(July 16 2010)

Guidelines and Checklists to
Review Environmental and Social Impact Assessments

Joint UNEP and UNDP Poverty–Environment Initiative
ESIA Component
Lao PDR

Table of Content

Acronyms ……iii

Terminology (as defined in EIA Decree) ……iv

Executive Summary ……vi

Figure 1: Flowchart of Decree on EIA....vii
Box 1: The Review Procedure at a Glance viii
Box 2: The Scope of the Review Results at a Glance....ix

Guidelines and Checklists to Review Environmental and Social Impact Assessments in Lao PDR

Introduction ……1

Why conduct a Review?....1
Experience to Date with IEE and EIA Reviews....2
This Review Procedure 2
Who Can use These Review Guidelines and Checklists....4
Box 3: User's of These Review Guidelines and Checklists....5

1 Conduct the Administrative Review ……6

1.1 Identify the Review Coordinator(s) 6

1.2 Review Coordinator(s) to Determine whether the report is complete and of good quality 6

1.3 If the report is incomplete, the Review Coordinator returns the report to the Project Developer for revisions. The Project Developer will revise and resubmit the Report for another administrative review 6

2 Conduct the Technical Content Review(s) ……7

2.1 Review Coordinator will Set the Scale / Depth of the Technical Content Review....7

2.2 Review Coordinator will Select the Technical Reviewer(s) and Distribute the Report(s) to the Technical Review Committee....8

2.3 Reviewing an IEE or an EIA 9

2.3.1 Each Reviewer should prepare for a Review 9
2.3.2 Each Reviewer to read the IEE or EIA Report (and Sub-Plans) in Detail and Complete the Relevant Checklist(s) (from the perspective of his/her expertise)....9
2.3.3 Each Reviewer should summarize His/Her Review Results and Submit His/Her Findings to the Review Coordinator....10

2.4 Review Coordinator Compiles All Review Findings and Invites the Project Developer to a Technical Workshop to discuss the Findings 12

2.5 WREA Will Order When and How the Project Developer Is to revise the Technical Content of the IEE or EIA report, Based on the Consolidated review Findings..... 13

2.6 (Presumably) The Project Developer will revise the IEE or EIA report (and other sub-plans) as specified, re-submit the report(s), and WREA will review the revised report(s) 13

3 Conduct the Project-Decision Review ……14

3.1 WREA to Consider More Fully the Implementability and Sustainability of the EMMP, SMMP, any Other Sub-plan, and Consultation Process. 14

3.2 WREA to Determine if all Significant Impacts have been Resolved 14

3.3 If all significant Impacts have been Resolved, WREA to Set the Conditions of Approval for the Project..... 15

4 Limitations of Any Review Procedure ……15

5 References ……16

Main Appendixes ……i
Appendix 1: Administrative Review Checklist **……ii**
Appendix 2: Technical Content Review Checklist ...**……..iii**
Appendix 3: Project-Decision Review Checklist **……x**

Appendices to Review Certain Sub-plans ……xii
Appendix 4: Checklist to Review a Social Development Plan (SDP) ……**……xiii**
Appendix 5: Checklist to Review of a Resettlement Action Plan (RAP) **……xvi**
Appendix 6: Guidelines *and* Checklists to Integrate Biodiversity **……..xxi**

ACRONYMS

APs	Affected persons
BAP	Biodiversity Action Plan
IEE	Initial Environmental Examination
EIA	Environmental Impact Assessment
EMDP	Ethnic Minorities Development Plan
ESIA	Environmental and Social Impact Assessment
EMMP	Environmental Management and Monitoring Plan
HIA	Health Impact Assessment
IFC	International Finance Corporation
PWREOs	Provincial Water Resources and Environment Offices
RA	Responsible Agency
RAP	Resettlement Action Plan
SDP	Social Development Plan
SEMII	Strengthening Environmental Management (SEMII) Project (SIDA funded)
SIA	Social Impact Assessment
SIDA	Swedish International Development Cooperation Agency
SMMP	Social Management and Monitoring Plan
STEA	Science Technology & Environment Agency (replaced by WREA)
TORs	Terms of Reference
WBMP	Water Basin Management Plan
WREA	Water Resources and Environmental Administration

TERMINOLOGY (AS DEFINED IN EIA DECREE)

Initial environmental examination (IEE) means studying, surveying, researching and analysing data to estimate initial environmental and social impacts, including impacts on health which may arise from investment projects in Category 1, as provided in Article 2 of this Decree, as well as identify measures to prevent and mitigate possible environmental and social impacts.

Environmental impact assessment (EIA) means studying, surveying, researching-analysing and estimating of possible positive and negative impacts on the environment and society, including short and long term impacts on health created by the investment projects classified in Category 2, Article 2 of this Decree, as well as offering appropriate alternatives, environmental management and monitoring plan (EMMP), and social management and monitoring plan (SMMP) to prevent and mitigate possible impacts which are likely to happen during construction and operation of the investment projects.

Project screening means study and analysis of data contained in an investment project (document) to determine whether the proposed investment project requires initial environmental examination or environmental impact assessment or not.

Scoping of the study means the process to determine the scope of the environmental impact assessment and the data needed to be collected and analysed, to assess the impacts of the investment project on the environment, in which, such study requires terms of reference (TOR) to prepare a report on environmental impact assessment.

Terms of reference means all works needed to be done when carrying out environmental impact assessment, in accordance with the scope of the study for assessing environmental impact**.**

An environmental management and monitoring plan (EMMP) means a plan formulated in a report on environmental impact assessment which defines main environmental activities, measures on prevention, minimisation and mitigation of environmental impacts, as well as organisational structures and responsibilities, schedule and sufficient budget for implementation of the environmental management and monitoring activities, during a project's construction, operation and termination period.

A social management and monitoring plan (SMMP) means a plan formulated in a report on environmental impact assessment which defines main social activities, measures on prevention, minimisation and mitigation of social impacts, as well as measures on compensation, resettlement and restoration of living conditions of the people who are (will be) affected by the investment project, organisational structures and responsibilities, schedule and sufficient budget for the implementation of social monitoring activities, during a project's construction, operation and termination period.

A project developer means any person, legal entity or organisation, from the public or private sector, who/which is licensed to undertake study, survey, design, construction and operation of an investment project.

Stakeholders mean any person, legal entity or organisation who/which are interested in, involved in or have interests in an investment project, in an activity or a matter (related to the project) because they are involved in or (are likely to be) affected by the investment project.

Involvement means process of consultation, dissemination of information on an investment project to collect comments from those who are likely to be affected by or gain benefits from the investment project, as well as from those who are interested in the investment project, to be used as references in preparing and deliberating a report on initial environmental examination or a report on environmental impact assessment, an environmental management and monitoring plan (EMMP), and a social management and monitoring plan (SMMP). Involvement can be in the form of participation in all level meetings of the stakeholders, as well as of those who are (likely to be) affected by the investment project, during the project construction and operation period.

The project affected people means a natural person, legal entity, or organisation who/which are directly or indirectly affected by the investment project (or are likely to be affected) due to legally requisition of lands or real estate, changes of land category, and impacts on the ecological and environmental system in the their settlement areas.

The host village means a village which accepts migration of the project affected people by an investment project.

Migration and restoration of living condition means: - Measures to minimise negative impacts on the society, as well as on the project affected people who are wholly or partially affected by the investment project, including payment of compensation to those who lose their property and incomes, by restoring rights, providing direct assistance in preparing (pioneering) 'new production areas basis' in the newly allocated settlement area.
- Assistance to those who are severely affected, due to the loss of assets, residences, cultivation land, incomes and jobs, required to be compensated those losses appropriately, including provision of facilities to further improve living standard, or at least, not worse than before the existence of the investment project.

An environmental compliance certificate means a legal document which approves a report on initial environmental examination or a report on environmental impact assessment, an environmental management and monitoring plan (EMMP), and a social management and monitoring plan (SMMP).

An ongoing project refers to a project which is under construction or has commenced exploring, or commenced operating.

A complicated project refers to an investment project which has substantial impacts on the environment and society, including impacts beyond the border or accumulative impact on other investment projects, and in which complicated technology is applied.

EXECUTIVE SUMMARY

An environmental and social impact assessment report is a statement about the likely impacts of a proposal and how the identified negative impacts can be mitigated and managed and how the positive impacts can be enhanced. The purpose of this review procedure is to ensure that the Initial Environmental Examination (IEE) and the Environmental Impact Assessment (EIA) reports provide adequate assessment and protection measures to manage environmental and social impacts. A systematic approach to review is needed to ensure that the environmental and social impact assessment reports comply with requirements, are consistent with standards of good practice, and provide good quality information to support decision making. An in-depth review requires that the full IEE or EIA report be assessed in terms of:

1. Whether the report fulfills administrative requirements;
2. Whether the report fulfills technical content requirements for each chapter;
3. Whether the Project should be approved or rejected from an environmental perspective.

These guidelines describe a generic review procedure that can be implemented in 3 parts:

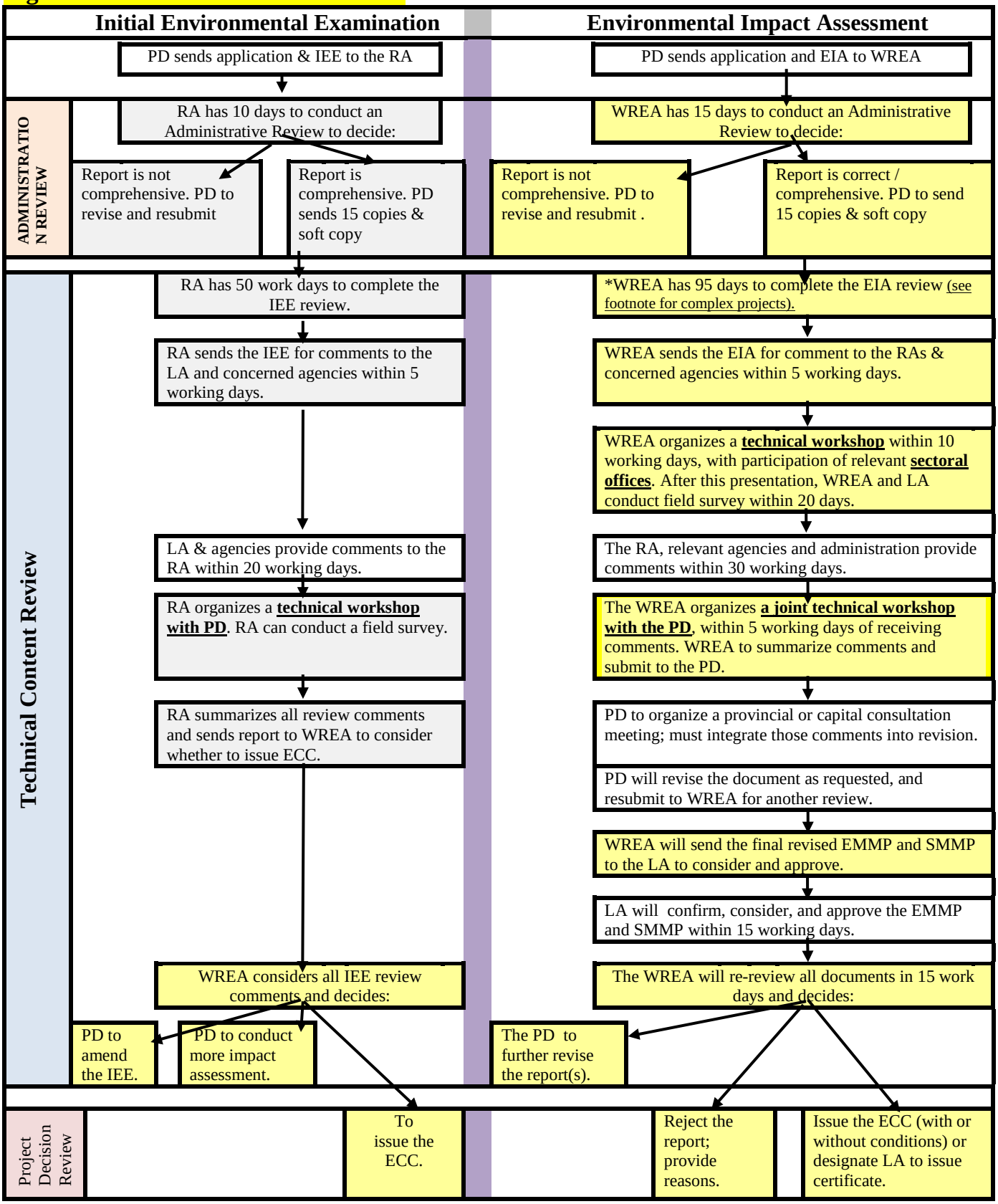
Part 1: Administrative Review: Assesses the completeness and presentation quality of a report. *In cases where the report is incomplete, it should be returned to the Project Developer before attempting a Technical Content Review.*

