

Guidelines for Transboundary Environmental Impact Assessment in the Lower Mekong Basin¹

(Working Document)²

Vientiane, 25 September 2018

¹ Cambodia has also proposed a minor change on the scope of the Guidelines that it will be applied for development projects on the Mekong mainstream, thus proposing its title as "TbEIA Technical Guidelines for existing and proposed development on the Lower Mekong mainstream".

² Lao PDR and Thailand suggested that the current draft Guidelines should be considered as a "Working Document" that can be further amended based on experience gained from its practical application.

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LIST OF ABBREVIATIONS

DSF Decision Support Framework

EIA Environmental Impact Assessment
EMP Environmental Management Plan
IHA International Hydropower Association
IQQM Integrated Quantity and Quality Model

JEM Joint Environment Monitoring of Mekong Mainstream Hydropower Projects

LMB Lower Mekong Basin MC Member Country

MRC Mekong River Commission

MRCS Mekong River Commission Secretariat
NGO Non-Governmental Organisation
NMC National Mekong Committee

NMCS National Mekong Committee Secretariat

PDIES Procedures for Data and Information Exchange and Sharing
PMFM Procedures for Maintenance of Flows on the Mainstream
PNPCA Procedure for Notification, Prior Consultation and Agreement

PWQ Procedures for Water Quality

PWUM Procedures for Water Use Monitoring

TbEIA Transboundary Environmental Impact Assessment

ToR Terms of Reference UN United Nations

UNECE United Nations Economic Commission for Europe

INTRODUCTION

In recognition of the co-operation stipulated within the 1995 Mekong Agreement to promote the sustainable development, utilisation, conservation and management of the Mekong River Basin water and related resources, in response to the MRC Council Resolution of 1998, and the Joint Committee's decision of 2003, the MRC Member Countries hereby decide to implement a Guidelines for conducting Transboundary Environmental Impact Assessment (TbEIA) where needed. The Guidelines is designed as a flexible document with perspective of its further elaboration based on gradually accumulated experience of Member Countries with TbEIA application.

This TbEIA Guidelines is based on draft TbEIA Framework that was elaborated from 2004 to 2010 through a series of workshops, seminars, national and regional consultations and pilot studies and further developed following the advice generated through legal and institutional reviews undertaken in 2015-2017 and a series of national and regional consultations in 2016-2017 that involved Government officials from the four Member Countries.

It is developed with particular regard to the valuable experience gained from the MRC supported consultations on Xayaburi Dam Project, Don Sahong Hydropower Project, Pak Beng Hydropower Project, and namely on lessons learnt from the Srepok river and Se San river case study commissioned by MRC. The approach adopted in this Guidelines is also taking note of transboundary EIA practice observed in other regional contexts, namely the experience gained by signatories and members states of the UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention).

This TbEIA Guidelines is designed as a supporting tool applicable with respect to the different national EIA legislation systems in Member Countries. In recognition of already agreed MRC mechanisms, this TbEIA Guidelines builds on and supplements the MRC Procedure for Notification, Prior Consultation and Agreement (PNPCA), and uses and takes into account other MRC Procedures such as (i) Procedures for Data and Information Exchange and Sharing (PDIES), (ii) Procedures for Water Use Monitoring (PWUM), (iii) Procedures for Maintenance of Flows on the Mainstream (PMFM), and (iv) Procedures for Water Quality (PWQ) in addressing potential transboundary environmental impacts of development projects. Further positive synergy is also expected with the currently evolving Joint Environment Monitoring of Mekong Mainstream Hydropower Projects (JEM). In addition, the evolving policies and practices on public participation of the MRC are also recognised and the MRC Member Countries are encouraged to apply them in EIA processes addressed by this Guidelines. Principles and certain provisions of this Guidelines (e.g. related to post-project environmental monitoring) are also applicable in the context of already existing development projects and MRC Member Countries are invited to apply relevant elements of the TbEIA Guidelines in their management of all relevant projects with potential transboundary impacts.

DEFINITION OF TERMS

"Member Country(ies)" means the signatory country(ies) to the 1995 Mekong Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin.

"Country of Origin" means the Member Country under whose jurisdiction a proposed project is intended to take place.

"Potentially Affected Country(ies)" means the Member Country(ies) likely to be affected by potential transboundary environmental impact of a proposed project.

"Concerned Member Countries" mean either the Country of Origin or the Potentially Affected Country(ies) or both.

"Proponent" means a physical or legal person who proposes a project for consideration or acceptance or physical or legal person who implements or operates such project. For practical purposes, the Proponent is always identified in accordance with the national EIA legislation. In the post-EIA follow up, i.e. for purpose of conducting monitoring or any additional mitigation measures once the project is implemented, the role of the Proponent shall be attributed to entity owning/operating the project. When the ownership is transferred (e.g. from a private developer to the state after the expiration of a concession period), so are the obligations and commitments included in the project as a result of previously conducted EIA.

"Proposed project" means any project or activity proposed by the Proponent in the Country of Origin which is subject to national environmental impact assessment (EIA) of the Country of Origin.

"Environmental Impact Assessment (EIA)" means a national procedure for assessing the likely impacts on biophysical, social and economic aspects of a proposed project.

"EIA Report" means an EIA Report prepared in compliance with national EIA legislation in the Country of Origin including for a project where potential transboundary environmental impacts were considered, and where the EIA Report is a subject of transboundary consultation.

"PNCPA Procedure" (or Mekong River Commission [MRC] "Procedures for Notification, Prior Consultation and Agreement") as per definitions laid down in the Chapter II of the 1995 Mekong Agreement means the prior consultation process, in which the countries exchange information and/or will jointly review any proposed development project relevant to the sustainable development, management and conservation of the water and related resources of the Mekong River Basin, with an aim to reach a consensus on whether or not it should proceed, and if so, under what conditions. Prior consultation is neither a right to veto the use nor a unilateral right to use water by any riparian without taking into consideration other riparian's rights. For the purpose of this TbEIA Guidelines both projects to be subject of notification and projects to be subject of prior consultation as per PNPCA are regarded as potentially falling into the scope of TbEIA Guidelines application.

"Transboundary environmental impact" means [significant] environmental impacts/changes originating within the territory of one Member Country which potentially affect other Member Countries. The environmental impacts/changes include effects on Hydrology and hydraulic regime; River morphology and sediment; Aquatic ecology and biodiversity; Water quality; and Socio-economic

consequence such as impacts on cultural heritage, access to natural resources and to people's livelihoods depending on the Mekong River basin (e.g. Fisheries). Both negative and positive environmental impacts shall be acknowledged. The guidance to determine the significance of transboundary impacts is provided in Annex 2.

"Transboundary EIA (TbEIA)" means Environmental Impact Assessment (EIA) carried out in compliance with national EIA legislation in the Country of Origin for a project where potential transboundary environmental impacts were considered, and where the EIA Report is a subject of transboundary consultation.

"Public" means one or more natural or legal persons.

"Public Participation" means a process through which stakeholders gain influence and take part in decision making in the planning, implementation, monitoring and evaluation of development projects.³

"Stakeholder" means any person, group or institution that has an interest in a project. This includes both intended beneficiaries and intermediaries, those positively affected, and those involved and/or those who are generally excluded from the decision-making process.⁴

OBJECTIVE

The general objective of this TbEIA Guidelines is to support application of Objectives and Principles of Cooperation stated by the 1995 Mekong Agreement, namely Article 3. Protection of the Environment and Ecological Balance, Article 5. Reasonable and Equitable Utilisation, Article 6. Maintenance of Flows on the Mainstream, Article 7. Prevention and Cessation of Harmful Effects, and Article 8. State Responsibility for Damages.

Therefore, specific objectives of this Guidelines are:

- To support and reinforce implementation of relevant MRC procedures such as PNPCA, and make use of methodological and technical advice published by the MRC that concerns evaluation and management of environmental issues of common interest, and
- to support national EIA systems in application of Environmental Impact Assessment on projects with potential [significant] trans-boundary impacts.

The nature of this TbEIA Guidelines reflects the fact that economic development projects in the Lower Mekong Basin are already causing concern amongst the Member Countries about their potential transboundary environmental impacts. It aims to facilitate MRC cooperation and support the protection of the environment, natural resources, aquatic life and conditions, and the ecological balance of the Lower Mekong River Basin and prevention and cessation of

³ Adopted from the document *Public Participation in the Context of the MRC*, section 2.2 Defining Public Participation

⁴ Adopted from the document *Public Participation in the Context of the MRC*, section 2.2 Defining Public Participation

harmful effects resulting from development projects in accordance with the 1995 Mekong Agreement.

This TbEIA Guidelines aims to facilitate cooperation in conducting EIA for projects with potential transboundary environmental impacts, while respecting the differences among the EIA legislations in Member Countries and specifics of their national EIA systems. Application of provisions presented in this TbEIA Guidelines shall allow for a meaningful participation of all Concerned Member Countries in transboundary EIA without prior harmonizing their legislation and procedures to be mutually fully compatible. In this manner the practice and experience can grow, and that in turn will allow for further improvement of the TbEIA processes.

PRINCIPLES

In conformity with the provisions of the Mekong Agreement the key principles on which this TbEIA Guidelines is based are the followings:

- State sovereignty the decision-making authority of a Member Country to approve development of a project on its territory that has been a subject of a TbEIA is respected. In its practical application, the principle is that the TbEIA process follows the national EIA legislation of the Member Country within which the proposed project is to be located.
- Polluter-pays principle Costs of negative environmental and social impacts of a
 project shall be borne by the one responsible for development of the project.
 Application of this principle in the context of (Tb)EIA is that all burden of costs
 associated with conducting the (Tb)EIA shall be primarily born by the Proponent
 (Developer).
- The Good Faith and Good Neighbourliness principle the Concerned Member Countries will apply EIA to ensure prevention and minimization of negative environmental impacts on their neighbours, while they will refrain from using the TbEIA to obstruct development plans of the neighbouring Member Countries.
- Reciprocity principle States that favours, benefits, or penalties that are granted by
 one state to the citizens or legal entities of another, should be returned in kind. In the
 context of TbEIA, Member Countries will adopt responsive and helpful approach
 allowing effective and mutually beneficial transboundary consultations.

SCOPE

1. Each Member Country is encouraged to ensure that national EIA processes for projects that fall into the Areas of Cooperation pursuant to Article 1 of the 1995 Mekong

Agreement and have a capacity to cause a [significant⁵] negative impact on the Protection of the Environment and Ecological Balance (pursuant to Article 3 of the Mekong Agreement) or to affect Reasonable and Equitable Utilization (pursuant to Article 5 of the Mekong Agreement) will take into consideration their potential transboundary environmental impacts.

As indicating in the Section Introduction, this Guidelines is designed to support for PNPCA process, which is mainly relevant to proposed projects on the Mekong mainstream. In addition, based on neighbourliness principle, the Guidelines is also applicable for proposed projects on tributaries if the Country of Origin during the planning process would see [significant] transboundary impacts and wish to conduct the impact assessment.

