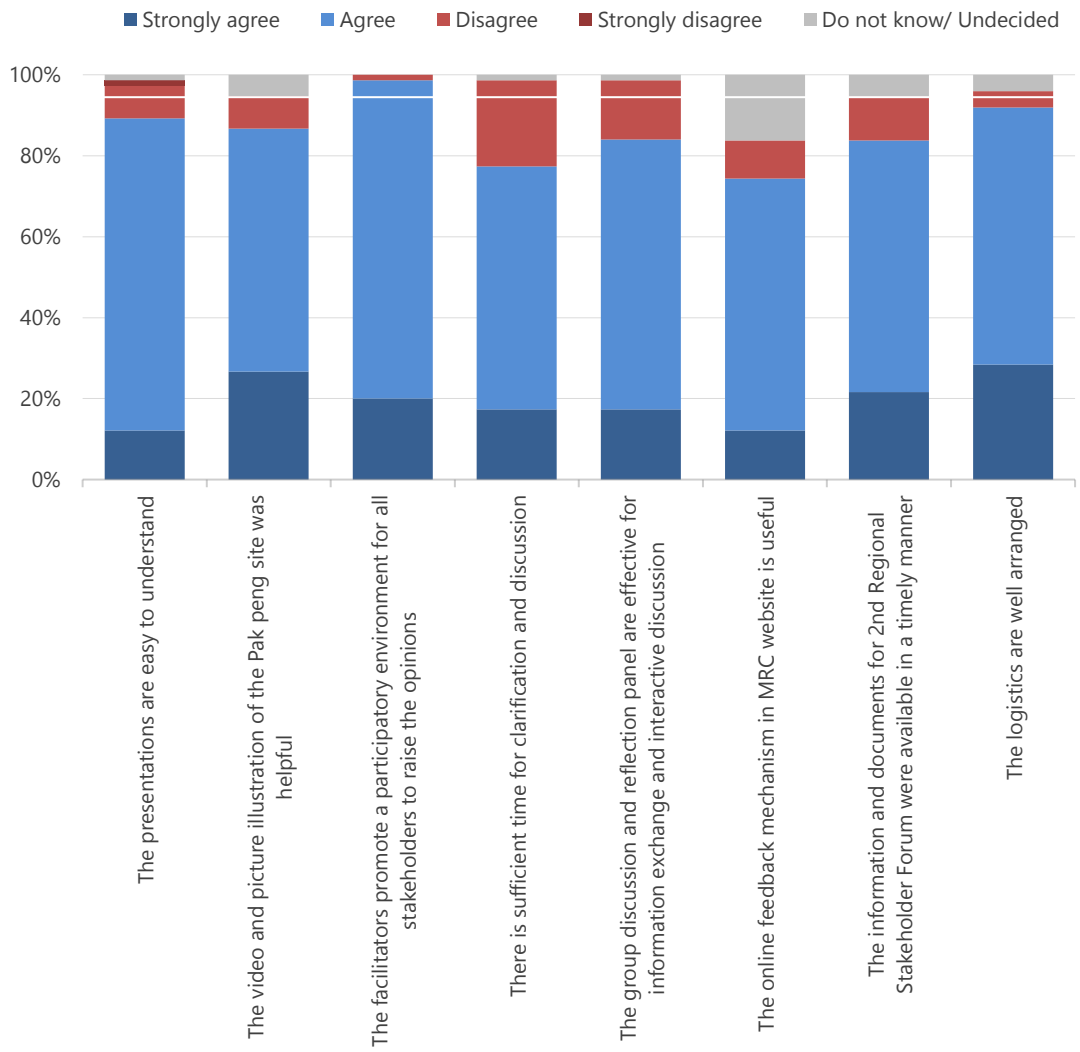




Assessment of respondents' satisfaction with the facilitation and arrangement of the Forum

- 87% of respondents agreed that the use of video of the Pak Beng site was helpful
- 99% of respondents agreed that the Forum provides a participatory environment for all stakeholders to raise opinions (7% increase compared to the 1st Forum)

- 84% of respondents agreed that the information and documents for 2nd Regional Stakeholder Forum were available in a timely manner (3% increase compared to 1st Forum)
- 84% of respondents agreed that the group discussion and reflection panel are effective for information exchange and interactive discussion



Annex 4. How participants view of PNPCA Process and Pak Beng prior consultation?