Part 2: Technical Content Review: Assesses whether the technical information is appropriate, sufficient, and adequate to make a decision on project approval. It identifies content deficiencies that *must* be addressed before the final submission of a report. *In cases where the technical content of the report is inadequate, the report should be returned to the Project Developer for revisions, before attempting the Project-Decision Review.*

Part 3: Project-Decision Review (i.e., sustainability review): Once Part 1 and 2 have ensured that the report contains enough information, the review procedure can address the question of whether the project should be approved (i.e., is the project sustainable and implementable?). The Project-Decision Review step assesses whether the Project, as described, should be given an Environmental Compliance Certificate, and if so, under what conditions.

These guidelines and checklists can be applied to small and large projects and to different sectors and can be used by many different types of stakeholders, e.g., WREA, Responsible Agencies, Technical Review Committees, the Project Developer, expert panels, or the general stakeholder. Figure 1 shows a *Flowchart of the Review Process* based on the *Decree on Environmental Impact Assessment.* Box 1 shows the 3-step *Review Procedure at a Glance.* Box 2 shows the *Scope of the Review Results at a Glance.* Six checklists (which provide questions on what to look for in a report) can guide and structure the review procedure (Appendices 1–6).

Figure 1: Flowchart of Decree on EIA



N.B. WREA has 120 days to complete the review of a complex project. It will establish a panel of experts within 30 work days to review the reports; the experts will provide written review comments to WREA within 30 work days.

LEGEND: ECC = Environmental Compliance Certificate; EIA: Environmental Impact Assessment; IEE: Initial Environmental Examination; LA: Local Administration & other concerned agencies; PD: Project Developer; RA: Responsible Agency; WREA: Water Resources and Environmental Administration.

Box 1: The Review Procedure at a Glance	
Part 1.	**Conduct the Administrative Review.**
1.1.	Responsible Authority or WREA identify the Review Coordinator(s).
1.2	Review Coordinator(s) to determine whether the report is complete and of good quality.
1.3	If the report is incomplete, the Review Coordinator returns the report to the Project Developer for revisions. The Project Developer will revise and resubmit the Report for another administrative review.
	Once the report passes the Administrative Review, it can proceed to Part 2.
Part 2.	**Conduct the Technical Content Review.**
2.1	Review Coordinator will set the scale / depth of the technical content review.
2.2	Review Coordinator will select the reviewer(s) and distribute the report(s) to all members of the Technical Review Committee.
2.3	Reviewing an IEE or EIA.
	2.3.1 Each Reviewer should prepare for a Review.
	2.3.1.1 Conduct background research on the sector/project type.
	2.3.1.2 Conduct background research on the Project area's biophysical and social components.
	2.3.1.3 Read the whole IEE or EIA report (and any sub-plan) ***quickly***.
	2.3.1.4 Undertake a site visit, if possible
	2.3.2 Each Reviewer should read the IEE or EIA report (and sub-plans) in detail and complete the relevant checklist(s)(from the perspective of his/her expertise).
	2.3.3 Each Reviewer should summarize his/her review results and submit findings to the Review Coordinator.
2.4	Review Coordinator compiles all findings and invites the Project Developer to a technical workshop to discuss the findings. All comments and findings are summarized and submitted to WREA.
2.5	WREA will order when and how the Project Developer is to revise the IEE or EIA report (and other sub-plans), based on the consolidated *Technical Content Review* findings.
2.6	(Presumably) The Project Developer will revise the IEE or EIA report (and other sub-plans) as specified, re-submit the report(s), and WREA will review the revised report(s).
2.	*Once the report passes the Technical Content Review, WREA can proceed to Part 3.*
Part 3.	**Conduct the Project-Decision Review.**
3.1	WREA to consider more fully the implementability and sustainability of the EMMP, SMMP, any other sub-plan, and consultation process.
3.2	WREA to determine if all significant impacts have been resolved.
3.3	If all significant impacts have been resolved, WREA to set the conditions of approval for the Project.
3	*PROJECT-DECISION REVIEW: Should the Project be approved? If yes, under what conditions?*

Box 2: The Scope of the Review Results at a Glance		
Part 1.	**ADMINISTRATIVE REVIEW (APPENDIX 1 CHECKLIST)**	**Comment**
	Is the report complete? Does it comply with administrative requirements? Is the report presentation of good quality?	
	If yes, proceed to Part 2. *If no, return to Project Developer for revisions.*	
Part 2.	**TECHNICAL CONTENT REVIEW (APPENDIX 2 CHECKLIST)**	**Comment**
	Executive Summary: *Does the executive summary provide an adequate non-technical summary of the whole study in Laos language and in some cases, in English too (using maps and other graphics where appropriate)?*	
	Policy and Legal Framework: *Does the report adequately summarize the policy/legal framework?*	
	Project Description: *Does the report adequately describe the proposed project, using appropriately-scaled maps and diagrams?*	
	Alternatives: *Are realistic and relevant project alternatives described and compared and is the selected alternative a reasonable choice?*	
	Description of the biophysical and social environment likely to be significantly affected by the Project: *Are the physical, biological, and social components that are likely to be significantly affected described and mapped?*	
	Identification and Evaluation of Impacts: *Are the likely effects of the Project on the physical, biological, and social components identified, quantified (to the extent possible), and evaluated for each project phase?*	
	Data quality and methodology for baseline data collection, surveys, impact prediction, and assessment: *Were the methods used to conduct the study described and were they adequate, systematic, and quantitative (to the extent possible)?*	
	Mitigation Measures and Residual Impacts: *Are there appropriate mitigation measures to prevent, reduce, and compensate all identified significant impacts? Are the residual impacts acceptable? Is compensation needed?*	
	Enhancement measures and other environmental protection measures: *Are there measures to enhance the positive impacts?*	
	EMMP/SMMP (and related sub-plans): *Does the report provide an adequate management and monitoring plan and is it implementable?*	
	Monitoring Plan (extra focus): *Does the report provide adequate provisions for monitoring?*	
	Stakeholders' Participation: *Was the IEE/EIA's consultation process adequate and is the consultation plan for the implementation of the EMMP/SMMP adequate?*	
	Is the content of the report appropriate? ***If yes, proceed to Part 3, Project Decision Review. If no, return to Project Developer for revisions.***	
Part 3.	**PROJECT-DECISION REVIEW (APPENDIX 3 CHECKLIST)**	**Comment**
	EMMP/SMMP (and related sub-plans): *Does the report provide an adequate EMMP/SMMP and is it implementable?*	
	Monitoring Plan (extra focus): *Does the report provide adequate provisions for monitoring?*	
	Stakeholders' Participation: *Was the IEE/EIA's consultation process adequate and is the consultation plan for the EMMP/SMMP implementation adequate?*	
	Have all significant impacts been resolved?	
	What additional measures or conditions are needed to safeguard the environment?	
	Is the project as described sustainable and implementable? ***If yes, recommend approval of report/project, with or without conditions. If no, request more revisions, and in the case of EIA, can also recommend to reject the report/Project.***	

GUIDELINES AND CHECKLISTS TO REVIEW ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENTS IN LAO PDR

INTRODUCTION

An environmental and social impact assessment report is a statement about the likely impacts of a proposal and how the identified impacts can be mitigated and managed. It also identifies other environmental protection measures, for instance, enhancement measures. The purpose of this review procedure is to ensure that the Initial Environmental Examination (IEE) and the Environmental Impact Assessment (EIA) reports provide:

1. Adequate *assessment* of a proposal's environmental and social impacts;
2. Adequate environmental *protection measures* to manage the impacts;
3. Necessary and relevant information to decision makers;
4. Clear communication of the key findings to all stakeholders, including the public.

Why conduct a Review?

A systematic approach to review is needed to ensure that the environmental and social impact assessment reports comply with requirements, are consistent with standards of good practice, and provide good quality information to support decision making. A comprehensive review assesses whether a report:

- Complies with explicit guidelines, standards, and criteria for review;
- Complies with the TORs;
- Includes necessary information for each major component;
- Uses adequate methodology and technically-sound information;
- Considers stakeholders' views;
- Presents key findings;
- Provides clear, easy-to-understand information to decision makers and the public;
- Provides *relevant and sufficient* information for the specific decision-making situation.

In brief, environmental and social assessment objectives call for a report that is:

- Complete (can an informed decision be made based on the report?)
- Suitable (does the report provide the right type of information?)
- Understandable (can the information be easily grasped by decision makers?)
- Reliable (does the information meet professional and disciplinary standards?)
- Defensible (is the uncertainty associated with risks and impacts explained?)
- Actionable (does the report provide a good basis to choose an alternative, approve/reject a project, or set conditions of approval?)

An in-depth review requires that the full IEE or EIA report be assessed in terms of:

1. Whether the report fulfills administrative requirements;
2. Whether the report fulfills technical content requirements for each chapter;
3. Whether a project should be approved or rejected from an environmental perspective.

Experience to Date with IEE and EIA Reviews

Based on reviews already completed in Laos (and also according to the Netherlands EIA Commission), common deficiencies in IEE and EIA reports include:

1. The reports fail to comply with ***administrative requirements***;
2. The ***Executive Summary*** is absent, insufficient, or not available in English and in Laos language;
3. The ***policy framework*** is ignored or out-of-date (e.g., regulatory frameworks and environmental targets and standards are ignored);
4. The ***project description*** is incomplete (e.g., does not describe quarry sites);
5. ***Alternatives*** are not assessed, insufficiently addressed, or insufficiently compared (e.g., the best alternative for the environment is not described);
6. The ***environmental and social baseline*** is incomplete (e.g., sensitive elements in the affected environment are not described);
7. ***The impact identification*** is incomplete and the ***impact evaluation process*** is limited (e.g., key problems/impacts or risks are not described; the significance of the various impacts is incorrectly described or evaluated);
8. The ***data, methodology, or prediction models*** are insufficient or outdated;
9. ***Mitigation measures and other environmental protection measures*** are incomplete (or inadequate);
10. There is no ***assessment of residual impacts****;*
11. The ***monitoring program*** is insufficient (e.g., doesn't have an adequate budget);
12. The ***stakeholder consultation*** is/was insufficient.