- 2. For the purpose of this TbEIA Guidelines the following categories⁶ of projects are relevant, i.e. falling within the scope of 1995 Mekong Agreement as defined in the paragraph 1 above:
 - (a) Hydropower projects;
 - (b) Irrigation schemes;
 - (c) Ports, riverworks, and navigation projects;
 - (d) Industrial & mining projects; and
 - (e) [Aquaculture projects].
- 3. In case a proposed project falling into the scope of 1995 Mekong Agreement (as indicated above) does not require a national EIA within the Country of Origin, the Country of Origin is advised to inform the other Member Countries in accordance with the PNPCA procedure.

⁵ The term "significant" is understood as excluding mere inconveniences or minor disturbances Member Countries are expected to tolerate from one another, in conformity with the principle of good neighborliness. Such understanding is established in relevant context e.g. by the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (see e.g. discussion of the term on the Convention's website, http://www.unwatercoursesconvention.org/faqs/).

⁶ National EIA system Screening criteria of the Country of Origin (i.e. size, capacity, location, etc. of the project) apply for determining whether or not any project undertake the EIA. Need for TbEIA is determined through further consultative steps described in this Guidelines. No additional technical Screening criteria specific for TbEIA are proposed.

Figure 1: Scope of Application of TbEIA Guidelines

Does the project belong to group relevant to the Mekong Agreement

i.e.:

- (a) Hydropower projects;
- (b) Irrigation schemes;
- (c) Ports, riverworks and navigation projects;
- (d) Industrial & mining projects;
- (e) [Aquaculture projects]



This Guidelines does not apply



Does the project require an EIA within the Country of Origin?



Country of Origin informs other Member Countries in accordance with the PNPCA procedure.



The EIA authority within the Country of Origin instructs Proponent to consider potential transboundary impacts.

TBEIA PROCESS

The overall scheme of the TbEIA process consisting of steps described in this section is illustrated by the flowchart included in Annex 1.

Identification of potential transboundary environmental impacts and the need for TbEIA

4. Applying the principle of "Good Faith", each Country of Origin is recommended to encourage the Proponents of the projects specified in Paragraph 2 to identify potential transboundary environmental impacts as early as possible in order to allow for their proper consideration during the planning of the respective project and the EIA process.

TbEIA Initiation and Early consultations

- 5. When the Proponent so requests, the Country of Origin can inform the Potentially Affected Country(ies) by a TbEIA Initiation letter and invite to consultations on identification of transboundary environmental impacts that should be assessed.
- 6. The Potentially Affected Country(ies) should respond within 30 days, acknowledging the receipt of the TbEIA Initiation letter and indicating whether or not it wants to participate in the early consultations.

Determination of the scope of a transboundary assessment

7. The process of EIA scoping is conducted by the Proponent in line with the national EIA regulation in the Country of Origin. Resulting documentation (e.g. Scoping report, ToR for the EIA study, Initial EIA, Initial Environmental Examination) should take into account results of the Early consultations among Concerned Member Countries. It shall propose whether or not any [significant] transboundary impacts are expected and how they will be addressed in the EIA Report.

Preparation of the EIA Report

- 8. The EIA Report is prepared by the Proponent (or by a Consultant appointed by the Proponent) in compliance with the EIA requirements in the Country of Origin. Within the purview established during the EIA scoping phase, it shall describe potential transboundary environmental impacts.
- 9. When doing so, the Proponent can ask the Country of Origin to request the Potentially Affected Country to:
 - a. provide the Proponent with access to information on the relevant aspects of the potentially affected environment on its territory;
 - b. allow the Proponent to conduct surveys on its territory; and
 - c. assist the Proponent in organizing consultations with potentially affected public and relevant authorities on its territory as long as they are properly planned and conducted within reasonable timeframes.

Transboundary consultation of the EIA Report

- 10. When the (draft) EIA Report submitted in the Country of Origin indicates that the proposed project may have transboundary environmental impacts or when Concerned Member Country (ies) so requests (e.g. during participation in Early consultations), the Country of Origin forwards the (draft) EIA Report to Potentially Affected Country(ies) at the same time as it makes it available to its own public.
- 11. The formal transboundary consultations on the proposed project and its accompanying (draft) EIA Report between the Concerned Member Countries will be undertaken using the mechanism established by the PNPCA procedure.
- 12. The Potentially Affected Country provides comments (including comments obtained during stakeholders' consultations and public participation events) on the (draft) EIA Report to the Country of Origin in a consolidated manner according to the timeframe agreed during the Early consultations, or through the response mechanism of the PNPCA.

Public participation, dissemination of information and consultation within the Potentially Affected Country

- 13. National consultations on the (draft) EIA Report in the Potentially Affected Country should be organized in accordance with applicable provisions specified in its national regulatory framework.
- 14. The (draft) EIA Report obtained from the Country of Origin can be disseminated together with other relevant information to stakeholders including potentially affected communities in accordance with standard practice for EIA consultation in the Potentially Affected Country.
- 15. The consultations on the (draft) EIA Report in Concerned Member Countries should include *Public participation*, i.e. a process through which key stakeholders gain influence and take part in decision making in the planning, implementation, monitoring and evaluation of a given project⁷.
- 16. The results of the national consultation process on the (draft) EIA Report should be provided to the Country of Origin in a consolidated manner according to the agreed schedule, so that the EIA-responsible authority can take them into account before approving the EIA Report.

EIA approval and Decision-making

17. The final approval of the EIA Report is granted by the EIA-responsible authority in the Country of Origin according to the applicable national procedure while considering the comments from the Potentially Affected Country(ies).

⁷ Public Participation in the Context of the MRC, section 2.2 Defining Public Participation

- 18. The Country of Origin will make the decision on whether to implement the proposed project, by considering the views raised through formal transboundary consultations conducted in accordance with the Paragraphs 10 12.
- 19. The Country of Origin is advised to ensure that the Potentially Affected Countries are provided with the final decision and a statement containing:
 - a) Responses to the comments received through the formal transboundary consultations;
 - b) Explanation how were reasonable alternatives and practical measures for preventing, minimizing or offsetting/mitigating the adverse transboundary environmental impacts considered in the final decision on the proposed project;
 - c) Description of measures for monitoring and management (including acknowledgement and adaptation) of any residual transboundary environmental impacts and risks.

EIA results implementation and monitoring

- 20. The Country of Origin should ensure that Proponent complies with the conditions stipulated in the decision on the proposed project and:
 - i) Implements the agreed measures for preventing, minimizing or offsetting/mitigating the adverse transboundary environmental impacts;
 - ii) Conducts monitoring in order to identify any unforeseen adverse transboundary environmental impact at an early stage and to be able to undertake appropriate remedial action at its expense; and
 - iii) Results of monitoring undertaken shall be available to the Concerned Member Countries
- 21. The results of monitoring undertaken in accordance in Paragraph 20 shall be made available to the Potentially Affected Country(ies) in formats and time intervals mutually agreed between the Concerned Member Country(ies).
- 22. If any Potentially Affected Country regards the arrangements for monitoring as insufficient, it is advised to inform the concerned Member Country(ies). The concerned Member Country(ies) might then consult and reach consensus on necessary measures to improve the monitoring. At the request of concerned Member Country(ies), such consultation can be facilitated by the MRC Secretariat.
- 23. If as a result of the monitoring, or based on its own investigations, any Potentially Affected Country has reasonable grounds for concluding that there is [significant] transboundary environmental impact, it is advised to inform the concerned Member Country(ies). The concerned Member Country(ies) should then immediately consult on measures that need to be taken to prevent, minimize or offset/mitigate the impact. Such measures may include an immediate ceasing of activities that cause [significant] adverse transboundary environmental impacts. At the request of concerned Member Country(ies). Such consultation can be facilitated by the MRC Secretariat.

Costs of Transboundary EIA

- 24. The costs associated with the assessment of the transboundary environmental impacts and implementation of measures for their prevention, minimizing or offsetting/mitigation as well as costs associated with monitoring and management of transboundary environmental impacts will be borne by the Proponent.
- 25. The costs related to consultations will be covered by the Proponent based on the agreement between the Proponent and Concerned Member Countries reached on case-by-case basis.

TECHNICAL IMPLEMENTATION OF TBEIA

A technical guidance is provided in this section through comments and suggestions for practical implementation of procedural steps outlined in the TbEIA Process section above, separately from the point of view of the Country of Origin, Proponent, and Potentially Affected Country. The overall scheme of the TbEIA process consisting of steps described in this section is illustrated by the flowchart included in Annex 1. The role of the MRC structures is supporting and can change over time; therefore, it is described also in separate section 8.

Identification of potential transboundary environmental impacts and the need for TbEIA (TbEIA "Screening")

Country of Origin

- 26. The EIA-responsible authority should consider the following:
 - 1. Is the proposed project falling within the scope of 1995 Mekong Agreement, i.e. does it belong to one of the following categories:
 - (a) Hydropower projects;
 - (b) Irrigation schemes;
 - (c) Ports, riverworks, and navigation projects;
 - (d) Industrial & mining projects;
 - (e) [Aquaculture projects]

And

- 2. Is the project due to its location, nature and scale likely to cause impact on the Protection of the Environment and Ecological Balance or to affect Reasonable and Equitable Utilisation of the Mekong river?
- 27. If a specific proposed project falling in one of the categories listed above does not require an EIA within the Country of Origin, the Country of Origin will endeavour to inform the other Member Countries in accordance with the PNPCA procedure. The concerned Member Countries may then decide to develop a separate arrangement to address any potential transboundary environmental impacts.

- 28. If a proposed project falling within one of the categories listed above does require an EIA in the Country of Origin, the EIA-responsible authority within the Country of Origin should instruct the Proponent (as early as possible, ideally during the screening or scoping phase) to consider potential transboundary impacts and request information from the Proponent on proposed approach to transboundary consultations.
- 29. Identification of potential transboundary environmental impacts can be assisted within help of an Indicative Checklist of Potential Transboundary Impacts of Specific Projects (see Annex 2) and shall be supported by the expert capacity of the Proponent (i.e. EIA consultant contracted by the Proponent).

Proponent

- 30. The Proponent assists the EIA-responsible authority(ies) of the Country of Origin in determination if the project qualifies for the application of the MRC TbEIA Guidelines. It is recommended to open this question as early as possible, when permitting requirements are first being discussed between the project Proponent and relevant authorities, and applicability of the national EIA legislative on a given project is established.
- 31. The Proponent must be ready to provide as early as possible the following information to the EIA-responsible authority:
 - a brief description of the project;
 - its potential environmental impacts in normal operating conditions;
 - its potential environmental impacts in a worst-case scenario;
 - the type of transboundary environmental impacts possible;
 - potential stakeholders affected (including stakeholders in the Potentially Affected Country(ies); and
 - proposal for consultations and data gathering activities to be conducted in Potentially Affected Country(ies).

Potentially Affected Country

32. Whereas this Guidelines does not envisage any role for the Potentially Affected Country before it is formally informed and invited for Early consultations, it is acknowledged that information on preparation of large investment projects can be available informally. Any Concerned Member Country can therefore adopt pro-active approach and preliminary request to be consulted in due time when the EIA process in the Country of Origin is initiated.