Bellows are outcomes of interviews on process of PNPCA and engagement with MRC by the MRCS Communication team at the Forum:

"The current prior consultation for Pak Beng is an advanced step compared to the two previous prior consultations, for the Xayaburi and Don Sahong hydropower projects. The two Regional Stakeholder Forums allow opportunities for not only contributions from the government institutions like national Mekong river committees but also views and opinions from CSOs, NGOs and research institutes. The MRC has opportunities to listen to various

reflections from different stakeholders and then consolidate them into the Technical Review Report (TRR) to submit to the MRC Joint Committee (JC). This is positive and considerable progress has been made. However, the result of the consultation is based a lot on decisions of the MRC JC.

To better the prior consultation, my advice is, in addition to channels linking with NMCs and governmental agencies, the MRCS should also initiate a network for CSOs and NGOs who share interest in the Mekong River to meet and share their initiatives and suggestions. There should be a mechanism to consult on the burning issues with these stakeholders. I trust that this practice would be very efficient to contribute to the sustainable development of the Mekong River."

Representative of a local NGO

"We are encouraged by the improvements in the consultation process for Pak Beng, the quality of the draft MRC Technical Review Report, and the quality of the public deliberations thus far, and will continue to support and participate in the PNPCA process.

For the Pak Beng project, PNPCA documents have been available on the web and drafts distributed before each of the two Regional Stakeholder Forums. This is an improvement on the earlier PNPCA processes.

The 'prior consultation' for Pak Beng has enabled relevant parties to actively participate, question more, and learn more. Regional stakeholders have been provided better opportunities to talk to the MRC and government representatives, as well as the project developers, Datang. We hope the company is studying carefully the MRC Technical Review Report, open to learning from the experiences of the Xayaburi project developers, and making good use of the extensive MRC river research over past decades to address shortfalls in the current dam design that were discussed in the most recent stakeholder forum."

Representative of one of MRC Development Partners

"PNPCA is essential for all hydropower projects on the Mekong River. Thanks to the PNPCA process, we have an opportunity to discuss and bring all concerns to put on the table. We can ask questions to the dam developers and also the country proposing the project. We also can raise our concerns based on our perspectives and assessment reports, especially the impact from dam development.

However, we expected a field trip to Pak Beng to have a complete view about the project, to see both positive and negative sides. We also wanted to see what happens in reality in the resettlement villages. We want community representatives to participate in regional events because CSOs and NGOs cannot represent them fully. It would be good for the people to discuss and present their own voice at the events.

At the national level, the consultations need to include the communities so that their voice can be included in the national proposals. In order to better the consultations at the national level then documents need to be translated into the national/local languages so stakeholders at the national level can get sufficient information to fully and effectively participate in the consultation process.

PNPCA provides a platform for stakeholders to consult and discuss, but the result of PNPCA should be included into the action, into planning and into the mechanism to respond to all concerns."

Representative of NGO Network

"We cooperate with Lao Government and fully respect PNPCA as one of the procedures that Lao Government is committed to the 1995 Agreement. We follow the procedure and try to mitigate negative impacts of the project to Member Countries."

Representative of Developer

"PNPCA is a platform that allows us to share and discuss the project development with all stakeholders including MRC countries. Under the 1995 Agreement the PNPCA is a rule that everyone needs to follow. We will take into account relevant comments and consider to improve the design accordingly."

Representative of Lao Government

"Compared to Don Sahong and Xayaburi, I found the regional stakeholder forum for Pak Beng PNPCA was better in a number of ways. The project documents were released earlier, information including presentation released prior to the forums, and there were better efforts to document and respond to questions and comments, including how they feed the next steps of the Prior Consultation Process. For Xayaburi for example, project documents such as the EIA were not made publicly available during the Prior Consultation process, which limited meaningful discussions.

Regionally, the PNPCA for the Pak Beng Hydropower Project has provided a few more opportunities for stakeholder engagement and a clearer communication of the roadmap, while there was no regional forum for Xayaburi, and in the case of Don Sahong, the regional forum was held relatively late in the process. The 2nd Regional Stakeholder Forum also opened more opportunities for discussion, including small group discussions on thematic areas, as well as through reflection panels.

However, there are things to be improved. Earlier release of information and making participants aware of their availability would help promote more informed participation. It would be also good if key information or summaries were available in Mekong languages before, during and after the forum to ensure a wider dissemination of information. Also having developer participate in the reflection panel, as there were a number of questions and comments, which were addressed to them but remained unanswered.

To date, results or discussions of national consultations for Pak Beng have not yet been released. It is strongly recommended MRC work with and support National Mekong Committees to increase opportunities for and improve community participation and engagement, particularly through national and sub-national consultations. Also, more regular and timely communication on the Prior Consultation process and how lessons are being applied could help increase broader understanding of how the MRC is trying to address some of the gaps and different interpretations that have been identified with respect to the PNPCA."

Representative of International NGO

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