This Review Procedure

These guidelines describe a generic review procedure. Although a review procedure can look complicated, with a little practice, reviewers will in time be able to review IEEs and EIAs (and any sub-plan) in an efficient and accurate manner. The review procedure can be implemented in 3 parts:

Part 1: **Administrative Review:** Assesses the completeness and presentation quality of a report. ***In cases where the report is very incomplete, it should be returned to the Project Developer before attempting a Technical Content Review.***

Part 2: **Technical Content Review:** Assesses whether the technical information is appropriate, sufficient, and adequate to make a decision on project approval. It identifies content deficiencies that *must* be addressed before the final submission of a report. ***In cases where the technical content of the report is inadequate, the report should be returned to the Project Developer for revisions, before attempting the Project-Decision Review.***

Part 3: **Project-Decision Review (i.e., sustainability review):** Once Part 1 and 2 have ensured that the report has adequate information, the review procedure can address the question of whether the project should be approved. The Project-Decision Review step assesses whether the Project, as described, should be given an Environmental Compliance Certificate (i.e., is the project sustainable and implementable?) If yes, what conditions need to be attached to the compliance certificate.

The box below shows the 3-step review procedure at a glance, with sub-steps.

The Review Procedure at a Glance	
1.	**Conduct the Administrative Review.**
1.1.	Responsible Authority or WREA identify the Review Coordinator(s).
1.2	Review Coordinator(s) to determine whether the report is complete and of good quality.
1.3	If the report is incomplete, the Review Coordinator returns the report to the Project Developer for revisions. The Project Developer will revise and resubmit the Report for another administrative review.
	Once the report passes the Administrative Review, it can proceed to Part 2.
2.	**Conduct the Technical Content Review.**
2.1	Review Coordinator will set the scale / depth of the technical content review.
2.2	Review Coordinator will select the reviewer(s) and distribute the report(s) to all members of the Technical Review Committee.
2.3	Reviewing an IEE or EIA.
	2.3.1 Each Reviewer should prepare for a Review.
	2.3.1.1 Conduct background research on the sector/project type.
	2.3.1.2 Conduct background research on the Project area's relevant biophysical and social components.
	2.3.1.3 Read the whole IEE or EIA report (and any sub-plan) ***quickly***.
	2.3.1.4 Undertake a site visit, if possible
	2.3.2 Each Reviewer should read the IEE or EIA report (and sub-plans) in detail and complete the relevant checklist(s)(from the perspective of his/her expertise).
	2.3.3 Each Reviewer should summarize his/her review results and submit his/her findings to the Review Coordinator
2.4	Review Coordinator compiles all findings and invites the Project Developer to a technical workshop to discuss the findings. All comments and findings are summarized and submitted to WREA.
2.5	WREA will order when and how the Project Developer is to revise the IEE or EIA report (and other sub-plans), based on the consolidated *Technical Content Review* findings.
2.6	(Presumably) The Project Developer will revise the IEE or EIA report (and other sub-plans) as specified, re-submit the report(s), and WREA will review the revised report(s).
	Once the report passes the Technical Content Review, WREA can proceed to Part 3.
3.	**Conduct the Project-Decision Review.**
3.1	WREA to consider more fully the implementability and sustainability of the EMMP, SMMP, any other sub-plan, and consultation process.
3.2	WREA to determine if all significant impacts have been resolved.
3.3	If all significant impacts have been resolved, WREA to set the conditions of approval for the Project.
3	*PROJECT-DECISION REVIEW: Should the Project be approved? If yes, under what conditions?*

Who Can use These Review Guidelines and Checklists

These guidelines and checklists can be applied to small and large projects and to different sectors and can be used by different types of stakeholders, e.g., WREA, Responsible Agencies, Technical Review Committees, the Project Developer, expert panels, or the general stakeholder (see the Box below). In time, it is expected that the systematic application of this review procedure will improve the quality of IEE and EIA reports by making Project Developers aware of government expectations.

Box 3: User's of These Review Guidelines and Checklists

WREA–ESIA and Responsible Agencies (all sectors)
WREA–ESIA (and respective offices) and Responsible Agencies (and respective offices) have various roles in the review of EIA and IEE Reports. All may use these guidelines and checklists to conduct their part of a review procedure. The checklists can serve as a performance check, enabling WREA and RA management to check that subordinate staff have performed their review task well. Reviewers can also use the checklists to document that they have completed their work.

Technical Review Committee[i] (various Reviewers)
Although the Decree does not specify this, it can be assumed that WREA, the project Responsible Agencies, the local administrations and other Concerned Agencies could be Technical Review Committee members. These guidelines can guide and structure the work of each member. The Committee members' comments must be summarized to complete a review.

External Panels[ii] and Specialists[iii]
For some complex projects, independent bodies can be set up to review a report or external specialists can be commissioned to advise on the adequacy of certain (often very technical) information. Those outside parties will also find these guidelines useful.

Project Developers and IEE or EIA Teams
By using the checklists, the Developer / Developer's Consultants will improve their report(s). When preparing or before submitting an IEE or EIA Report, Project Developers can use these review guidelines to check the administrative completeness and technical adequacy of the information in their report. Although this check cannot guarantee that WREA will approve a Project Developer's report, it will undoubtedly minimize delays related to requests for additional information.

Consulted Stakeholders
Some stakeholders have significant interests in particular projects and may choose to review a project on their own behalf to ensure that their interests have been adequately addressed in the IEE or EIA and to ensure that there is a sound basis for decision making. These guidelines will provide them a useful framework for their review.

The next 3 sections provide details on each part of the Review procedure.

[i] **N.B. Technical Review Committees:** In most countries, the Technical Review Committee would comprise representatives from Local Administration, sectoral ministries, other concerned agencies, and issue-relevant specialists [(e.g., health department or tourism department, when a proposal would likely affect those sectors), fisherperson's groups or business association, when relevant, and biologists, physical/chemical environment specialists (e.g., air quality expert), and socio-economic experts (e.g., cultural expert) when relevant].

[ii] N.B. In some countries, universities provide some of the necessary experts and specialists.

[iii] According to the *Decree on Environmental Impact Assessment*, when a review requires domestic and/or international experts/specialists from a specific field, WREA must establish a panel of experts within 30 working days of receiving an administratively complete EIA. The specialists will review the EIA (and any other sub-plan) and provide technical comments to WREA within 30 working days.

1 CONDUCT THE ADMINISTRATIVE REVIEW

1.	**Conduct the Administrative Review (Appendix 1)**
1.1.	Responsible Authority or WREA identify the Review Coordinator(s).
1.2	Review Coordinator(s) to determine whether the report is complete and of good quality (use Appendix 1 Checklist).
1.3	If the report is incomplete, the Review Coordinator returns the report to the Project Developer for revisions. The Project Developer will revise and resubmit the Report for another administrative review.
	Once the report passes the Administrative Review, it can proceed to Part 2.

1.1 Identify the Review Coordinator(s)

The Responsible Agency (in the case of an IEE) and WREA (in the case of an EIA) will designate 1–2 Review Coordinators for each Project undergoing IEE or EIA review.

1.2 Review Coordinator(s) to Determine whether the report is complete and of good quality

The Review Coordinator(s) will conduct and manage the Administrative Review. The *Decree on Environmental Impact Assessment* specifies that the Responsible Agency has 10 working days to complete the Administrative Review of an IEE; WREA has 15 days to complete the Administrative Review of an EIA.

In short, the Administrative Review determines whether the report is complete, clearly presented, and whether it complies with administrative requirements. It will ensure that the report is comprehensive enough to proceed to the next step of the review process. An incomplete report needs to be returned to the Project Developer; the Project Developer can make the relevant revisions and resubmit the report. See Appendix 1, *Administrative Review Checklist* for guidance on relevant questions.

1.3 If the report is incomplete, the Review Coordinator returns the report to the Project Developer for revisions. The Project Developer will revise and resubmit the Report for another administrative review

The Project Developer will revise the report, based on the findings of the Administrative Review. Once the report is complete, it can proceed to Part 2, the *Technical Content Review.*

Part 1	**Administrative Review Results (see Appendix 1 Checklist)**	
	Does the report comply with administrative requirements?	**Comment**
	Is the report presentation of good quality?	**Comment**
1.	**ADMINISTRATIVE REVIEW:** ***Is the report complete and of good quality?*** ***If yes, proceed to Part 2, Technical Content Review.*** *If no, return to Project Developer for revisions.*	

2 CONDUCT THE TECHNICAL CONTENT REVIEW(S)

The Technical Content Review ensures that the report includes the necessary information. This is the longest step in the review procedure, as comments from many experts and stakeholders must be gathered, summarized, and then considered. The Technical Content Review procedure is outlined and described below.

2.	**Conduct the Technical Content Review (see Appendix 2 Checklist).**
2.1	**Review Coordinator will set the scale / depth of the technical content review.**
2.2	**Review Coordinator will select the reviewer(s) and distribute the report(s) to all members of the Technical Review Committee.**
2.3	**Reviewing an IEE or EIA.**
	2.3.1 Each Reviewer should prepare for a Review
	2.3.1.1 Conduct background research on the sector/project type
	2.3.1.2 Conduct background research on the Project area's biophysical and social components
	2.3.1.3 Read the whole IEE or EIA report (and any sub-plan) ***quickly***
	2.3.1.4 Undertake a site visit, if possible
	2.3.2 Each Reviewer should read the IEE or EIA report(s) (and sub-plans) in detail and complete the relevant checklist(s)(from the perspective of his/her own expertise).
	2.3.3 Each Reviewer should summarize his/her review results and submit his/her findings to the Review Coordinator
2.4	**Review Coordinator compiles all findings and invites the Project Developer to a technical workshop to discuss the findings. All comments and findings are summarized and submitted to WREA.**
2.5	**WREA will order when and how the Project Developer is to revise the IEE or EIA report, based on the consolidated *Technical Content Review* findings.**
2.6	**(Presumably) The Project Developer will revise the IEE or EIA report as specified, re-submit the report, and WREA will review the revised report.**
	Once the report passes the Technical Content Review, WREA can proceed to Part 3.

2.1 Review Coordinator will Set the Scale / Depth of the Technical Content Review

Some reviews can take the form of a quick overview by a few key stakeholders; other reviews need to be in-depth. In general, projects that are considered controversial and/or have many significant effects often require a more detailed review, but the scale/depth of a review also depends on the review provisions made in the Project's Terms of References (TORs), the total number of reports and sub-plans (e.g., does it have a RAP, WBMP, and/or EMDP), the complexity of the Project, and whether the resources (e.g., experts) are available.

The *Decree on Environmental Impact Assessment* provides some guidance: the Responsible Agency has up to 50 days to complete the review of an IEE; WREA has 95 working days (or 120 working days for complex projects) for an EIA review. Part 2 of the review should fit within the above mentioned parameters.

2.2 Review Coordinator will Select the Technical Reviewer(s) and Distribute the Report(s) to the Technical Review Committee

For the most part, the technical topic and the main project-specific environmental and social issues will dictate the key type of expertise needed on a review team or by an individual reviewer (e.g., a transport sector proposal may require the inclusion of a transportation engineer and an air quality expert).

In most countries, the Technical Review Committee would comprise in addition to representatives from WREA and the Responsible Agency, representatives from Local Administration, sectoral ministries, other concerned agencies, and issue-specific specialists [(e.g., health department or tourism department, when a proposal would likely affect those sectors), fisherperson's groups or business association, when relevant, and biologists, physical/chemical environment specialists (e.g., air quality expert), sociologist (e.g., cultural expert), when relevant]. Many countries have a set distribution list for the review of their IEE and EIA reports.