TbEIA Initiation and Early consultations

Country of Origin

33. The initiation of the TbEIA is driven primarily by the Proponent's project preparation steps (such as feasibility studies and preliminary analyses) during which first information about potential transboundary impacts are acquired. The EIA-responsible authority can in cooperation with the Proponent formal TbEIA Initiation letter to notify the Potentially Affected Country(ies) during the 'Scoping' stage of the EIA. The TbEIA Initiation letter is

delivered through the NMCS in Country of Origin and via the MRCS to the NMCS in Concerned Member Countries.

- 34. The TbEIA Initiation letter comprises the information obtained from the project Proponent and shall include:
 - (a) Information on the proposed project, including any available information on its possible transboundary impact;
 - (b) Information on the nature of the possible decision and expected timing of the EIA process; and
 - (c) Proposal for Early consultation to establish EIA scope and to agree on practical aspects of fact-finding steps to allow for transboundary EIA analyses.
 - A sample TbEIA Initiation letter is included as Annex 3.

Proponent

- 35. Proponent is encouraged to assist drafting the TbEIA Initiation letter, including the summary of project information, expected transboundary impacts, and proposal for Early consultations, for the convenience of the Country of Origin's EIA-responsible authority.
- 36. Proponent participates in the Early consultation in order to:
 - Present the proposed project's details and expected transboundary impacts (or absence of it);
 - Present preliminary proposal for scope of EIA analyses, including analyses addressing
 potential transboundary impacts. Receive feedback and note concerns expressed by
 the Potentially Affected Country; and
 - Discuss with relevant authorities of the Potentially Affected Country the practical steps for conducting analysis (e.g. provision of existing data, surveys, sampling, and consultation with potentially affected local communities) on its territory.

Potentially Affected Country

- 37. The Potentially Affected Country acknowledges the receipt of the TbEIA Initiation letter within 30 days and indicates interest to participate in, and availability for the Early consultations.
- 38. If the Potential Affected Country choose to participate in the EIA process, the response should be sent as a formal letter and contain the following information:
 - Acknowledgement of the intention to participate in the EIA (see Annex 4 for template);
 - A summary of readily available information on relevant topics in the Potentially Affected Country (e.g. protected areas, or sensitive ecosystems that might be affected by the proposed project);
 - Information on the national EIA public consultation process in the Potentially Affected Country, including contacts of statutory consultees (if any);
 - Language of documents;
 - comments on proposed timing of the EIA process; and

- Specifying type of information of most interest (e.g. Mekong mainstream water flow alteration)
- 39. The Potentially Affected Country can choose not to participate in the EIA process, and in that case, it is recommended to respond with a formal letter, which indicates that it does not wish to participate. The Affected Country can, however, requests a copy of the draft and/or the final EIA Report or other materials for information.

Further recommendations for organization of Early consultations

- 40. National Mekong Committee Secretariats in Concerned Member Countries can serve as focal points for the TbEIA related communication. The NMCS in the Country of Origin ensures transmission of the TbEIA Initiation letter through the MRCS to NMCS in the Potentially Affected Country(ies), which in turn serve as focal points to distribute it to the EIA-responsible authority and/or other addressees (line agencies etc.). The same mechanism is used for transmitting the response of the Potentially Affected Country to the Country of Origin. The MRC Secretariat functions as a communication nexus so that a track record of the TbEIA process is kept consistently by the MRCS for the future use of Member Countries.
- 41. The purpose of Early consultations is to assist the EIA scoping process through discussion on potentially [significant] transboundary environmental impacts and on the practical arrangements for the conducting fact findings and analytical works necessary for addressing transboundary impacts in the EIA.
- 42. The Early consultations can be organized as a one or several meetings as soon as possible after the initiation of the EIA process in the Country of Origin. Participation of the EIA-responsible authorities of both Country of Origin and Potentially Affected Country(ies), as well as the Proponent is considered necessary. Additional participants (e.g. other relevant authorities and stakeholders) can be invited. The MRC Secretariat can, if requested, facilitate and support Early consultations.
- 43. It is recommended that the Early consultations are documented with a brief memo indicating mutual understanding in the following issues:
 - General time-frame of the EIA process;
 - What key environmental (and social) issues considered of key importance and what territorial scope is relevant for the Potentially Affected Country;
 - What types of relevant information and data are available in the Potentially Affected Country and on what conditions can they be used by the Proponent (EIA Consultant);
 - What fact-finding activities (e.g. surveys, sampling, and consultations with potentially affected local communities) does the Proponent envisage to be carried out on the territory of the Potentially Affected Country and how the relevant domestic authorities will be informed and participate; and
 - What are the standards for public consultation (public participation) in the EIA process in the Potentially Affected Country (e.g. number and format of obligatory public hearings on EIA Report).

Determination of the scope of a transboundary assessment (TbEIA Scoping)

Country of Origin

44. The EIA-responsible authority proceeds according to the national EIA legislation, while taking into account the preliminary analysis prepared by the Proponent (e.g. Scoping Report), and the results of the Early consultations. If formal EIA Scoping Decision or ToR for EIA Report is issued, it can contain requirement to address relevant transboundary impacts within the EIA process.

Proponent

45. While preparing the preliminary (i.e. scoping) analyses, the Proponent shall make effort to investigate potential transboundary impacts of the proposed project and identify potentially affected territory regardless of the administrative borders.

Potentially Affected Country

46. The process of EIA scoping is conducted by the Proponent in line with the national EIA regulation in the Country of Origin. However, the opinions, concerns and information shared by the Potentially Affected Country during the Early consultations are taken into consideration by the EIA-responsible authority in the Country of Origin when preparing the ToR for the EIA study or similar act concluding the scoping phase of the EIA.

Further recommendations for determination of the scope of a transboundary assessment

47. The general purpose of the scoping phase of an EIA is to identify potential environmental impacts that shall be further addressed in the EIA Report, including identification of likely affected territories. However, there are no universally accepted and applicable quantitative standards for determination of the [significance] of transboundary environmental impacts and the national EIA legislations of the Member Countries vary with regards to EIA requirements according to list, size, magnitude, nature and location of proposed projects.

In general, there are three main factors that can be taken into account to preliminary estimate the [significance] of transboundary environmental impacts of a development projects⁸. These include:

- Size: proposed projects/activities which are in large scale;
- Location: proposed projects/activities located in or close to sensitive areas of the Mekong mainstream and its major tributaries, and
- Effect: proposed projects/activities, which are complex and could generate adverse effects on water quality and quantity, flow regimes, river morphology, and biodiversity and which may have implications on human health and livelihoods, and aquatic ecosystems in other concerned Member Countries.

⁸ Adopted from the UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention): Appendix III: General criteria to assist in the determination of the environmental significance of activities not listed in Appendix I.

Further, it shall be considered for this purpose also the location of the proposed project. Namely if it is located close to an international frontier as well as more remote proposed activities, which could give rise to [significant] transboundary effects far remoted from the site of development.⁹

48. This Guidelines offers some suggestions for forming a judgement on whether and to what extent any proposed project may cause [significant] transboundary concerns. An initial understanding to potential risks and nature of impacts can be developed with the help of Indicative checklist of potential transboundary impacts of specific projects included in Annex 2 and through considering probability and likely extent of transboundary impacts (see Note on identification of "significant" transboundary impacts in Annex 2). However, in the transboundary context where individual parties (Concerned Member Countries or other non-state stakeholders) often hold different views and display different levels of sensitivity to various issues it is possible to reach agreement only through engaging in a deliberative process. The introduction of the Early consultations into the process of transboundary EIA serves to this purpose.

Preparation of the EIA Report

Country of Origin

- 49. The EIA Report is prepared by the Proponent (or by a Consultant appointed by the Proponent) in compliance with the EIA requirements in the Country of Origin. The EIA-responsible authority should advise to the Proponent how to include and present information related to the transboundary impacts in the EIA Report while complying with the structure and formal requirements of the applicable national regulation.
- 50. Regardless of the formal structure, the EIA Report should include the following elements:
 - Description of the purpose and nature of the proposed project;
 - Description of the baseline environment likely to be affected (including the environment on the potentially affected territory of Concerned Member Country);
 - Description of the anticipated [significant] transboundary environmental impacts (or explicit justified conclusion that no [significant] transboundary impacts are expected);
 - Description of reasonable alternatives to the proposed project (including a "no action" alternative);
 - Description of proposed mitigation measures;
 - An Environmental Management Plan and/or monitoring and management components;
 - Record of sufficient opportunities for public participation, including the content of comments or responses received and how the assessment addresses those comments or why they are not addressed; and
 - Acknowledgement of who prepared the environmental assessment.

⁹ Adopted from the UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention): Appendix III: General criteria to assist in the determination of the environmental significance of activities not listed in Appendix I.

It is acknowledged that individual Member Countries' national legislations do not contain provisions requiring including information on transboundary impacts in the EIA Report, however, this shall not be understood as an implicit restriction on including such information in the EIA Report (at minimum in the form of an Annex).

Proponent

- 51. The conducting of the analyses relevant to the assessment and preparing of the EIA Report is entirely the responsibility of the Proponent. Typically, a specialized consultant is commissioned to act on behalf of the Proponent in all aspects related to the EIA process, namely to advance EIA analyses and related consultations, and to draft the EIA Report in compliance with the applicable regulation of the Country of Origin.
- 52. While designing, conducting and presenting the analyses of the transboundary impacts the Proponent ensures that applied methodology reflects and make use as appropriate the technical and methodological resources available due to activities of the MRC, namely the following:
 - Decision Support Framework (DSF) Toolbox¹⁰, namely the Hydrological Model: Soil Water & Assessment Tool (SWAT), Basin Simulation Model: Integrated Quantity and Quality Model (IQQM), and Hydrodynamic Model ISIS.
 - Procedures for Water Quality (PWQ) i.e. to assess if the project can impact the "acceptable/good water quality" of the Mekong mainstream, and consider results of water quality monitoring and research conducted within the framework of the PWQ.
 - Procedures for Water Use Monitoring (PWUM) i.e. to assess if the project involves any use of water, which may (alone or in combination with other existing or planned projects) have a [significant] impact to the water quality or flows regime of the mainstream of the Mekong River System by any Member Country, and to take into account the results of MRC Water Use Monitoring System.
 - Procedures for the Maintenance of Flows on the Mainstream (PMFM) i.e. to assess if the project involves any diversions, storage releases, or other actions which may have a [significant] impact on the flows of the mainstream during the wet and dry seasons.
 - Guidelines for Management of The Mekong River Commission Hydrometeorological Network — i.e. to consider within the EIA analyses employment of the information from the MRC Information System.

The Joint Environment Monitoring of Mekong Mainstream Hydropower Projects (JEM), which is currently being developed, shall be used to inform the EIA analysis, support MCs - jointly monitor and report transboundary environmental impacts during construction and operation, to inform mitigation and management, wherever appropriate to ensure that it is based on credible data and shared understanding of the environmental situation.