WREA in the case of an EIA and the Responsible Agency in the case of an IEE *must* according to the Decree distribute the report(s) to its reviewers within 5 working days of receiving an administratively complete report.

The Reviewers will return IEE comments to the Responsible Agency within 20 working days or to WREA in the case of an EIA within 30 working days.

***EXTRA REQUIREMENTS for EIA reports*:** According to the Decree (see Decree flowchart in *Executive Summary*), EIA reports call for WREA to organize a technical workshop within 10 working days (of receiving an administratively complete report) with participation of relevant sectoral offices. WREA and Local Administration should conduct a field survey within 20 days, after this sectoral workshop.

2.3 Reviewing an IEE or an EIA

2.3.1 Each Reviewer should prepare for a Review

Four (4) steps are recommended to prepare for a review:

2.3.1.1 **Conduct background research on the sector/project type:** The purpose here is to review the typical impacts and typical mitigation measures associated with the sector and project type. (IFC Standards and World Bank Sourcebooks are recommended, as well as a review of the IEEs or EIAs of similar projects elsewhere).

2.3.1.2 **Conduct background research on the Project area's biophysical and social components:** The purpose here is to begin to identify likely location-specific priority issues.

2.3.1.3 **Read the whole IEE or EIA report (and any sub-plan[iv]) quickly:** The idea here is to gain a general overview of the report(s) before tackling all the details.

2.3.1.4 **Undertake a site visit, if possible***:* The purpose here is to become even more familiar with the Project location and potential issues.

2.3.2 Each Reviewer to read the IEE or EIA Report (and Sub-Plans) in Detail and Complete the Relevant Checklist(s) (from the perspective of his/her expertise)

These guidelines mostly focus on the review of an IEE or EIA report, which includes the required management and monitoring plan (EMMP/SMMPs). The checklist to conduct the Technical Content Review of an IEE or EIA report is presented in Appendix 2. Other documents may be attached to the IEE and EIA reports and these guidelines provide checklists for two other often-attached documents: a Social Development Plan (SDP) (Appendix 4) and a Resettlement Action Plan (RAP) (Appendix 5). In addition, Appendix 6 provides guidelines *and* checklists for the integration of biodiversity into the IEE or EIA report. Each Reviewer will use the checklist(s) and other resources (e.g., sectoral-environmental-management guidelines) relevant to the report type(s). *(For instance, if the EIA includes a RAP, the reviewer will also use the Appendix 5 checklist; if the EIA includes a Biodiversity Action Plan, the reviewer will also use Appendix 6).*

A technical review is best arranged in the order in which the report and study tasks are performed. Although the environmental and social assessment process tends to be iterative, the process generally proceeds and is reported in this sequence:

- Executive Summary;
- Introduction;
- Policy and legal framework;
- Project description;
- Alternatives;
- Environmental and social baseline;
- Impact identification and assessment, using various data sources and

[iv] In addition to the generally required environmental and social management plan(s) and monitoring plan(s), a given IEE or EIA may also include these sub-plans: a SDP, RAP, Biodiversity Assessment Plan (BAP), Emergency Response Plan, Ethnic Minority Development Plan (EMDP), Water Basin Management Plan (WBMP), Health Impact Assessment (HIA), or other sub-plans. The review of any sub-plan (and any other type of review, e.g., project-type specific reviews) can be incorporated into this review framework, as needed.

methodologies;

- Mitigation and residual impacts, and other environmental protection measures;
- Management and monitoring plan (EMMP/SMMP), which can include other sub-plans such as a SDP, a RAP, a BAP, an EMDP, an Emergency Response Plan, and a WBMP;
- Consultation, which can occur throughout the process, but is often formally required during the scoping process and the review of the draft report(s).

The Reviewer can follow the environmental and social assessment sequence, asking relevant checklist questions for each report chapter. ***Each reviewer must comment on each report chapter based on their own expertise*** [e.g., the biologist will review the 'project description chapter' (and every other chapter) is terms of the 'biological' requirements and 'biological' implications)]. A technical review procedure will aim to review each report chapter carefully (and each sub-plan), and in sequence, and complete the relevant checklist(s). See Appendix 2 and the 'technical content review section' of Appendices 4–6 (for SDP, RAP, and biodiversity sub-plans) for appropriate technical content review questions.

2.3.3 Each Reviewer should summarize His/Her Review Results and Submit His/Her Findings to the Review Coordinator

Each Reviewer can use the checklists (or the checklists' framework) to organize and report his/her review findings. The table below can help each Reviewer (and then the Review Coordinator) to summarize the findings in a logical manner. Given that the Technical Content Review procedure considers 1. All report chapters (e.g., project description, environmental baseline…) and 2. All sub-sections within a chapter (e.g., project layout), the review findings can be presented using the same chapter headings. There should be an overall statement on the results of a Reviewer's ***content*** review from the perspective of his/her expertise (e.g., air quality expert will consider all matters related to air pollution impacts, air pollution mitigation, and air pollution monitoring). If the reviewer has many comments, the review findings can be reported in a separate file using the relevant chapter headings, i.e., Executive Summary, Introduction, Project Description, and Environmental Baseline, etc.

Part 2.	TECHNICAL CONTENT REVIEW RESULTS (Each Reviewer)	Comment
	Executive Summary: *Does the executive summary provide an adequate non-technical summary of the whole study in Laos language and in some cases, in English too, (using maps and other graphics where appropriate)?*	
	Policy and Legal Framework: *Does the report adequately summarize the policy/legal framework?*	
	Project Description: *Does the report adequately describe the proposed project, using appropriately-scaled maps and diagrams?*	
	Alternatives: *Are realistic and relevant project alternatives described and compared and is the selected alternative a reasonable choice?*	
	Description of the biophysical and social environment likely to be significantly affected by the Project: *Are the physical, biological, and social components that are likely to be significantly affected described and mapped?*	
	Identification and Evaluation of Impacts: *Are the likely effects of the Project on the physical, biological, and social components identified, quantified (to the extent possible), and evaluated for each project phase?*	
	Data quality and methodology for baseline data collection, surveys, impact prediction, and assessment: *Were the methods used to conduct the study described and were they adequate, systematic, and quantitative (to the extent possible)?*	
	Mitigation Measures and Residual Impacts: *Are there appropriate mitigation measures to prevent, reduce, and compensate all identified significant impacts? Are the residual impacts acceptable? Is compensation needed?*	
	Enhancement Measures and other environmental protection measures: *Are there measures identified to enhance the positive impacts?*	
	EMMP/SMMP (and related Sub-Plans): Does the report provide an adequate management and monitoring plan and is it implementable?	
	Monitoring Plan (extra focus): *Does the report provide adequate provisions for monitoring?*	
	Stakeholders' Participation: Was the IEE/EIA's consultation process adequate and is the consultation plan for the implementation of the EMMP/SMMP adequate?	
Part 2.	**INDIVIDUAL REVIEWERS: Considering all of the above, in your expert judgment: *is the technical content of the report appropriate?*** *If the content is deficient, the individual reviewer can recommend revisions and some opinions on whether to approve the Project, and under what conditions.*	**Comment**

When there are other sub-plans attached, each reviewer will summarize his/her results using a framework similar to that outlined above.

2.4 Review Coordinator Compiles All Review Findings and Invites the Project Developer to a Technical Workshop to discuss the Findings

The Responsible Agency and WREA will subject IEE and EIA reports to a Technical Content Review; and very importantly, they will also distribute and request review comments from the Local Administration, other concerned agencies (e.g., sectoral departments that have an interest in the proposal, e.g., land use planning department), and issue-specific experts (e.g., biologists, physical/chemical scientists, and/or sociologists).

The Review Coordinator will compile and summarize all submitted review comments and then schedule ***a technical workshop to discuss all the findings with the Project Developer (PD)***.

The Review Coordinator will integrate the comments from the above-mentioned PD technical workshop into the overall review findings.

EXTRA REQUIREMENTS for ESIA reports: According to the Decree, in the case of an EIA, after the WREA organizes a joint technical workshop with the Project Developer (PD), these extra process steps are needed:

- The PD to organize a provincial or capital consultation meeting and integrates those comments into the revision process;
- The PD to revise the document as requested, and re-submit to WREA for another review;
- WREA will send the revised EMMP/SMMP to the Local Administration;
- The Local Administration will confirm, consider, and approve the revised EMMP/SMMP within 15 working days;

After the LA confirms the EMMP/SMMP, the WREA will re-review all documents within 15 working days and WREA will decide as outlined in 2.5 whether the report needs further revisions.

It is expected that this review process will:

- Identify the *overall deficiencies* in the IEE or EIA report (and in any of the sub-plans, e.g., the RAP), using guidance from the TORs, relevant sector or project-specific guidelines, information from any comparable IEE or EIA reports, and the results from the above outlined Technical Content Review process;
- Highlight the *critical deficiencies* (i.e., deficiencies that directly impede decision making). Less important deficiencies can be placed in an annex;
- Provide *some* comments from the various reviewers on whether to approve the project and under what conditions.

The Review Coordinator must exercise expert judgment in the process of compiling and summarizing the review comments and in identifying ***critical deficiencies***. N.B. ***This is an expert judgment***[v], and not necessarily a matter of listing all the comments' from each reviewer.

[v] *To exercise 'expert judgment' an expert must be able to quote relevant theory and actual facts to support his/her conclusions / expert judgments.*

In the case of an IEE, the Responsible Agency Review Coordinator will submit its review findings (and recommendations) to WREA for consideration after the above mentioned technical workshop with the Project Developer. (WREA will decide as outlined in 2.5 whether the report needs to be revised).

2.5 WREA Will Order When and How the Project Developer is to revise the Technical Content of the IEE or EIA report, based on the Consolidated Review Findings

WREA will make the final decision on how and when the Project Developer must remedy the Report's critical shortcomings. This matter will be communicated in writing to the Project Developer.

It should be emphasized to the Project Developer that if the draft IEE or EIA failed to provide a good project description and a good environmental baseline from the onset, it means that all subsequent report chapters are fatally flawed. Once the information is available, the actual environmental impact assessment has to be redone, based on the new information in the project description or environmental baseline. Because of the interconnectedness of all chapters in an IEE or EIA report, a relatively small omission in the project description or environmental baseline can sometimes mean MAJOR revisions.

2.6 (Presumably) The Project Developer will revise the IEE or EIA report (and other sub-plans) as specified, re-submit the report(s), and WREA will review the revised report(s)

Given that the Decree does not specify whether the revised IEE or the revised EIA is to be circulated again to the Review Committee, it was assumed that only WREA will review the revised report(s) at this very late stage.

Once the content is sufficient, WREA is to proceed to the 'Project-Decision Review' (sustainability assessment).

3 CONDUCT THE PROJECT-DECISION REVIEW

The Part 2 *Technical Content Review* will provide the Review Coordinator some comments on whether the Project, if implemented as planned, would sufficiently safeguard the environment. In Part 2, however, the focus was on whether the report provided adequate technical information in each of the relevant report chapters. ***In part 3 of the review, WREA assesses the report and the Project as a whole, and specifically, it assesses the implementability of the management and monitoring plan, and consultation process. This Part 3 review aims to determine whether the whole project (as planned) safeguards the environment.***

3.	**Conduct the Project-Decision Review (Appendix 3 Checklist).**
3.1	WREA to Consider More Fully the implementability and sustainability of the EMMP, SMMP, any other sub-plan, and Consultation Process.
3.2	WREA to Determine if all Significant Impacts have been Resolved.
3.3	If all significant Impacts have been Resolved, WREA to Set the Conditions of Approval for the Project
3	**PROJECT-DECISION REVIEW: Should the Project be approved? If yes, under what conditions?** ***If no, request more revisions, and in the case of EIA, can also recommend to reject the report/Project.***

3.1 WREA to Consider More Fully the Implementability and Sustainability of the EMMP, SMMP, any Other Sub-plan, and Consultation Process.

Once the content of the report is adequate, this Part 3 of the review process focuses more closely on whether the Project, as presented, is environmentally sound and whether it should be approved (i.e., whether it should be given an Environmental Compliance Certificate). It should be emphasized that a Project that is not sustainable in terms of the biophysical and social pillars will *not* be economically sustainable in the longer term. In short, the Project-Decision Review considers more fully the EMMP/SMMP and the views of stakeholders. In brief, the Project-Decision Review considers more *fully*:

- Whether there are sufficient environmental protection measures for all identified significant impacts;
- Whether the environmental measures are likely to be implemented and whether they are likely to be effective;
- Whether the implementation and effectiveness of the environmental management measures will be monitored;
- The adequacy of the monitoring program(s);
- Whether there is a contingency plan for unanticipated impacts or an emergency response plan, in case of accident;
- The recorded stakeholder comments and stakeholder participation during the operation phase.

3.2 WREA to Determine if all Significant Impacts have been Resolved

Ultimately, the most important question for the Project-Decision Review is whether all significant impacts associated with the Project have been resolved. If not, this is good grounds to reject the report / Project.

3.3 If all significant Impacts have been Resolved, WREA to Set the Conditions of Approval for the Project

If all significant impacts have been resolved, this Part 3 of the review process identifies any additional measure(s) or condition(s) that are needed to safeguard the biophysical and social environment, enhance the positive impacts, facilitate monitoring, or facilitate consultation during implementation. Additional measures and conditions could focus on:

- Additional data collection;
- Additional mitigation or enhancement measures;
- Monitoring;
- Consultation during implementation;
- Other.

Part 3	PROJECT-DECISION REVIEW RESULTS	Comment
3.1	**WREA to consider more fully the implementability and sustainability of the EMMP, SMMP, any other sub-plan, and consultation process.**	
	EMMP/SMMP (and related Sub-Plans): *Does the report provide an adequate management and monitoring plan and is it implementable? Is it likely to be effective?*	
	Monitoring Plan (extra focus): *Does the report provide adequate provisions for monitoring?*	
	Stakeholders' Participation: *Was the IEE/EIA's consultation process adequate and is the consultation plan for the implementation of the EMMP/SMMP adequate?*	
3.2	**WREA to Determine if all Significant Impacts have been Resolved**	
3.3	**If all significant impacts have been resolved, WREA to set the Conditions of Approval for the Project**	
Part 3	**PROJECT-DECISION REVIEW:** Is the project as described sustainable and implementable? Should approval be recommended and under what conditions? *If yes, recommend approval of report/project, with or without conditions.* ***If no, request more revisions, and in the case of EIA, can also recommend to reject the report/Project.***	**Comment**

4 LIMITATIONS OF ANY REVIEW PROCEDURE

Reviewers generally do not have the means to refute the studies and the findings presented in an IEE or EIA (e.g., they cannot go to the field and actually conduct the environmental and social baseline study). Reviewers can only be alert to areas of weakness, omission, or even concealment. This review procedure and the attached checklists provide some tools for that purpose.

5 REFERENCES

These sources were consulted to generate these review guidelines text and checklists:

- Environmental Resources Management. 2001. *Guidance on EIA, EIS Review*. June 2001. Office for Official Publications of the European Communities, Luxembourg. Compiled by Environmental Resources Management (ERM).

- Inter-American Development Bank. 2002. *Fundamentals of Environmental Impact Assessment* (the review list therein). Trainer's Course on Environmental Management and Assessment for Investment Projects, Inter-American Development Bank, – IDB, Inter-American Association of Sanitary and Environmental Engineering. 2002.

- Lee, N. And R. Colley. 1992.
  Part A: *Reviewing the Quality of Environmental Statements.*
  Part B: Environmental Statement Review Package. EIA Centre, Department of Planning and Landscape, University of Manchester. (55 pages).

- United Nations University / UNEP. 2007. United Nations (open learning source) Environmental Impact Assessment Course Modules (# 8, EIA Reporting; #9, Review of EIA Quality; #10, Decision making; #11 Follow-up and Monitoring) (http://eia.unu.edu/course/?page_id=107)

- Welsh Assembly Government. 2004. *A Draft Practical Guide to the Strategic Environmental Assessment Directive*, Department of the Environment, Welsh Assembly Government, Scottish Executive, July 2004.

The biodiversity checklists were compiled from these diverse references:

- *Best practice guidance for biodiversity-inclusive impact assessment: A manual for practitioners and reviewers in South Asia*, by Asha Rajvanshi, et al. IUCN, CBBIA–IAIA Project, 2007. 218 pages.
- *Biodiversity in EIA & SEA: Background Document to CBD Decision VIII/28: Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment.* By R. Slootweg, et al. *2006*. Pages: 81.
- *Biodiversity Manual: A Tool for Biodiversity Integration in EIA and SEA*, Society for the Protection of Nature in Lebanon, 2005. 79 pages.
- *Principles for the use of Strategic Environmental Assessment as a tool for promoting the conservation and sustainable use of biodiversity*. By Jo Treweek, R. Therivel, et al. 2005?, 26 pages.
- *Ramsar's Biodiversity (Handbook 13): Impact Assessment.* 44 pages.
- *Strategic Environmental Assessment and Biodiversity Guidance.* CBBIA, Nov. 2004. 46 pages.

SEMII: The SEMII project provided many IEE and EIA memo reviews (to help identify typical report shortcomings) and these draft checklists (which were revised by the Consultant):

- The Social Development Plan checklist;
- The Resettlement Action Plan checklist.

MAIN APPENDIXES

APPENDIX 1: ADMINISTRATIVE REVIEW CHECKLIST

Part 1	**Administrative Review Checklist for IEE and EIA Reports**	
	Does the report comply with administrative requirements?	**Comment**
	Has the Project Developer endorsed the report?	
	Are the names/credentials of the study team given?	
	Does the report comply with the ***format and basic requirements*** specified in regulations / guidelines?	
	Does the report provide a Table of Contents?	
	Are the typical report components (and sub-components) included? (e.g., Does the report have these sections: executive summary, introduction, policy and legal framework, project description, alternatives, description of the biophysical and social environment, impact identification and assessment, mitigation and residual impacts and enhancement measures, management and monitoring plan (EMMP/SMMP), and stakeholder comments?)	
	Has the Project Developer used Appendix 1 & 2 (and any relevant sub-plan checklist) to check the completeness and technical quality of his/her submission?	
	Does the report provide a copy of the **minutes** (with consultation dates & telephone numbers) of the necessary consultation meetings (e.g., village level and/or district level meetings), signed by the Project Developer and the Consulting Firm?	
	EIA: Does the report comply with the TORs?	
	Is the report presentation of good quality?	**Comment**
	Does the report provide an Executive Summary in Laos language and in English?	
	Does the Executive Summery summarize the whole report, using simple, clear language?	
	Does the report provide a complete list of Acronyms?	
	Is the report logically organized and clearly structured (e.g., differentiates construction phase issues from operational phase issues; are topics presented in the correct section of the report)?	
	Is the presentation comprehensive, but concise, avoiding irrelevant information?	
	Does the report make effective use of tables, figures, **maps,** and other graphics?	
	Are the maps, tables, figures, and other graphics correct and adequate?	
	Are the maps, tables, and figures correctly labelled with an adequate legend?	
	Does the report make effective use of annexes to present detailed data not essential to understanding the main text?	
	Are the sections of the report integrated and consistent?	
	Does the report read as a single document, with cross references between sections?	
	Is the **methodology** explained?	
	Are all analyses and conclusions adequately supported with data and evidence?	
	Are information gaps acknowledged?	
	Are all sources of data properly referenced, including expert judgments and public opinions?	
	Is there any evidence that the IEE/EIA was 'copied' from other reports?	
	Does the report document who was consulted, when, and how they were consulted and does it summarize the comments received?	
	ADMINISTRATIVE REVIEW: ***Is the report complete and of good quality?*** ***If yes, proceed to Part 2, Technical Content Review.*** *If no, return to Project Developer for revisions.*	

APPENDIX 2: TECHNICAL CONTENT REVIEW CHECKLIST

Part 2	Technical Content Review Checklist for IEE or EIA Reports	
	Executive Summary:	**Comment**
	Does the executive summary provide an adequate non-technical summary using maps and other graphics where appropriate of the:	
	▪ Policy and legal framework	
	▪ Project description	
	▪ Alternatives	
	▪ Environmental and social baseline	
	▪ Predicted significant impacts	
	▪ Study methods for completing the baseline, impact identification, and assessment; & related data gaps and uncertainties	
	▪ Proposed mitigation and compensation measures	
	▪ Enhancement measures;	
	▪ Management and Monitoring plan (EMMP/SMMP)	
	▪ Costs related to mitigation, compensation, and monitoring	
	▪ Public consultation	
	▪ Does the report seem fair and impartial overall?	
	Policy and Legal Framework:	**Comment**
	Does the report adequately summarize the policy and legal framework?	
	Is the legislation governing the Project clearly identified?	
	Are all relevant (up-to-date) regulations reviewed (e.g., Forestry Law; EIA regulation)?	
	Does the report refer to applicable national and international standards, norms, and agreements (e.g., Biodiversity Convention)?	
	Project Description:	**Comment**
	Does the report adequately describe the Project, using appropriate maps and diagrams?	
	Are the Project objectives clearly described? Is the Project clearly justified?	
	Is the Project implementation process adequately described (i.e., estimated duration, and start and finish dates for design, construction, operation, and decommissioning phases)?	
	Are all design-phase activities described?	
	Are all construction-phase activities described?	
	Are all operational-phase activities described?	
	Are all decommissioning-phase activities described?	
	Are the main temporary (e.g., construction phase) Project components described, quantified, and located on an appropriately-scaled map?	
	Are the main permanent (e.g., operation phase) Project components described, quantified, and located on an appropriately-scaled map?	
	Are the main decommissioning-phase Project components described, quantified, and located on an appropriately-scaled map?	
	Is the layout of the Project described and located on appropriately-scaled maps (including all sites, buildings, physical structures, storage facilities, & access roads)?	
	Are all services required for the Project described and quantified [e.g., staff requirements (local and foreign), water, sewerage, waste	

	disposal, and traffic movements]?		
	If the Project will displace people or businesses, are the numbers and characteristics of project-affected-persons described?		
	Are the legal restrictions regarding the Project's location indicated, such as other development plans, protected areas, or national monuments?		
	Are the Project inputs, processes, and outputs described and quantified (to the extent possible) for ***all*** Project phases (design, construction, operation, & decommissioning)? Specifically, does the report outline the Project's use of materials, waste products, and what it will produce, as itemized below:		
	Type / quantity of what it needs in terms of: ▪ Raw materials; ▪ Energy; ▪ Water; ▪ Hazardous materials; ▪ Extraction processes; ▪ Jobs (type/quantity) created and related workforce services; ▪ Traffic movements.		
	Type, quantity, and technology/methods/location to reduce, manage, treat and dispose of <u>*all*</u> Project-related ***waste*** products: ▪ Air emissions; ▪ Solid wastes; ▪ Liquid wastes; ▪ Hazardous wastes; ▪ Noise, heat, light, or radiation.		
	▪ Type / quantity of ***products*** produced.		
	Are the Project-related risks discussed? ▪ Risks related to: natural disasters, climate change, hazardous materials, spills, fire, explosion, accidents, and design failure?		
	▪ Are measures to prevent and respond to accidents and abnormal events described (e.g., is there an emergency response plan)?		
	Alternatives:	**Comment**	
	Are realistic and relevant Project alternatives described and compared and is the selected alternative a reasonable choice?		
	Is the baseline situation in the No-Project situation described?		
	Are the main environmental effects of the alternatives compared with those of the proposed Project?		
	Are the main reasons for choosing the proposed Project explained, including any environmental reasons for choosing this alternative?		
	Description of the biophysical and social environment likely to be affected by the Project:	**Comment**	
	Is the biological, physical, and social environment likely to be affected by the Project sufficiently described and mapped?		
	Is the *physical* environment described and mapped adequately? *When relevant*, aspects related to: ▪ Water / hydrology; ▪ Soil; ▪ Topography; ▪ Geology;		