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¹⁰ For details see http://portal.mrcmekong.org/mrctoolbox

For any EIA concerning hydropower project the following MRC resources shall be considered and a compliance of the project with following MRC Guidelines¹¹ shall be investigated:

- ISH 0306 Study: Development of Guidelines for Hydropower Environmental Impact Mitigation and Risk Management in the Lower Mekong Mainstream and Tributaries. Vol. 1-3. e.g. to apply within the EIA relevant advice presented in the section: MANUAL Key Hydropower Risks, Impacts and Vulnerabilities and General Mitigation Options for Lower Mekong.
- Guidelines for the evaluation of Hydropower and Multi-purpose project portfolios

 e.g. to understand and acknowledge within the EIA if/how the Sustainable
 Hydropower Planning Support Tool was employed during the hydropower project
 planning, and if any project alternatives are considered, and how environmental
 and social criteria have influenced the project rationale and/or its design.
- Guiding Considerations on Transboundary Monitoring for LMB Hydropower Planning & Management – i.e. the EIA shall assess if the project-related analyses use relevant environmental data (e.g. in terms of selected parameters, monitoring methodology, locations and timing of data collection, etc.), and that the proposed monitoring system covers all relevant topics such as hydrology, sediments & geomorphology, water quality, aquatic ecology, fisheries, and socioeconomic conditions.

Extended list of applicable MRC resources is presented in the Annex 8.

- 53. The (draft) EIA Report shall describe all potentially [significant] transboundary environmental impacts, their character, likelihood, and significance in an appropriate manner (following the same logic as in case of impacts that are limited to the territory of the Country of Origin, i.e. including indication if the potential transboundary environmental impacts are positive or negative, direct or indirect, cumulative, synergistic, etc.).
- 54. In description of proposed measures for the prevention, minimization, mitigation/offsetting, monitoring and management of the potential negative impacts the EIA Report shall indicate if and what of these measures are envisaged to be implemented on the territory of the Potentially Affected Country. It shall also clearly state what cooperation and actions of the authorities (or other stakeholders) of the Potentially Affected Country are necessary to ensure efficient implementation of these measures.
- 55. The description of the monitoring, mitigation measures and environmental management plan presented in the EIA Report shall clearly indicate the commitment (including commitment to finance implementation of the proposed measures) of the project Proponent.

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 $^{^{11}}$ For details and full list of MRC Guidelines and Procedures please visit MRC web page. http://www.mrcmekong.org/publications/policies-procedures-and-guidelines/?start=0

Proponent conducting an EIA in the MRC context provides the Review of the proposed Xayaburi Dam Project (MRCS, 2011), or Review of the EIA for the Pak Beng Hydropower Project (MRCS 2017) conducted under the PNPCA.

Potentially Affected Country

- 57. In order to support the TbEIA process and development of the EIA Report any Potentially Affected Country is recommended to:
 - a. Provide the Proponent with access to information on the relevant aspects of the potentially affected environment on its territory;
 - b. allow the Proponent to conduct surveys on its territory; and
 - c. assist the Proponent in organizing consultations with potentially affected public and relevant authorities on its territory as long as they are properly planned and conducted within reasonable timeframes.

Transboundary consultation of the EIA Report (regional consultations through PNPCA)

Country of Origin

- 58. Upon receipt of the (draft) EIA Report from the Proponent, the EIA-responsible authority forwards the (draft) EIA Report through the NMC and MRC Secretariat to NMCS in the Potentially Affected Country(ies) at the same time when making it available to its own public.
- 59. After the national consultations on the EIA Report in the Potentially Affected Countries (see further below) are completed, the EIA-responsible authority receives via MRCS and NMCS comments and opinion on the EIA Report from the Potentially Affected Country and takes them into consideration in its further actions in the same manner as comments from stakeholders in the Country of Origin.

Proponent

60. If required, the Proponent ensures translation of the original EIA Report in the languages specified during the Early consultations¹². If suitable, Proponent ensures also preparation of other support materials (presentations, maps, explanatory visuals etc.) to facilitate effective national consultations (including public participation) in the Potentially Affected Country (see further below).

Potentially Affected Country

- 61. The Potentially Affected Country(ies) is free to conduct a quality review exercise for the received EIA Report based on their own national practice, e.g.:
 - Establishing an independent panel selected from the environmental authority, and related key line agencies and recognized experts including affected people to review in order to avoid or reduce bias; and

¹² For the MRC consultations, English is typically regarded as satisfactory for developing key documents. According the international best EIA practice, the translation of the EIA Report to the languages of potentially affected nations is necessary for effective public participation.

• Carefully review and examine the project activities, transboundary environmental impacts and their proposed mitigation measures, and monitoring activities detailed in the EIA Report if reflected the local context and requirements.

It is for each Concerned Member Country to decide whether the national EIA-responsible authority will take the responsibility (in similar manner as for standard EIA) or NMCS will be given the leading role in conducting the EIA Report review.

In contrast to the case of reviewing an EIA Report prepared according to its own national legislation, the review conducted by the Potentially Affected Country(ies) in the context of TbEIA should focus on substantial and technical aspects of the EIA Report, and refrain from commenting on formal and procedural differences resulting from the EIA Report being prepared in compliance with legal framework and established practice of the Country of Origin.

62. The NMCS supports national consultations and public participation process and collects the obtained comments to the EIA Report (including comments from the EIA-responsible authority and other stakeholders). Within the agreed timeframe it sends consolidated opinion based on the review of the EIA Report, together with the comments collected during the national consultations and public participation process conducted on the Potentially Affected Country's territory, in a consolidated manner to the Country of Origin. The transmission is facilitated by the MRC Secretariat as per the PNPCA.

Further recommendations for Transboundary consultation of the EIA Report

- 63. National Mekong Committee Secretariats in Concerned Member Countries can serve as focal points for the TbEIA related communication. The NMCS in the Country of Origin transmits the EIA Report to via MRC Secretariat to the NMCS in the Potentially Affected Country(ies), which in turn distribute it to the EIA-responsible authority and/or other addressees (line agencies etc.). The same mechanism is used for transmitting the opinion and comments of the Potentially Affected Country to the Country of Origin.
- 64. The Transboundary consultations (regional consultations) are conducted as per PNPCA and can involve meetings of stakeholders from Concerned Member Countries facilitated by the MRC Secretariat. Such meeting(s) can allow for a transboundary discussion of comments and findings collected by NMCS during the national consultations on the EIA Report in Concerned Member Countries (see further below).

Public participation, dissemination of information and consultation within the Potentially Affected Country (national consultations through PNPCA)

Country of Origin

65. The public participation, dissemination of information and consultation within the Potentially Affected Country is taking place without direct involvement of any authorities of the Country of Origin, i.e. the authorities of the Country of Origin do not have any responsibility in this regard.

Proponent

- 66. Proponent is responsible for conducting public consultation process at the relevant territory of the Potentially Affected Country while meeting minimum standards for public participation required by the applicable regulations of the Potentially Affected country and taking into account the MRC document *Public Participation in the Context of the MRC*. Namely, the consultation conducted by the Proponent in the Potentially Affected Country shall include activities meeting the MRC definition for the Public Participation, which is defined as a process through which key stakeholders gain influence and take part in decision making, planning, implementation, monitoring and evaluation of the project. That, depending on context of the specific project, can mean ensuring effective opportunity for participation for potentially affected communities or disadvantaged groups with limited means and capacity to study technical EIA Report, etc.¹³
- 67. Proponent ensures representative participation of the EIA Report authors in the public participation events in the Potentially Affected Country.

Potentially Affected Country

- 68. The NMCS ensures that the proposed project documentation and the EIA Report obtained from the Country of Origin via MRCS are transmitted to the EIA-responsible authority and other concerned stakeholders as well as made available and accessible to the potentially affected people, interested parties and the general public for review, comments and follow-up. Information disclosure should take place based on the national established practice (as in case of any standard EIA process conducted according to the national legislation), and take into account the MRC Communications Strategy and Disclosure Policy.
- 69. The NMCS supports national consultations and public participation process organized by the Proponent and collects the comments to the EIA Report. The support include namely participation in the consultation events, providing advice on form, timing, and location of the public participation events, and advice on identification of key stakeholders.
- 70. It is advised that the EIA-responsible authority supports the national consultation process and participates in consultation events. It can conduct its own review of the EIA Report in order to form an opinion (see section "Transboundary consultation of the EIA Report" above), which along with the comments acquired through the public participation and national consultations will be in a consolidated manner transmitted by the NMCS via MRCS to the Country of Origin in accordance to PNPCA.

¹³ A useful example is the unique consultation requirements for ethnic communities that could be considered indigenous according to the criteria of the World Bank's policy on indigenous people (self-identification, unique languages, collective attachment to land/territory, distinct institutions). World Bank Operational Manual OP 4.10 - Indigenous Peoples.

Further recommendations for the public participation, dissemination of information and consultation within the Potentially Affected Country

- 71. Due to the complexity of the TbEIA, it is necessary to address the practical aspects for conducting a public participation process and related events in the territory of the Potentially Affected Country(ies) already during the Early consultations between Concerned Member Countries (see section TbEIA Initiation and Early consultation above). That includes agreement on number, scope and nature of public participation events, participation of national and local authorities, and civil society organizations in the Potentially Affected Country(ies), as well as organizational and financial aspects.
- 72. In principle, the Proponent of the project responsible for conducting the EIA is also responsible for covering all the costs for national and the transboundary consultations. In practice, it can be recommended that the Potentially Affected Country(ies) interested in maximizing the effectiveness of the public participation within its jurisdiction supports the process through in-kind contribution, e.g. providing space in public buildings for the meetings, and through covering costs associated with the participation of its official representatives (e.g. representatives of EIA-responsible authority and other relevant agencies) in the consultation events. Such costs-sharing arrangement shall be also understood as an incentive for the Potentially Affected Country to maximize efficiency of the consultation process and refrain from stipulating non-standard requirements entailing excessive costs to be borne by the project Proponent.

EIA approval and Decision-making

Country of Origin

- 73. The EIA-responsible authority of the Country of Origin treats the comments received through transboundary consultations (via MRCS and NMCS) in a standard manner along with comments from domestic stakeholders. The final approval of the EIA Report by the national EIA-responsible authority takes place in full compliance with the national legislation of the Country of Origin, after the Proponent responsible for conducting the EIA study fulfills all necessary steps of the EIA process, including adjusting or correcting the EIA Report based on received comments when required.
- 74. Decision on a proposed project is taken by a designated authority of the Country of Origin, and the TbEIA cannot in any way limit the national authority's decision-making freedom. The EIA aims at supplying the decision-making authority objective and scientifically sound information about potential risks and likely environmental consequences of a proposed project. Any decision-making authority (i.e. authority approving the project or granting a development permission) must (as per national legislation) take into due account and respond to the findings of the EIA Report. While doing so, the decision-making authority should ensure that commitments of the project Proponent related to the implementation of Environmental Management Plan, and Environmental Monitoring are included into the relevant permitting documents.