	▪ Landscape; ▪ Climate/climate change; ▪ Current level of air, water, or soil pollution, and noise level?		
	Is the *biological* environment described and mapped adequately? W*hen relevant*, aspects related to: ▪ Flora; ▪ Fauna; ▪ Rare and endangered species; ▪ Ecosystem/habitats; ▪ Biodiversity; ▪ Ecosystem services and ecosystem function; ▪ Protected areas?		
	▪ Is the *social* environment described and mapped adequately? *When relevant*: ▪ Historic sites; ▪ Archaeology; ▪ Indigenous peoples; ▪ Cultural resources and habits; ▪ Health; ▪ Demographic aspects; ▪ Gender; ▪ Poverty level; ▪ General welfare; ▪ Current resource use (including tourism, mines, community resources/assets, e.g., drinking water and non-forest products); ▪ Infrastructure (include road transport, navigation, irrigation, community services, including schools, health centres, and religious buildings); ▪ Property; ▪ Socio-economic aspects (e.g., current employment and education level)?		
	▪ Is the current land use of the area to be occupied by the Project (and the surrounding area) described and mapped (including material assets and local resources that may be affected by the Project)?		
	▪ Is the likely evolution of the environment without the Project described (i.e., the trends for the without-project scenario)?		
	▪ Are the limits to the Project study area for all Project phases determined, mapped, and justified?		
	▪ Are information gaps explained?		
	Identification and Evaluation of Impacts:	**Comment**	
	Are the likely effects of the Project on the physical, biological, and social components identified, quantified (to the extent possible), and evaluated for each project phase?		
	Are direct effects of the Project identified and evaluated?:		
	For the physical environment? When relevant, effects on: ▪ Water / hydrology; ▪ Soil; ▪ Topography; ▪ Geology;		

	▪ Landscape; ▪ Climate/climate change; ▪ Current level of air, water, or soil pollution, and noise level (e.g., will the addition of this project result in a standard being breached)?	
	For the biological environment? When relevant, effects on: ▪ Flora; ▪ Fauna; ▪ Rare and endangered species; ▪ Ecosystem/habitats; ▪ Biodiversity; ▪ Ecosystem services and ecosystem function; ▪ Protected areas?	
	For the social environment? When relevant, effects on: ▪ Historic sites; ▪ Archaeology; ▪ Indigenous peoples; ▪ Cultural resources and habits; ▪ Health; ▪ Demographic aspects; ▪ Gender; ▪ Poverty level; ▪ General welfare; ▪ Current resource use (including tourism, mines, community resources/assets, e.g., drinking water and non-forest products); ▪ Infrastructure (include road transport, navigation, irrigation, community services, including schools, health centres, and religious buildings); ▪ Property; ▪ Socio-economic aspects (e.g., current employment and education level)?	
	▪ Land use	
	Are indirect and other effects of the Project identified and evaluated?	**Comment**
	▪ Are indirect or secondary effects identified (e.g., effects on fauna, flora, or habitats caused by Project-related soil, air, noise, or water pollution)?	
	▪ Are cumulative and synergistic effects identified where practicable?	
	▪ Are effects caused by *ancillary* activities to the main project described (ancillary activities are part of the project, but usually take place away from the main Project location e.g., construction of access routes and infrastructure, traffic movements, mining of aggregates or other raw materials, generation and supply of power, and/or disposal of effluents or wastes)?	
	▪ Are risks identified, quantified to the extent possible, and evaluated?	
	▪ Are effects which could result from *accidents*, abnormal events, or exposure of the Project to natural or human-made disasters described and where appropriate quantified?	

	▪ Are inter-relationships between effects considered where practicable?	
	Are all impacts sufficiently characterized and the significance of each predicted effect discussed for ***each project phase***? N.B. Impact significance generally considers the impact characteristics listed below, making a final judgment of 'significance' usually based on impact magnitude and importance. **Impact characteristics:** ▪ Positive vs. negative? ▪ Geographic extent (local vs. global); ▪ Duration (temporary vs. permanent; short-term vs. long term); ▪ Frequency (continuous vs. infrequent); ▪ Reversibility vs. irreversible; ▪ Probability (high vs. low)? ▪ Magnitude (high vs. low)?	
	Are all ***design phase impacts*** characterized and evaluated using the impact characteristics shown above?	
	Are all ***construction phase impacts*** characterized and evaluated using the impact characteristics shown above?	
	Are all ***operational phase impacts*** characterized and evaluated using the impact characteristics shown above?	
	Are all ***decommissioning phase impacts*** characterized and evaluated using the impact characteristics shown above?	
	Are significant project impacts adequately ranked and appraised?	
	Data Quality and Methodology for Baseline Data Collection, Surveys, Impact Identification, Prediction, and Assessment:	**Comment**
	Were the methods used to conduct the study described and were they adequate, systematic, and quantitative (to the extent possible)?	
	Has the study area been defined widely enough to cover all the area likely to be significantly affected by the Project, including any transboundary issues?	
	Is the choice of study methods explained and appropriate?	
	Are the methodologies to complete the *baseline* described & are they adequate to the purpose and applied correctly?	
	Is the *impact identification method* described? Is it appropriate?	
	Are impact prediction methods described? Are they appropriate?	
	Is the *impact assessment* method described and is it appropriate?	
	Is the basis to evaluate the significance & importance of impacts clearly described? Are the geographic extent, duration, frequency, reversibility, magnitude, and probability of each impact identified as appropriate, and used to determine 'significance'?	
	Does the discussion focus on the key issues / significant impacts of the Project and avoid unnecessary information?	
	Are the conclusions of the assessment clear and logical?	
	Is the data quality appropriate (e.g., primary and recent data for all the important processes)?	
	Are assumptions related to the methodology and data indentified?	
	Are any uncertainties/gaps explained? Are assessments subjected to sensitivity analysis or scenario evaluation, where relevant?	
	To the extent possible, are significant impacts presented on a map?	

	Mitigation Measures and Residual Impacts:	Comment
	Are there appropriate mitigation measures to prevent, reduce, and compensate all identified significant impacts? Are the residual impacts acceptable?	
	Where there are significant adverse effects on the biophysical and social environment, is the potential to mitigate discussed, including measures to (in order of priority): ▪ Reduce or avoid impacts by alternative strategies or locations; ▪ Change the Project design and layout; ▪ Change the methods and processes; ▪ Treat and manage waste; ▪ Change the implementation plan and management practices; ▪ Repair or remedy impacts; and/or Compensate impacts?	
	Are there mitigation measures proposed for all significant impacts?	
	Are the measures clearly described and their effect on the magnitude and significance of impacts clearly explained?	
	Where mitigation of significant adverse effects is not practicable or the Project Developer has chosen *not* to propose any mitigation, are the reasons for this clearly explained?	
	Is there an adequate, sufficiently detailed risk-prevention and contingency program in case of accidents?	
	Are any negative effects of the proposed mitigation described?	
	Are residual impacts described? i.e., Are impacts described on the basis that all proposed mitigation measures were implemented?	
	Are the residual impacts acceptable? By implementing the Project, do the environmental parameters still meet the national environmental standards?	
	What additional measures or conditions are needed to further mitigate the negative impacts of the Project?	
	Enhancement measures & other env. protection measures:	**Comment**
	For impacts predicted to be positive, are enhancement measures to increase the positive impacts proposed (e.g., local job training)?	
	What additional measures or conditions are needed to further enhance the positive effects of the Project?	
	Management and monitoring plan (EMMP/SMMP)	**Comment**
	Does the report provide an adequate EMMP/SMMP and is it implementable?	
	Does the report provide a well-structured EMMP/SMMP?	
	Are all the significant impacts identified in the impact identification chapter addressed in the EMMP/SMMP?	
	Were all necessary protection measures included in the EMMP/SMMP?	
	Are the proposed mitigation measures and other protection measures likely to be effective and adequate?	
	Are risks identified? Is there an adequate emergency response plan in case of accident or failure?	
	Is there a contingency plan and budget for unanticipated impacts?	
	Is a budget included to implement ***all*** identified mitigation and compensatory measures and enhancement measures?	
	Is there a binding commitment on the part of the Project Developer to	

	carry out the indicated control measures?	
	Is there a detailed schedule for implementing the mitigation measures and any other environmental protection measure?	
	Are the responsibilities and the budget to implement the mitigation measures clearly defined?	
	Monitoring Plan (MP) (extra focus):	**Comment**
	Does the report provide adequate provisions for monitoring?	
	Is there an adequate monitoring plan (for the Project Developer and for Government), especially where impacts are uncertain?	
	Are the requirements for monitoring outlined, including: ▪ Tasks and frequency? ▪ Operational budget? ▪ Clear institutional responsibilities for each identified task?	
	Is the monitoring plan clear, practical, & linked to the significant impacts identified for the design, construction, operation, & decommission phases?	
	Are there provisions to revise the EMMP/SMMP (and get it approved by WREA) in the case where there are un-anticipated impacts?	
	Are there provisions to revise the EMMP/SMMP (and get it approved by WREA) 6 months before the start of the operational phase?	
	Are there provisions to periodically revise the EMMP/SMMP every 2–3 years (and approved by WREA) during the operational phase?	
	Is there an adequate budget to finance the monitoring program?	
	Does the EMMP/SMMP provide the means and a procedure to manage un-anticipated adverse effects?	
	Consultation Process:	**Comment**
	Was the IEE/EIA's consultation process adequate? Is the consultation plan for the EMMP/SMMP adequate?	
	Were relevant stakeholders at national and local level consulted to: ▪ Set the TORs of the EIA? ▪ Collect the baseline information? ▪ Identify and evaluate impacts and mitigation measures? ▪ Identify environmental management and monitoring measures?	
	Does the IEE/EIA report provide a list of Consultees & meeting minutes (e.g., a summary of the date/location of the meetings, the comments made, and contact numbers)?	
	Is there a participation plan (with budget) and an explanation of how/when stakeholders (both public and government agencies) will be involved in the EMMP/SMMP and in the implementation of monitoring?	
	TECHNICAL CONTENT REVIEW: Based on the above assessments:	
2	**What additional information is needed?**	
	What additional measures or conditions are needed to develop and implement the IEE/EIA?	
	If the content is appropriate & sufficient, proceed to Part 3, Project Decision Review. If no, return to Project Developer for revisions.	

APPENDIX 3: PROJECT-DECISION REVIEW CHECKLIST

Part 3	**Project-Decision Review Checklist for IEE or EIA Reports**	
	N.B. This part of the review goes beyond just looking at the content/pieces of the report; it looks much more closely at the EMMP/SMMP and consultation process. It looks at the project as a whole. It assesses whether adequate safeguards to protect the environment are in place and whether they are likely to be implemented by the Project Developer.	
	Management and Monitoring Plan (EMMP/SMMP)	**Comment**
	Does the report provide an adequate management and monitoring plan (EMMP/SMMP) and is it implementable?	
	Does the report include a well-structured management and monitoring plan (EMMP/SMMP)?	
	Were all necessary protection measures included in the EMMP/SMMP?	
	Are the proposed mitigation measures and other protection measures likely to be effective and adequate?	
	Are risks identified? Is there an adequate emergency response plan in case of accident or failure?	
	Is there a contingency plan and budget for unanticipated impacts?	
	Is a budget included to implement ***all*** identified mitigation and compensatory measures and enhancement measures?	
	Is there a binding commitment on the part of the Project Developer to carry out the indicated control measures?	
	Is there a detailed schedule for implementing the mitigation measures and any other environmental protection measure?	
	Are the responsibilities and the budget to implement the mitigation measures clearly defined?	
	Is the Project as described sustainable and implementable? ***Have all significant impacts been resolved?*** Does it safeguard: ▪ The physical environment? ▪ The biological environment? ▪ The social environment?	
	What additional measures or conditions are needed to safeguard the *physical* environment?	
	What additional measures or conditions are needed to safeguard the *biological* environment?	
	What additional measures or conditions are needed to safeguard the *social* environment?	
	What additional measures or conditions are needed to further enhance the positive effects of the Project?	
	Monitoring Plan (MP) (extra focus)	**Comment**
	Does the report provide adequate provisions for monitoring?	
	Is there an adequate monitoring plan (for the Project Developer and for Government Authorities), especially where impacts are uncertain?	
	Are the requirements for monitoring outlined, including: ▪ Tasks and frequency?	

	▪ Operational budget? ▪ Clear institutional responsibilities for each identified task?	
	Is the monitoring plan clear, practical, and linked to all the significant impacts identified for the design, construction, operation, and decommission phases?	
	Are there provisions to revise the EMMP/SMMP (and get it approved by WREA) in the case where there are un-anticipated impacts?	
	Are there provisions to revise the EMMP/SMMP (and get it approved by WREA) 6 months before the start of the operational phase?	
	Are there provisions to periodically revise the monitoring program every 2–3 years (and get it approved by WREA), during the operational phase?	
	Is there an adequate budget to finance the monitoring program?	
	Does the monitoring program provide the means and a procedure to manage un-anticipated adverse effects?	
	What additional measures or conditions are needed to facilitate the monitoring system of the Project?	
	Consultation Process	**Comment**
	Was the IEE/EIA's consultation process adequate? Is the consultation plan for the EMMP/SMMP adequate?	
	Were relevant stakeholders at national and local level consulted to: ▪ Set the TORs of the EIA? ▪ Collect the baseline information? ▪ Identify and evaluate impacts and mitigation measures? ▪ Identify environmental management and monitoring measures?	
	Does the IEE/EIA report provide a list of Consultees & a summary of the date/location of the meetings and the comments made?	
	Is there a participation plan (with budget) and an explanation of how/when stakeholders (both public and government agencies) will be involved in the EMMP/SMMP and in the implementation of monitoring?	
	What additional measures or conditions are needed to facilitate the consultation process during Project implementation?	
3.	**PROJECT-DECISION REVIEW: Should the Project be approved? If yes, under what conditions?**	

APPENDICES TO REVIEW CERTAIN SUB-PLANS

APPENDIX 4:

CHECKLIST TO REVIEW A SOCIAL DEVELOPMENT PLAN (SDP)[6]

[6] The development of the Appendix 4 checklist was initiated by the SEMII project and finalized (as presented here) through UNDP support.

CHECKLIST TO REVIEW A SOCIAL DEVELOPMENT PLAN (SDP)		
1	**ADMINISTRATIVE REVIEW**	**Comment**
	Is the report complete? Does it comply with administrative requirements? Is the report presentation of good quality? (The Reviewer can refer to Appendix 1 for an example of a full *Administrative Review Checklist*).	
1	**ADMINISTRATIVE REVIEW: Is the SDP report complete and of good quality? If yes, proceed to Part 2, Technical Content Review.** If no, return to Project Developer for revisions.	
2	**TECHNICAL CONTENT REVIEW: Does the report provide:**	**Comment**
	Executive Summary and Introduction	
	Policy and legal framework, including adequate information on:	**Comment**
	▪ Compliance with Lao PDR laws and regulations;	
	▪ Project development policy;	
	▪ Compatibility with Provincial and District Development Plans;	
	Environmental and social baseline, including adequate information on the area and the Affected Persons' (APs):	**Comment**
	▪ Natural resources management;	
	▪ Production systems;	
	▪ Land use and tenure;	
	▪ Livelihood;	
	▪ Employment and income;	
	▪ Health;	
	▪ Education;	
	▪ Gender issues, vulnerable groups, and ethnic minorities;	
	▪ Villager's perception about the Project;	
	Impacts:	**Comment**
	▪ Loss of shelter, assets, or income due to the Project;	
	Compensation Measures / Entitlement matrix for:	**Comment**
	▪ Compensation for loss of lands;	
	▪ Compensation for loss of structures and other immovable assets;	
	▪ Compensation for loss of crops, trees, and other plants;	
	▪ Compensation for loss of access to previously-used common property;	
	▪ Compensation for loss or damage to community infrastructure;	
	▪ Compensation for temporary/permanent losses incurred by businesses;	
	Other Mitigation / Benefit or Enhancement Measures:	**Comment**
	▪ Livelihood training and awareness raising;	
	▪ Livelihood development;	
	▪ Development of infrastructure;	
	Management and Monitoring Plan	**Comment**
2	**TECHNICAL CONTENT REVIEW: Based on the above assessments:**	
	What additional information is needed?	
	What additional measures or conditions are needed to develop and implement the SDP?	
	If the content is appropriate and sufficient, proceed to Part 3, Project Decision Review. If no, return to Project Developer for revisions.	

3	**PROJECT-DECISION REVIEW of SDP** **Does the SDP provide sufficient information about the management and monitoring plan?**	**Comment**
	Institutional Arrangements:	
	▪ Provincial and District Committees;	
	▪ Village Consultative & Grievance Redress Committees;	
	▪ Project Social Management Unit;	
	Consultation:	
	▪ Consultation and involvement of APs;	
	▪ Grievance mechanism;	
	Budget & Schedule:	
	▪ A reasonable Implementation Schedule;	
	▪ Key actors for each implementation activity;	
	▪ An adequate budget;	
	Monitoring:	
	▪ Monitoring and Evaluation Plan.	
	Is the SDP as described sustainable and implementable? ***Have all significant impacts been resolved?*** Does it safeguard the social environment?	
	What additional measures or conditions are needed to safeguard the *social* environment?	
	PROJECT-DECISION REVIEW: Should the SDP report be approved? If yes, under what conditions?	

APPENDIX 5:

CHECKLIST TO REVIEW OF A RESETTLEMENT ACTION PLAN (RAP)[7]

[7] The development of the Appendix 5 checklist was initiated by the SEMII project and finalized (as presented here) through UNDP support.

CHECKLIST TO REVIEW OF A RESETTLEMENT ACTION PLAN (RAP)		
1	**ADMINISTRATIVE REVIEW (RAP)**	**Comment**
	Is the RAP report complete? Does it comply with administrative requirements? Is the report presentation of good quality?	
	(The Reviewer can refer to Appendix 1 for an example of a full *Administrative Review Checklist*).	
1.	**ADMINISTRATIVE REVIEW: Is the RAP report complete and of good quality? If yes, proceed to Part 2, Technical Content Review.** If no, return to Project Developer for revisions.	
2	**TECHNICAL CONTENT REVIEW (RAP)**	**Comment**
	Was the *process* of resettlement planning adequate and is the content of the report appropriate?	
	Did the planning to manage displacement and resettlement conform with good practice, by including these concepts:	
	▪ Involuntary resettlement / displacement (including economic displacement) is minimised.	
	▪ Resettlement activities where needed, are conceived and executed as a sustainable development program, providing sufficient investment resources to give *displaced* persons an opportuntiy to share project benefits.	
	▪ All Project Affected Persons (APs), including those without land titles, are compensated.	
	▪ Persons displaced and persons needing resettlement are directly involved in the various stages of planning and implementation of the RAP.	
	▪ All direct economic and social impacts caused by the involuntary taking of land are the Project's concern, including: • Any loss of land and/or shelter (whether it leads to relocation or not); • Any loss of assets or access to assets important to production; • Any loss of income sources or means of livelihood; • Any loss of access to locations that provided higher incomes or lowered expenditures (e.g., access to non-timber forest products).	
	Was the demographic and benchmark socio-economic survey completed in sufficient detail, with information on:	
	▪ All Project APs (including the name and address of each AP, photo documentation, and household size);	
	▪ Demographic and socio-economic conditions of each AP by category, such as: head of family with or without land title, squatters, landless persons, indigenous persons, and others;	
	▪ The livelihood characteristics of APs (APs' main occupation, monthly household income from primary sources; and expenditures);	
	▪ Information about all vulnerable APs (e.g., very poor households or	

	households headed by women);	
	▪ Estimated number of households severly affected and needing relocation;	
	▪ Estimated number of households marginally affected;	
	▪ The total scale and magnitude of the population displacement;	
	▪ The productive resource base of the affected population, including incomes from off-farm activities;	
	▪ Total or partial loss of land by type and land use;	
	▪ Total number affected and the size of the affected areas of each house or structure;	
	▪ Type of structure affected (permanent, semi-permanent, and temporary) and building material;	
	▪ Proof of land and building ownership;	
	▪ Tenure status of residents, tenants, and itinerant workers;	
	▪ APs' lentgh of stay in the area and in the affected building(s);	
	▪ Amount of rent paid or deposits made by tenants;	
	▪ Viability of remaining land / building for continued use;	
	▪ Extent of loss of common property, public infrastructure, and/or social services;	
	▪ Total and partial loss of other assets (e.g., trees / crops by type);	
	▪ Number of businesses affected by type;	
	▪ Loss of income or employment (temporary / permanent losses);	
	▪ Formal and informal institutions (e.g., community organisations and NGOs) that can assist with designing and implementing resettlement programs;	
	▪ Prevailing land prices in the vicinity (for land of similar productive quality);	
	▪ Current prices for structures as determined by govenrment departments;	
	▪ Comparative market prices for structures of same category and class;	
	▪ The determination of entitlements for compensation and/or resettlement assistance according to national law;	
	▪ An entitlement matrix by category of APs, showing entitlements and compensation and rehabiliation measures;	
	▪ Perceptions and attitudes of APs towards various resettlement options.	
	Does the RAP *report* present adequate information on:	
	▪ Objectives and principles;	
	▪ Project description;	
	▪ Project impacts;	
	▪ Extent and nature of potential displacement;	
	▪ Legal framework for compensation and resettlement;	
	▪ Eligibility criteria for different categories of displaced persons;	
	▪ Entitlement framework;	
	▪ A matrix of entitlements by AP category, showing entitlement benefits & compensation and rehabilitation measures;	
	▪ Evaluation of assets and replacement cost for losses;	
	▪ The valuation of and compensation for all lost assets;	