- 75. The Country of Origin is recommended to ensure that the Potentially Affected Countries consulted through the PNPCA process are provided with the final decision and a statement containing:
 - Responses to the comments received through the formal transboundary consultations;
 - Explanation how were reasonable alternatives and practical measures for preventing, minimizing or offsetting/mitigating the adverse transboundary environmental impacts considered in the final decision on the proposed project;
 - Description of measures for monitoring and management of any residual transboundary environmental impacts and risks.

Proponent

- 76. Proponent finalizes the EIA Report in line with the national legislation of the Country of Origin, while following instructions from the EIA-responsible authority. That may include substantial revisions or additions if the (transboundary) consultation process revealed such need.
- 77. Proponent prepares response to the consolidated comments received through the consultation process for the convenience of the national EIA-responsible authority as well as participates in drafting the statement accompanying the final decision for the convenience of the decision-making authority.

Potentially Affected Country

78. The Potentially Affected Country acknowledges receipt of the final decision on the project implementation and the accompanying statement related to the EIA conclusion. This marks a formal end of the TbEIA. Any potential further comments or disagreements shall be dealt with through other means, e.g. through a discussion on a political level.

EIA results, EMP implementation and monitoring

Country of Origin

- 79. The Country of Origin (i.e. permitting authority) should ensure that Proponent complies with the conditions stipulated in the decision on the proposed project and:
 - Implements the agreed measures for preventing, minimizing or offsetting/mitigating the adverse transboundary environmental impacts Environmental Management Plan (EMP), and
 - conducts monitoring in order to identify any unforeseen adverse transboundary environmental impact at an early stage and to be able to undertake appropriate remedial action at its expense.

This shall be achieved namely through consistent incorporation of the conditions related to the implementation of the EMP and monitoring into all subsequent planning and permitting procedures and their enforcement.

80. The designated authority (determined through transboundary consultation) of the Country of Origin shall regularly publish the monitoring results and ensure their transmission via MRCS and NMCs to all Concerned Member Countries.

Proponent

- 81. The requirements related to the content of the EMP may vary according across national jurisdictions, however, from substantive perspective it is important it contains following key components allowing Potentially Affected Countries to review and check for compliance and effectiveness during the project implementation.:
 - a. Mitigation measure work plan
 - b. Monitoring work plan
 - c. Public participation process of EMP formulation (if any)
 - d. Staffing and training work plan
 - e. Cost estimates for EMP implementation
 - f. Time schedule of EMP implementation and reporting
 - a. *Mitigation Measure Workplan:* provides detailed information on how mitigation measures will be implemented, where and who is going to implement including the timeframe for the implementation. It is proposed that detailed description of mitigation measures workplan in a table format is vitally important and useful to be able to see the whole linkages from project activities to timeframe for mitigating transboundary impacts (Annex 6).
 - b. Monitoring Workplan: detail the specific monitoring arrangements. The key activities of monitoring should present: project stages/project activities, direct/indirect and irreversible/irretrievable transboundary impacts, the proposed mitigation measures, indicators/targets to be met, the location to be measured, means or methods of measuring, time framework (frequency) of measuring, and responsibilities of measuring and monitoring. See Annex 7 for detailed information. After the proceeding of monitoring, proposed corrective measures need to be proposed to address the transboundary impacts which have not been fully addressed.
 - c. Public Participation Process for EMP Formulation: describes: (i) the process undertaken to involve the public in the EMP formulation, and (ii) summarizes the comments and feedback of affected people, community leaders, district, provincial and central officials, NGOs and other stakeholders and describes how comments and feedback have been taken into consideration during EPM formulation.
 - d. Staffing and Training Workplan: provide information on the composition of staff of the project for implementing the EMP. Where relevant draft the TOR for each staff member. The TOR would include the duty station, background of the project, objectives and expected outputs of the assignment, working principles, responsibilities and tasks, and types of reports to be delivered during the EMP implementation. The staffing work plan needs also to include the cost estimates of each member of the Environment

Management Section/Unit of the project. As far as training is concerned, it is needed to indicate and plan on what types of training (training courses) will be required for the staff to undertake to enhance their capacity in implementing the EMP.

- e. *Cost Estimates for EMP Implementation:* This section provides cost estimates for the entire EMP implementation which will include the cost for detailed planning, mitigation of impacts during project construction, operation and decommissioning, monitoring activities, staff and training cost requirements.
- f. Time Schedule of EMP Implementation and Reporting: this section provides the detailed timeframe for implementing EMP which includes detailed workplan preparation, mitigation measures, monitoring, staff and training cost requirements. The time schedule is needed to highlight the reporting requirements (monthly, quarterly, semi-annually, and annually) during the EMP implementation.
- 82. Monitoring system in the context of the TbEIA should be designed with particular attention to its capacity to record the development of transboundary environmental impacts of the proposed project, and to effectively assist to their management. Monitoring is undertaken during and after the project construction, during the project operation, and decommissioning. The results of monitoring are compared with corresponding environmental baseline data that was obtained before the start of the project construction, operation and decommissioning. For its effective execution it is crucial to ensure the transboundary cooperation between the responsible authorities allowing for exchange of data, and where relevant also agreeing on conditions for an access of experts commissioned by the Proponent (developer, operator) to the potentially affected territory to conduct sampling or other monitoring activities.

It is important that any proposed project-specific monitoring system is aligned with the general Joint Environment Monitoring of Mekong Mainstream Hydropower Projects (JEM, currently under development). Thus, any specific monitoring system proposed within the respective EIA shall refer to and take advantage of the JEM, as well as to acknowledge what additional project-specific monitoring measures are going to be put forth.

- 83. Monitoring results should be part of the normal progress report and conducted based on the monitoring workplan. An effective monitoring shall be able to provide answers to following simple questions (which can be also used for communication of the monitoring results to the public):
 - Does the project appear to be having any [significant] transboundary environmental impacts other than those anticipated for the construction, operation and decommissioning phases? And what measures have been taken to deal with these additional impacts?
 - Have all mitigation measures proposed for dealing with those transboundary environmental impacts been implemented? If so are they having the desired effect?
 - Are implemented measures effective in preventing any [significant] negative impacts and in enhancing of any [significant] positive impacts?

- Are the stakeholders and communities affected by the project generally satisfied with the management of transboundary environmental impacts?
- Have adequate provisions been made for monitoring of impacts caused by the project related activities?
- Are there any challenges or additional steps required? Who is responsible for their management? What tools and techniques are in use? How are the results disseminated?
- Who is responsible for implementing the remaining steps/measures and in what time frame they should be implemented?

Potentially Affected Country

- 84. The Potentially Affected Country is advised to provide necessary cooperation for implementation and execution of planned mitigation measures and monitoring on its territory. That might include allowing for access of the authorized personnel conducting sampling or observations, allowing for construction and maintenance of monitoring installations (e.g. water gauges).
- 85. If any Potentially Affected Country regards the arrangements for monitoring as insufficient, it is free to inform the concerned Member Country(ies) to initiate consultations on necessary measures to improve the monitoring. The MRC Secretariat can facilitate such consultations.
- 86. If as a result of the monitoring, or based on its own investigations, any Potentially Affected Country has reasonable grounds for concluding that there is transboundary environmental impact affecting or contradicting to objectives of the 1995 Mekong Agreement, it is advised to inform the MRC Secretariat and concerned Member Country(ies) to initiate consultations on measures that need to be taken to prevent, minimize or offset/mitigate the impact. Such measures may include an immediate ceasing of activities that cause [significant] adverse transboundary environmental impact.

Costs of Transboundary EIA

Country of Origin

87. Administrative costs of EIA-responsible authority and other authorities participating in TbEIA are covered in a standard manner as in any domestic EIA. Costs of participating in Early consultations and formal Transboundary consultations on EIA Report (travel costs, etc.) should be covered by the Proponent.

Proponent

88. Proponent covers all the costs associated with the conducting the EIA analyses, preparation of the EIA Report etc. within a scope defined by the EIA-responsible authority in the Country of Origin (granting the final EIA approval). That includes also all the costs associated with conducting analyses concerning impacts on the territory of Potentially Affected Country(ies), such as travel costs for experts, costs of consultations with local potentially affected communities, costs of obtaining relevant data, etc.

- 89. In principle, the Proponent of the project responsible for conducting the EIA is also responsible for covering all the costs for national and the transboundary consultations. In practice, some assistance of the Concerned Member Countries can be sought.
- 90. The post-EIA implementation of the measures planned for mitigation of potential negative impacts and environmental monitoring can be substantial and even capable of affecting the overall project economic viability. In general, the polluter-pays principle is a departing point for necessary case-by-case arrangement that must be concluded before the final decision on the project implementation is made. The Proponent and later the operator of a project shall bear the costs of adjusting the design, or the mode of operation of the project to ensure compliance with the Environmental Management Plan and operation of the monitoring.

Potentially Affected Country

- 91. Costs of participating in Early consultations and formal Transboundary consultations on EIA Report (travel costs, etc.) should be secured through agreement with the Proponent.
- 92. For the consultation events taking place on its the territory (namely public consultation and participation) can be recommended that the Potentially Affected Country(ies) interested in maximizing the effectiveness of the public participation within its jurisdiction supports the process through in-kind contribution, e.g. providing space in public buildings for the meetings, and through covering costs associated with the participation of its official representatives (e.g. representatives of EIA-responsible authority and other relevant agencies) in the consultation events. Such costs-sharing arrangement shall be also understood as an incentive for the Potentially Affected Country to maximize efficiency of the consultation process and refrain from stipulating non-standard requirements entailing excessive costs to be borne by the project Proponent.
- 93. Costs of an Independent review of the EIA Report if conducted as a part of the PNPCA process by the MRCS PNPCA Task Group and supporting Expert Group(s) shall be covered by the MRCS.
- 94. Covering the costs associated with an additional national review of the EIA Report (if conducted) shall be ensured by the Concerned Member Country from its own resources as it is clearly in its interest to evaluate thoroughly the EIA Report received from the Country of Origin. Seeking an external financial support for such exercise shall be recommended. MRC Secretariat shall provide assistance with such effort.

INSTITUTIONAL SUPPORT GUIDANCE

95. This TbEIA Guidelines is prepared with an assumption that MRC institutions and structures will support TbEIA processes in the LMB, however in the long-term perspective the TbEIA system shall be developed as a self-standing, based on capacities of Member Countries and independent of MRC resources. Therefore, the role of the MRC institutions specified

in this section shall be understand as supporting and facilitating, rather than primary driving and enabling.

- 96. The roles/functions/responsibilities of the NMCs are to:
 - Serve as a focal point for transmission of any TbEIA Initiation letters, Responses,
 EIA Reports among Concerned Member Countries;
 - Support national consultation on the EIA Report in Potentially Affected Country(es) and collect comments and opinions from consultation and public participation process and transmit results in a consolidated manner via MRCS to the Country of Origin;
 - Promote and actively encourage the implementation of this Guidelines, namely collaborate with related line agencies for the implementation of this Guidelines within their respective Member Countries;
 - Assist and participate in any consultations, dialogues and agreements under this Guidelines involving their respective Member Countries; and
 - Log, file and follow up on the progress of TbEIA Initiation, Responses, TbEIA
 process results and any subsequent monitoring results received or issued by their
 respective Member Countries.
- 97. The key task of the NMCs is to ensure that relevant authorities in charge of planning (permitting) activities and projects subject to EIA and authorities supervising EIA processes for proposed projects become aware of their role in the process of assessment of potential transboundary impacts and that they ensure that the project Proponent takes into account the potential need for an assessment of transboundary impacts within the EIA process as early as possible.
- 98. Within each Member Country an internal decision shall be made by the relevant authorities if the NMCs will be serving as a focal point for the transboundary communication related to the TbEIA, or other arrangement will be adopted (e.g. EIA-responsible authority will be addressing directly its counter-parts in other Member Countries). If agreed, the NMCs will be entrusted with transmission of all the TbEIA-related documents (TbEIA Initiation letter, response, invitations to consultations, EIA Report, comments to the EIA Report, final decision on implementation of the project and concluding EIA statement).
- 99. Lastly, NMCs will arrange transmission of monitoring results and will facilitate any consultations on potential deficiencies in the monitoring systems, on existence of [significant] transboundary environmental impact and on measures that need to be taken to prevent, minimize or offset/mitigate such impacts.
- 100. The roles/functions/responsibilities of the MRC Secretariat are to:
 - Facilitate consultations and resolution of disagreements among Concerned Member Countries when requested;
 - Provide, in an open and transparent manner, impartial technical advice to Member Countries and the Joint Committee on any element of the implementation of this Guidelines if requested to do so; In particular, the capacities of the MRCS PNPCA Task Group, and supporting Expert Group(s) shall

- be used to conduct independent review of the EIA Reports, which are subject of the TbEIA process;
- Assist Member Countries, when requested, in seeking sources of funds to support the implementation of this Guidelines, e.g. to cover costs of Regional consultations;
- Monitor and report to the Joint Committee the implementation of the TbEIA Guidelines and submit any proposal for change/amendment of the Guidelines to the Joint Committee for consideration or endorsement; and
- Update this Guidelines and provide support mechanisms and necessary training for the Member Countries to strengthen their capacity in the implementation of this Guidelines.
- 101. If a disagreement arises regarding the interpretation or implementation of Guidelines, this should be resolved in line with the provisions of the 1995 Mekong Agreement as stipulated in Article 34.

REVISION OF THE GUIDELINES

- 102. Each Member Country will report on annual basis to the MRC Secretariat and other Member Countries on its arrangements for implementation of this Guidelines into national regulatory and institutional frameworks and on experience with its practical application. The MRC Secretariat will facilitate exchange of experience with the application of this Guidelines.
- 103. The Guidance shall be treated as a flexible document that can be gradually amended and developed to reflect the accumulated experience and new aspirations of the Member Countries for advancing sustainable management and development in the Lower Mekong Region.

Country of Origin Potentially Affected Country Identification of need for TbEIA EIA authority encourages Proponent to consider potential for transboundary impacts (during screening and scoping) Proponent (EIA consultant contracted by Proponent) proposes the scope of analysis including transboundary assessment and if necessary proposes format and scope of consultations in Potentially Affected Country(ies) EIA authority prepares **TbEIA Initiation letter** based on inputs Response from Proponent and send to the Potentially Affected Country(ies) EIA authority acknowledge receipt and interest in participation in TbEIA within 30 days. **Early consultations** (Proponent + EIA authorities of Concerned Countries + other relevant agencies) (E.g. scope of analyses, access of experts, provision of data, number and format of public consultation events in the Potentially Affected Country, etc.) Determination of the scope of a transboundary assessment Proponent (EIA consultant contracted by Proponent) conducts scoping (e.g. preliminary assessment, Scoping Report) while taking into account also results of Early consultations EIA authority ensures that formal scoping conclusion (if applicable) reflects transboundary dimension as appropriate **Preparation of the EIA Report** Proponent (EIA consultant contracted by Proponent) conducts EIA Proponent (EIA consultant contracted by analyses and fact-finding consultations Proponent) conducts EIA analyses and Prepare EIA Report and submit it to the EIA authority fact-finding consultations

Transboundary/regional and national consultations on EIA Report (through PNPCA)

Note: Terms "Pre-PNPCA" and "Post-PNPCA" do not appear in the MRC documents, and are used here in a purely technical manner, to indicate steps/activities conducted before the initiation of the formal PNPCA process, and after its conclusion respectively.

ANNEX 2: INDICATIVE CHECKLIST OF POTENTIAL TRANSBOUNDARY IMPACTS OF SPECIFIC PROJECTS

		Potential Transboundary Impacts Potential Mitigation				
1. Hydropower Projects	Issues	Primary Impacts (Direct Impact)	Secondary Impacts (Indirect Impact)	Other (Indirect Impact)	Measures	
Project Design						
1. Project siting	Siting to critical fish habitats	Loss of land, soils and other assets			Providing replacement land, housing, infrastructure along with	
2. Dam site (too high)	Large volume of water storage during the retention period	Loss of critical fishery habitats	Reducing the ability of fish breeding	Fish resources reduced and food security issue	support services to fully restore the livelihoods, living standards and	
3. Reservoir storage capacity (too large)	Large storage of water compared to basin /river flow	Flow reduced in down stream	Inadequate water for navigation, agriculture production and use	Income reduced and poverty concern	services of the people affected Select the site where there	
		High fluctuation of water	Reduced water supplies downstream Increased river bank erosion/bed scouring	Impacts on quality of life Impacts on navigation due to change in river bed Loss of land and related infrastructure	is no critical fishery habitats Consider and design dam with appropriate height to minimize the impacts Optimize/limit the capacity compared to river flow and basin capacity	
Project Construction						
Dam and access road construction	Removing top soil along or close to the river	Soil erosion	Water quality issue in the downstream	Human health issue and poverty concern	Use of appropriate erosion control during the construction, avoid removing top soil along or close to the river	
2. Dam site and facilities construction	1. Barriers to fish migration	- Reduce the ability for fish migration and breeding	- Fish resources reduced	- Fish catch, income and food security reduced, poverty issue	- Appropriate designing of fish passage/ladders	

	Barriers to navigation activities 3. Limitation to nutrient	- Income from trade and tourism reduced - Loss of fertile soil	- National/sub-national GDP reduced - Reduce agricultural	- Lack of fund to support poverty reduction- Poverty concern	- Put in place ship locks to facilitate navigation activities
	transport	- Reduced aquatic food chain	production - Reduce fish productivity		Proper design of dams to flush out sediments to downstream
	4. Sediment trapping	- Water quality issues and algae bloom acceleration	Health issue	- Poverty concern	Dredging where
	5. Involuntary resettlement of people	Livelihood concern	Income losses Income reduced	- Poverty concern	appropriate
					Provide faire compensation to affected people
				- Poverty concern	Provision of adequate accommodation and recreation facilities, the
			Influx of medium to large scale labor forces on the local economy, society and environment		control of camp followers, and the workers codes of conduct
3. Electric transmission lines and corridors	The lines and corridors pass through flora and fauna areas	Loss of terrestrial ecology	Biodiversity reduced	Recreation/tourism affected	Careful selection of corridors to minimize/control the loss
Project Operation					
1.Reservoir impoundment	Biomass degradation	Water quality issue	Human, aquatic and animal health issue	Aquatic resources reduced and poverty concern	Clear all vegetation before reservoir filling.
	Reduce downstream flow	Water shortage issue	Water supply constraints		

	Upstream area flooded	Loss of arable land and forest areas	Income and food security issues	livelih	ic ecosystem disturbed, and ood impacts ty issue	Consideration of MRC minimum flow procedures. Consideration of dam operation alternatives
2. Powerhouse operation	Irregular water release 2. Sediment trapping	- Floods in downstream - Fluctuations of water flow/level in downstream Change in degree of sedimentation and seawater influx (in estuary) River channel/bank erosion Reduced sediment deposition (in estuary)	- Loss of arable land, houses and cultural heritage site - Fish habitat and breeding damages River bank erosion/bed scouring Soil fertility reduced	- Fish - Loss island	of arable land houses and s and change in socio-	- Proper dam design, appropriate rules for dam operation, and fare compensation mechanism Appropriate rules for dam operation Proper means of river bank protection. Regularly release sediment to the downstream
Project decommissioning	Not practiced					
2. Irrigation Schemes	Issues		Potential Transboundary Im	pacts		Potential Mitigation
(Activities)		Primary Impacts	Secondary Impacts		Other indirect Impacts	Measures
Project Design Very large scale of Irrigation channel	High volume of water use	Water quantity reduced in the downstream	Inadequate water for crop production and navigation in dry season in downstream.	n in the poverty concerns		Avoid designing of very large scale of irrigation schemes
Project Construction						
1. Access road and channel construction	Soil erosion	Water quality issues	Human health impacts		Poverty concern	Avoid construction of the unnecessary access road,

					and construct appropriate
					channel
2. Land clearing in sensitive	Soil and river bank erosion	Loss of land value and	Loss of income and increased	Poverty and quality of life	
areas		associated	expenditure on infrastructure	issue	Avoid or limit use of land
		property/infrastructure			near sensitive areas
Project Operation					
1. Water use	Diversion of water for	Reduced river flows in	Land use, water supply issue in	Reduce production and	Use of MRC Procedures for
	irrigated areas	downstream	downstream.	poverty concern	Water Use Monitoring
	Fluctuations in water in	Navigation activity and	Income reduced	Poverty issue	
	downstream	saline intrusion issue		·	
2. Use of chemical fertilizers	Leaching and runoff of nutrients to downstream	proliferation of aquatic weeds, and eutrophication,	Water quality issue	Health issue	Proper rules and control of the use of fertilizers
Teremzers	nutrients to downstream	weeds, and eatropmeation,			the use of fertilizers
3. Use of pesticides	Leaching and runoff of	Water quality issue	Human health issue	Poverty issue	Introduction of rules on
	pesticides to downstream				use of pesticides, and limit
					pesticides that have high
					toxic substances
Project decommissioning	Nutrient and pollutants				Post project monitoring
	release				and clean up
3. Port and riverworks	Issues	Potential Transboundary	Potential Mitigation Measures	Issues	Potential Transboundary
(Activities)		Impacts			Impacts
Project design					
1. Port siting	Damage of fish habitats	Fish resources reduced	Reduce fish productivity	Less fish catch and income	Siting the port to where is
	and breeding			reduced	far away from deep pools
	River bank protection large				
2. Design of riverworks	scale	Changes in hydrology and	River bank erosion/bed scouring	Loss of land and related	Consider use of proper
(significant changes from		loss of river bottom	increased	property/ infrastructure	river embankment
nature)	Erosion control structure				methods and inform other
		Use of improper structure	Increase river bank erosion		countries to be prepared in
		and materials	downstream		advance.
Project construction					
-	<u> </u>	<u> </u>			1

1. Port construction	Port stretches into the river	- Changes of follow regime	- Increase river bank erosion - Loss of people productivity and	- Loss of land, houses and islands	- Minimum/limited structure stretched into the river
		- Local navigation and fishery interference	income	- Food security reduced, and poverty issue	
				- Quality of life issue	
2. Erosion control structure construction	Improper use of imported materials	River bank erosion/bed scouring increased	Loss of land and related property/infrastructure	Income and quality of life issue	Use of proper technology and material for construction
Project operation					
1. Navigation of vessels	Operation of vessel propellers Navigation close to the river bank and with high speed Inadequate management of waste from vessels	Erosion of island nearby and creation of new islands River bank erosion and affecting local boats Water contamination	Loss of land for cultivation Gradual loss of arable land and houses, damage local boats Destruction of river fishery/ecology	Food security issue and income decreased Insufficient land for cultivation and poverty issue	Proper select port site where is far away from islands Navigate on the middle of the river with speed limit. Set time for releasing vessels. Put in place appropriate solid waste management.
2. Port operation	Inadequate management of waste emission from port facilities (Oil spills, sewage release and solid waste disposal from port operation area)	Water contamination Water-related diseases	Human and aquatic health issue Destruction of port fishery/ecology	Poverty issue	Strong enforcement of laws and regulations Extraordinary attention to waste management from port facilities

Project decommissioning	Alteration of the water regime	Temporary sediment mobilization			Monitoring and rehabilitation of ecosystems
4. Navigation Projects	Issues	Pc	tential Transboundary Impacts		Potential Mitigation
(Activities)		Primary Impacts	Secondary Impacts	Other indirect Impacts	Measures
Project design					
1. River channelization	Dredging/large amount of spoil material	Improper disposal of dredging spoils (in private land and/or sensitive public areas, eg, national parks/forests)	Changes in hydrology and values of disposed lands	Loss of land value/ productivity	Limit amount of dredging spoils
			Wastes associated with the materials	Loss of tourist/recreational areas	Use of proper sites and methods of disposing the spoil materials
Project construction					
Navigation canal improvements	Rapids, shoals and reefs blasting	Increase water velocity in the river	River bank erosion	Loss of arable land and houses	Minimal remove of rapids, shoals and reefs as less as possible.
		Loss of fishery habitats and aquatic weeds and killing fish	Fish resources reduced, and loss of aquatic weeds	Reduce fish catch and income. Loss of local traditional food made from weeds	Avoid blasting rapids, shoals and reefs where fish habitats and aquatic weeds are critical
Dredging activity	Dredging	Loss of bottom habitat and changes of hydrology	Increase flow velocity in the river	River bank erosion/bed scouring increased	Invest in modern dredging techniques. Dredge during the low flow periods or non-critical periods.
Project operation					
1. Navigation of vessels	Navigation close to the river bank and with high speed	River bank erosion and affecting local boats	Gradual loss of arable land and houses, damage local boats	Insufficient land for cultivation and poverty issue	Navigate on the middle of the river with speed limit. Set time for releasing vessels.
2. Navigation facilities (incl. piers)		Limited supply of public services and increased pollution	Loss of land value/productivity	Income and quality of life issue	

	Use of public services and release of sewage and solid waste		Water-related diseases		Consider limited use of public services and pollution of the facilities
E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					D. I. I. Ladiel III
5. Industrial and Mining	Issues		tential Transboundary Impacts		Potential Mitigation
projects		Primary Impacts	Secondary Impacts	Other indirect Impacts	Measures
Project design					
Project siting	Siting to critical fish	Loss of critical fishery habitats	Reducing the ability of fish	Fish resources reduced and	Select the site where there
	habitats		breeding	food security issue	is no critical fishery
					habitats
	Siting near important	Loss or damage to resources	Loss of tourist /recreational	Poverty and quality of life	
	cultural/archeological sites		areas	issue	Careful site selection to
					avoid the damage
	Large area and capacity of				
2. Types, layout and size	production	Limited supply of public services	Loss of land value	Income and quality of life	
(incl. technology)		and increased pollution	/productivity	issue	Consider limited use of
					area/capacity and public
					services, with less pollution
Project construction					
1. Land clearing in sensitive	Construction in sensitive	Loss of biodiversity and land	Local/regional land and	Local community socio-	Consider limited area of
areas	areas (e.g., watersheds,	value	environmental degradation	economic conditions	clearing and in non-
	river banks, highly			worsen	sensitive areas
	populated, etc)				
	Induced pollution (incl.		Income and quality of life		
2. Pollution during	noise, vibration, waste,		issue		Limit and plan for proper
construction	etc.)	Nuisance and health issue			management of
					construction waste and
					pollution
Project operation					
1. Mineral production	- Extraction of minerals	- Changes in flow patterns	- River bank erosion/bed	- Loss of arable and houses	Avoid extraction of huge
	from or nearby the river		scouring		minerals in the river or
				- Poverty concern	close to the river
		- Water quality issue	- Health issue		
2. Mineral processing	Use of water	- Water quality issue	- Aquatic and human health	- Poverty concern and	Water use with
			issue	reduced aquatic life	appropriate treatment

					before releasing into the river
3. Mining/industrial town development	Storm water, solid waste disposal and sewage release	- Water quality issue	- Aquatic and human health issue	- Poverty concern and reduced aquatic life	Proper town planning and management
4. Industrial/mining production	Pollution from production e.g., noise, air, etc.) Improper management of hazardous materials	Human nuisance issue Water quality issue	Public health issue	ditto-	Consider use of technology and capacity to limit pollution impacts
Project decommissioning	Alteration of the water regime	Post project contamination	Impacts on fisheries Impacts on water quality		Site rehabilitation, tailings removal, water runoff management. Underground and surface water monitoring.
6. Aquaculture projects	Issues	P	otential Transboundary Impacts		Potential Mitigation
(Activities)		Primary Impacts	Secondary Impacts	Other indirect Impacts	Measures
Project design					
Pond siting	Siting close to river	Potential loss to fish habitats	Fish resources reduced	Food security issues and	Select the site where there
				poverty concern	is no critical fishery habitats
Project implementation				poverty concern	•
Project implementation Pond development	Conversion of natural habitats	Loss of wetland and fish habitats	Fish resources reduced	Food security issues and poverty concern	•
			Fish resources reduced	Food security issues and	Avoid conversion of important wetland to fish
Pond development			- Contamination of aquatic ecosystems - Human health issue	Food security issues and	Avoid conversion of important wetland to fish

Project decommissioning	Alteration of the water	Temporary sediment	Impacts on fisheries		Sediment control measures
	regime	mobilization	Impacts on water quality		during earth-works and
					bank modifications
7. Water extraction for	Issues	Po	tential Transboundary Impacts		Potential Mitigation
water supply (Activities)					Measures
Project design					
1. Weir or dam siting	Siting close to river	Potential loss to fish habitats	Fish resources reduced	Food security issues and	Select the site where there
				poverty concern	is no critical fishery
2. Water intake/treatment	Structure stretch into the	Navigation/fishery interference	Loss of people productivity	Quality of life issue	habitats
works	river		including income		Proper structural design
					with limited structure
					stretched into river
Project implementation					
Water facility development	Weir or dam construction,	Water quality issue	Human and aquatic health	Poverty concern and	Proper control of sediment
	and water pipe alignment		issue	aquatic life affect	during the construction.
Project operation					
1. Water processing and	Diversion of huge amount	Water quantity reduced	Inadequate water use in	Food security issues and	Use of MRC Procedures for
use	of water for use		downstream	poverty concern	Water Use Monitoring
	Wastewater from tourism-				
2. Wastewater generation	related and industrial	Water quality issues	Impacts on aquatic	Reduce biodiversity and	Proper plan and implement
from some activities	activities		ecosystem	human health	wastewater management
					and reuse system

Note on identification of "significant" transboundary impacts

The term "significant" is understood as excluding mere inconveniences or minor disturbances Member Countries are expected to tolerate from one another, in conformity with the principle of good neighborliness¹⁴. In practice, significance of transboundary environmental impacts (such as ones indicated in the checklist above) could be considered based on: (i) its probability; and (ii) its extent. The below described approach can be used for the initial estimation of the level of probability and the extent of transboundary impacts of the proposed project and lead to classification of the transboundary impact level. Significant transboundary environmental impacts may therefore be identified and defined through the combination between these two components as described in Tables 1, 2 and 3. Tables 1 and 2 below give examples of scales of the level of probability and level of extent of transboundary impacts.

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¹⁴ Such understanding is established in relevant context e.g. by the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (see e.g. discussion of the term on the Convention's website, http://www.unwatercoursesconvention.org/faqs/).

 Table 1:
 Probability of transboundary impacts

Level	Descriptor	Description
1	Rare	May occur only under very exceptional circumstances
2	Unlikely	Could occur sometimes
3	Moderate Likely	Might occur sometimes
4	Likely	Will probably occur under most circumstances
5	Almost Certain	Is expected to occur under most circumstances

Table 2: Extent of transboundary impacts

Level	Descriptor	Description
1	Insignificant	Very minor impact, with low costs
2	Minor	Minor impact, with moderate costs
3	Moderate	Medium level impact requiring ongoing management or expensive corrective action
4	Major	Major issue, high financial loss, and high and long-term costs
5	Catastrophic	Serious issue, very high financial loss, and very high and long-term costs

The significance of the transboundary impacts can be determined based on the relationship between the two components as illustrated in the matrix (Table 3) where impacts are classified into different levels or categories as low, medium, significant or very significant.

Table 3: [Significance] of transboundary impacts

Duokokilitu		Extent					
r	Probability Level of Impact		Minor	Moderate	Major	Catastrophic	
Lev			2	3	4	5	
1	Rare	1.0	1.5	2.0	2.5	3.0	
2	Unlikely	1.5	2.0	2.5	3.0	3.5	
3	Moderate	2.0	2.5	3.0	3.5	4.0	
4	Likely	2.5	3.0	3.5	4.0	4.5	
5	Almost Certain	3.0	3.5	4.0	4.5	5.0	

Source: Modification from IHA protocol¹⁵

Level of transboundary impact classification:

1.0 - 2.0 Low

2.5 – 3.0 Medium

3.5 - 4.0 [Significant]

4.5 – 5.0 Very [significant]

It is worth emphasizing that the above approach is not intended to produce an "objective" decision on whether or not the potential transboundary impacts associated with a given project are enough "significant" to be included in the EIA Report. In the transboundary context where individual parties (Concerned Member Countries or other non-state stakeholders) often hold different views and display different levels of sensitivity to various issues it would be necessary to reach mutual understanding through engaging in deliberative process with an uncertain result. Therefore, a possible lack of agreement on what particular values of considered environmental indicators shall constitute thresholds defining a "significant" impact shall not be used as an excuse for postponing or not proceeding with the TbEIA process.

¹⁵ International Hydropower Association. Sustainability Assessment Protocol, pp. 9-10, July 2006.

ANNEX 3: FORMAT OF TBEIA INITIATION LETTER

Attached: Summary of the project information:

- (a) Information on the proposed project, including any available information on its possible transboundary impacts;
- (b) Information on the nature of the possible decision and expected timing of the EIA process; and
- (c) proposal for Early consultation to establish EIA scope and to agree on practical aspects of fact-finding steps to allow for transboundary EIA analyses.

ANNEX 4: FORMAT OF RESPONSE TO TBEIA INITIATION LETTER

Response to your letter on potential Transboundary Environmental Impact Assessment dated
Thank you for your letter dated
We would like to participate in your EIA process concerning the project (name/title of the project), and we are ready to take part in the Early consultations to determine the scope and practical arrangements of the EIA. We propose that the Early consultation meeting take place (proposed time and venue).
We designate (at our EIA-responsible authority) for the future routine contact with your authority as well as with the project Proponent.
With best regards, Affected country EIA-responsible authority copy to: NMC

We are attaching summary information for your further consideration:

- a summary of readily available information on relevant topics in the Potentially Affected Country (e.g. protected areas, or sensitive ecosystems that might be affected by the proposed project),
- information on the national EIA public consultation process in the Potentially Affected Country, including contacts of statutory consultees (if any),
- preferred/required language of documents
- comments on proposed timing of the EIA process
- specifying type of information of most interest (e.g. Mekong mainstream water flow alteration)

ANNEX 5: MITIGATION MEASURES IMPLEMENTATION WORKPLAN

Project Stage/ Activities	Direct Indirect Impacts	Irreversible/ Irretrievable Impacts	Proposed Mitigation Measures	Location to be Implemented	Responsibilities	Timeframe
Project design						
Activity 1 Activity 2 Activity 3 Activity 4						
Project construction Activity 1 Activity 2 Activity 3 Activity 4						
Project operation Activity 1 Activity 2 Activity 3 Activity 4						

ANNEX 6: MONITORING WORKPLAN

Project Stage/ Activities	Direct/ Indirect Impacts	Irreversible/ Irretrievable Impacts	Proposed Mitigation Measures	Indicators/ targets to be met	Location to be Measured	Means/ Methods to be Measured	Timeframe (Frequency)	Responsibilities
Project construction								
Activity 1 Activity 2 Activity 3 Activity 4								
Project operation								
Activity 1 Activity 2 Activity 3 Activity 4								
Project decommission								
Activity 1 Activity 2 Activity 3 Activity 4								

ANNEX 7: MRC'S SELECTED LITERARY SOURCES



TOPIC	KEY REFERENCES
MRC'S PROCEDURES	 Procedures for Data and Information Exchange and Sharing (PDEIS) - 2001 Procedures for Notification, Prior Consultation, and Agreement (PNPCA) - 2003 Procedures for Water use Monitoring - 2003 Procedures Maintenance of Flow on the Mainstream - 2006 Procedures for Water Quality -2011
MRC'S GUIDELINES AND TOOLS	 Development of Guidelines for Hydropower Environmental Impact Mitigation and Risk Management in the Lower Mekong Mainstream and Tributaries - 2015 Guidelines for the evaluation of Hydropower and Multi-purpose project portfolios – 2015 Guidelines on Disclosure of Data, Information and Knowledge Revised version, May 2015 Guiding Considerations on Transboundary Monitoring for LMB Hydropower Planning & Management - 2014 Guidelines on Implementation of the Procedures for Water Use Monitoring – 2006 Guidelines on Implementation of the Procedures for Notification, Prior Consultation and Agreement – 2005 Guidelines for Management of The Mekong River Commission Hydrometeorological Network – 2005 Public Participation in the Context of the MRC – 1998 Decision Support Framework (DSF) Toolbox16, namely the Hydrological Model: Soil Water & Assessment Tool (SWAT), Basin Simulation Model: Integrated Quantity and Quality Model (IQQM), and Hydrodynamic Model – ISIS.
CROSS-SECTORAL	 ICEM 2010 Strategic Environmental Assessment of Hydropower on the Mekong Mainstream Final Report Mekong River Commission, Vientiane, Lao PDR MRC 2017 Review of the EIA for the Pak Beng Hydropower Project (and related PNPCA documentation) MRC Integrated Basin Flow Assessment (IBFM) Process MRC 2013 Improved Environmental & Socio-Economic Baseline Information for Hydropower Planning (ISH11) MRC 2011 PNCPA Proposed Xayaburi dam project: PNCP documentation, Mekong River Commission, Vientiane, Lao PDR MRC 2009 BDP Scenario Assessment, Mekong River Commission, Vientiane, Lao PDR (several volumes: Methodology volumes, and Technical Notes). MRC 2010 State of the Basin Report Mekong River Commission, Vientiane, Lao PDR MRC 2011 BDP Basin Development Strategy 2011-2015 Mekong River Commission, Vientiane, Lao PDR MRC 2011 BDP-Assessment-of-Basin-wide-Dev-Scenarios Mekong River Commission, Vientiane, Lao PDR MRC (in preparation) Study on Sustainable Management and Development of the Mekong River or in short, the 'Council Study' (CS)
GEOMORPHOLOGY	Jirayut 2007 SWAT Model Application for Erosion and Sedimentation of Lower Mekong River Basin Mekong River Commission, Vientiane, Lao PDR Koehnken L 2012 Potential Sediment Contribution in the Lower Mekong River Basin Mekong River Commission, Vientiane, Lao PDR Saarkkula etal 2010 Origin fate and role of Mekong sediments Mekong River Commission, Vientiane, Lao PDR
HYDROLOGY	 Adamson P 2010 Hydrological Significance, Mekong River Commission, Vientiane, Lao PDR Cross 2004 Hydrologic Analysis for Basin Planning using the MRC DSF Spatial flood relationships to river flows dai fish catches & inundated populations Mekong River Commission, Phnom Penh, Cambodia Hatfield 2010 Review of Streams and Catchments data Mekong River Commission, Vientiane, Lao PDR Hatfield 2010 Stream and Catchment Generation Mekong River Commission, Vientiane, Lao PDR Piman etal 2013 Assessment of hydrological changes in the lower Mekong Basin Mekong River Commission, Vientiane, Lao PDR van Zalinge etal 2003 The Mekong River System Mekong River Commission, Vientiane, Lao PDR Vogel 2012 Final Draft Synthesised Significant Tributaries Study Mekong River Commission, Vientiane, Lao PDR
WATER QUALITY	Hart etal 2001 Transboundary Water Quality in the MRB Mekong River Commission, Phnom Penh, Cambodia MRC 2010 Water-Quality-Report-Card-2010 EP Report Card 2010.indd Mekong River Commission, Vientiane, Lao PDR

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 $^{^{\}rm 16}$ For details see http://portal.mrcmekong.org/mrctoolbox

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BASIN	MRC 2016 Basin Development Strategy 2016-2020
DEVELOPMENT	BDP 2004 The application of the RAOM to economic analysis of water use trade offs within the BDP 2004 The application of the RAOM to economic analysis of water use trade offs within the
PLANNING	BDP Mekong River Commission, Phnom Penh, Cambodia Halcrow 2003 Final Report on the Development of the BDP RAOM Mekong River Commission,
	Phnom Penh, Cambodia
	MRC 2005 Scenarios for strategic planning Mekong River Commission, Vientiane, Lao PDR
	MRC 2005 Strategic directions for IWRM in the LMB Mekong River Commission, Vientiane, Lao
	PDR
	MRC 2006 BDP Completion Report for Phase 1 Mekong River Commission, Vientiane, Lao PDR
HYDROPOWER	MRC 2009 BDP2-Regional-Hydropower-Sector-Review Mekong River Commission, Vientiane, Lao
	PDR AMDC 2000 Proliminary DC of LMR Mainstream dams Final/Version Scart00 Makens Biyes
	 MRC 2009 Preliminary-DG-of-LMB-Mainstream-dams-FinalVersion-Sept09 Mekong River Commission, Vientiane, Lao PDR
	Muir 2010 Tributary Significance Study - HYDROPOWER Mekong River Commission, Vientiane,
	Lao PDR
	ISH01: PILOT TESTING IN THE SRE POK SUB-BASIN ON THE IDENTIFICATION OF ECOLOGICALLY
	SENSITIVE SUB-BASINS FOR SUSTAINABLE DEVELOPMENT OF HYDROPOWER ON TRIBUTARIES
BIODIVERSITY AND	Grill G Ariwi G and Lehner B 2012 ecosystem fragmentation in Significant Tributaries Mekong Biogram Commission Ministers Los DDB Biogram Co
ECOSYSTEMS	River Commission, Vientiane, Lao PDR Halls AS and Kshatriya M 2009 Modelling the cumulative barrier and passage effects of
	mainstream hydropower dams on migratory fish populations MRC Technical Report No 25
	Mekong River Commission, Vientiane, Lao PDR
	Meynell PJ 2012 Ecological significance paper V1 Mekong River Commission, Vientiane, Lao PDR
	MRC 2013 ISH11 Phase 2 Aquatic Ecology Annex 20 Dec 2013 Mekong River Commission,
	Vientiane, Lao PDR
	 Poulsen AF 2002 Ouch Poeu Sintavong V Ubolratana S and Nguyen TT Fish Migrations of the Lower Mekogn River Basin implications for development planning and environment MRC
	Technical Report No 8 Mekong River Commission, Vientiane, Lao PDR
	Schmultz and Mielach 2013 Review of existing research on fish passage through large dams and
	its applicability to Mekong mainstream dams Mekong River Commission, Vientiane, Lao PDR
	Baran, E., Baird, I.G., Cans, G., 2005a. Fisheries bioecology at the Khone Falls (Mekong river, southern Loca). WorldFish
FISHERIES	southern Laos). WorldFish. • Hortle KG and Sontornratana 2008 Socio-economics of Fisheries of the Songkhram River basin,
11011211120	Northeast Thailand MRC Technical Report No 17 Mekong River Commission, Vientiane, Lao PDR
	Hortle KG Troueng R and Lieng S 2008 Yield and value of wild fishery in Battambang Province
	MRC Technical Report No 18 Mekong River Commission, Vientiane, Lao PDR
	Hortle, K.G. (2013) Mitigation of the impacts of dams on fisheries - a primer. Mekong Parallel and the Commission of the impacts of dams on fisheries - a primer. Mekong Parallel and the Commission of the impacts of dams on fisheries - a primer. Mekong
	Development Series No. 7. Mekong River Commission, Vientiane Lao PDR. 74 pages Mekong River Commission, Vientiane, Lao PDR
	Humbry 2002 financial-analysis-and-risk-assessment of selected aquaculture and fishery
	activities in the Mekong Basin MRC Technical Report No 5 Mekong River Commission, Phnom
	Penh, Cambodia
	Koponen etal 2009 Productivity and fisheries report Mekong River Commission, Vientiane, Lao
	PDR Baran, E., Jantunen, T., Kieok, C.C., Chong, C., 2005b. Values of inland fisheries in the Mekong
	River Basin. WorldFish.
AGRICULTURE	MRC 2010 Multi-functionality of paddy fields over the Lower Mekong Basin MRC Technical
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