	▪ Rehabilitation and income restoration;	
	▪ Resettlement sites (choices and options);	
	▪ Consultation and participation on choice of resettlement site(s);	
	▪ Specific attention to vulnerable groups;	
	▪ Development plan for the resettlement site(s);	
	▪ Guidelines to implement and monitor the RAP and deliver entitlements, outlining:	
	▪ A time line for all activities from project preparation to project evaluation;	
	▪ Organizational responsibilities and key actors;	
	▪ Procedure to resolve grievances;	
	▪ An itemized budget for all compensation, income restoration, and resettlement costs, with an indication on sources of funding	
	Are there ***adequate provisions to implement*** the RAP? Does the management plan:	
	▪ Involve APs in RAP planning;	
	▪ Identify alternatives sites for resettlement;	
	▪ Clarify the size and locational characteristics of potential relocation sites;	
	▪ Evaluate the resettlement sites, then selecting one (or more) resettlement site(s) in consultation with APs;	
	▪ Describe the socio-economic situation of the 'host' population(s);	
	▪ Attend to how to integrate with host communities;	
	▪ Complete a soil suitability survey in the proposed resettlement area(s);	
	▪ Develop a livelihood and income restoration scheme after relocation;	
	▪ Complete the physical planning and the technical and economic feasibility studies for the resettlement packages;	
	▪ Provide adequate time and resources for a social preparation phase;	
	▪ Develop the receiving site(s) and infrastructure in a timely way;	
	▪ Organize the social and economic support services;	
	▪ Provide APs access to relevant training, employment, and/or credit;	
	▪ Provide APs sufficent access to shelter, infrastructure, and social services;	
	▪ Provide APs sufficient access to environemntal protection and management;	
	▪ Provide an effective grievance resolution process;	
	▪ Outline the timetable and budget for resetllement and rehabilitation;	
	▪ Harmonize the resettlement schedule with the construction schedule;	
	▪ Complete the transfer arrangements and relocate the APs in a timely way;	
	▪ Provide a monitoring and evaluation procedure;	
	▪ Monitor and evaluate the implementaton of the RAP and the restoration of livelihoods;	
	▪ Monitor and evaluate the implementation of the Social Development Plan or any Ethnic Minority Development Plan;	
	▪ Ensure that the RAP complied with the Laws and regulations in	

	Laos.	
2	**TECHNICAL CONTENT REVIEW: Based on the above assessments:**	
	What additional information is needed?	
	What additional measures or conditions are needed to develop and implement the RAP?	
	If the content is appropriate and sufficient, proceed to Part 3, Project Decision Review. If no, return to Project Developer for revisions.	
3	**PROJECT DECISION REVIEW** **Is the RAP sustainable? Does it provide:**	**Comment**
	▪ Guidelines to implement and monitor the RAP and deliver entitlements, outlining:	
	• A time line for all activities from project preparation to project evaluation;	
	• Organizational responsibilities and key actors;	
	• Procedure to resolve grievances;	
	• An itemized budget for all compensation, income restoration, and resettlement costs, with an indication on sources of funding	
	▪ Is the RAP as described sustainable and implementable? Have all significant impacts been resolved? Does it safeguard the social environment?	
	▪ What additional measures or conditions are needed to safeguard the social environment?	
3	**PROJECT-DECISION REVIEW: Should the RAP report be approved? If yes, under what conditions?**	

APPENDIX 6:
GUIDELINES *AND* CHECKLISTS TO INTEGRATE BIODIVERSITY

Appendix 6: Guidelines *and* Checklists to Integrate Biodiversity

Introduction

There are a number of reasons that call for the integration of biodiversity into environmental and social impact assessment processes, including to:

- Satisfy legal obligations (national, regional, or international obligations) for conservation;
- Promote the sustainable use of biodiversity;
- Facilitate stakeholder identification;
- Safeguard livelihoods.

Sectors likely to have impacts on biodiversity include: Agriculture; Forestry; Fisheries; Energy; Industry; Transport; Waste management; Telecommunications; Tourism; Urban expansion / new development; and Water and flood management. Likely impacts on biodiversity include:

- Habitat loss caused by land-take;
- Habitat isolation or fragmentation;
- Alternation of water or hydrological regime;
- Alternation of soil composition;
- Pollution (point source and diffuse);
- Disturbance (e.g., by presence of vehicles, people, or noise);
- Introduction or invasion by non-native or overly dominant species;
- Edge effects;
- Genetic-, species-, and ecosystem-level impacts;
- Behavioral impacts;
- Elevated mortality.

Identifying projects with potentially important biodiversity considerations and conducting biodiversity-inclusive EIA requires the assessors to ask questions about the project area, the project activities, and the interaction between the project area *and* activities. In general, projects that require biodiversity-inclusive impact assessment are:

- Located in areas providing important *ecosystem services* or having important biodiversity;
- Have activities that are considered *direct drivers of change*;
- Are Projects located in areas with important ***ecosystem services*** or important biodiversity and have activities that are considered direct drivers of change.

Ecosystem services include: provisioning services, regulating services, cultural services, and supporting services. Table 1 briefly outlines the range of 'ecosystem services'. (Annex 1 shows a more complete list of ecosystem services). Direct drivers of change are activities that lead to biophysical or social changes that in turn affect ecosystems and ecosystem services. Table 2 lists the important 'direct drivers'.

TABLE 1: ECOSYSTEM SERVICES

Ecosystem services include provisioning, regulating, and cultural services; the benefits from these directly affect people. 'Supporting services' are needed to maintain the other services.

Provisioning Services: Products obtained from ecosystems:

- Food
- Fresh water
- Fuel wood
- Fiber
- Biochemicals
- Genetic resources

Regulating Services: Benefits obtained from regulation of ecosystem processes:

- Climate regulation
- Disease regulation
- Water regulation
- Water purification
- Pollination

Cultural Services: Non-material benefits obtained from ecosystems:

- Spiritual and religious
- Recreation and ecotourism
- Aesthetic
- Inspirational
- Educational
- Sense of place
- Cultural heritage

Supporting Services: Services necessary for the production of all the other ecosystem services:

- Soil formation
- Nutrient cycling
- Primary production

TABLE 2: DIRECT DRIVERS OF CHANGE

Biophysical changes that are direct drivers of change

- *Land conversion* (change in land use and land cover);
- *Fragmentation* and isolation (e.g., by linear infrastructure);
- *Extraction, harvest, or removal of species* (of living organisms, or of minerals, ores, and water);
- *External inputs (*waste production) (e.g., emissions, effluents, solid wastes, or noise);
- *Disturbance* of ecosystem composition, structure, or key processes [including disturbance from infrastructure (e.g., reduced sediments downstream because of a dam), or bad practices, e.g., overgrazing);
- Introductions or invasion of (non-desired) species;
- Restoration;
- Climate change.

Social changes that are direct drivers of change

- *Population changes* due to permanent, temporary, seasonal, or opportunistic in-migration (leading to land occupancy, pollution, harvesting, and/or introduction of non-native species…)
- *Conversion or diversification of economic activities* (leading to intensified land and water use, e.g., conversion to cash crops);
- *Conversion or diversification of land use* (e.g., intensification of ranching);
- *Enhanced transport infrastructure and services or enhanced access*;
- *Marginalization and exclusion of (groups of) rural people*.

As mentioned above, identifying projects with potentially important biodiversity considerations to be addressed within a given EIA procedure and conducting biodiversity-inclusive EIA requires assessors to ask questions about the Project area, the Project activities, and the interaction between the Project area *and* the Project activities. The procedure to identify impacts on biodiversity can be quite involved, but usually entails some variation of:

- ***Identifying direct drivers of change*** and defining their spatial and temporal range of influence;
- ***Identifying ecosystems*** lying within this range of influence (in some cases species or genetic level information may be needed);
- ***Describing effects*** of identified drivers of change on identified ecosystems in terms of changes in composition or structure of biodiversity, or changes in key processes responsible for the creation or maintenance of biodiversity;
- ***Identifying stakeholders*** of these ecosystem services and having them participate in the process.

N.B. If a driver of change significantly affects the composition, the structure, or a key ecological process, there is a high probability that related *ecosystems services will be significantly affected*.

Internationally, there are now many different checklists available to:

- Determine whether the ***process*** to integrate biodiversity into EIA was complete and adequate (i.e., checklists to identify projects likely to significantly affect biodiversity; and checklists to scope projects for biodiversity impacts);
- Review the extent to which biodiversity was integrated into an IEE/EIA (i.e., determine whether the biodiversity ***content*** of a report is adequate and whether the proposed mechanisms will be sustainable in terms of biodiversity).

Below, checklists from a number of sources were combined to help with the above tasks.

TRANSLATOR: SOME SECTIONS HERE WERE DELETED. PLEASE REVIEW CAREFULLY

	Appendix 6: Guidelines and Checklists to Review the Integration of Biodiversity	
1	**ADMINISTRATIVE REVIEW**	**Comment**
	As these are guidelines and checklists for integration of biodiversity, the Administrative Review focuses on the detailed screening and scoping process to identify Projects needing a Biodiversity-inclusive IEE/EIA procedure and to identify what issues needed to be studied.	***Yes/No***
	SCREENING AND SCOPING FOR BIODIVERSITY	***Yes/No***
	Were Area-specific questions considered relevant during screening and scoping, such as:	
	▪ Will the Project influence *ecosystem services* (i.e., could the Project affect regulating, provisioning, cultural, and/or supporting services)?	
	▪ Will the Project influence areas having any *legal or international status* (e.g., could the Project affect protected areas or areas supporting protected species)?	
	▪ Will the Project influence *important biodiversity* [could the Project affect areas that are not protected, but are important for biodiversity (e.g., corridors, breeding sites, or areas with species of high genetic value]?	
	Were Activity-specific questions considered relevant during screening and scoping, such as:	***Yes/No***
	Will the Project include direct drivers of change on ecosystem services (i.e., activities that lead to biophysical or non-bio-physical changes known to affect ecosystem services), such as?	
	Will the Project lead to biophysical changes that are direct drivers of change:	**Yes/No**
	▪ *Land conversion* (change in land use and land cover);	
	▪ *Fragmentation* and isolation (e.g., by linear infrastructure);	
	▪ *Extraction, harvest, or removal of species* (of living organisms, minerals, ores, or water);	
	▪ *External inputs (e.g., emissions, effluents, solid wastes, or noise);*	
	▪ *Disturbance* of ecosystem composition, structure, or key processes [including through infrastructure disturbances (e.g., reduced sediments downstream because of a dam), or bad practices, e.g., overgrazing)];	
	▪ *Introductions or the invasion of (non-desired) species;*	
	▪ *Restoration;*	
	▪ *Climate change.*	
	Will the Project lead to social changes that are direct drivers of change:	**Yes/No**
	▪ *Population changes* due to permanent, temporary, seasonal, or opportunistic in-migration (leading to land occupancy, pollution, harvesting, and/or introduction of non-native species);	
	▪ *Conversion or diversification of economic activities* (leading to intensified land and water use, e.g., conversion to cash crops);	
	▪ *Conversion or diversification of land use* (e.g., intensification of agriculture);	

	▪ *Enhanced transport infrastructure and services or enhanced access*;	
	▪ *Marginalization and exclusion of (groups of) rural people*.	
	Were these questions considered relevant during the general scoping process: *Could the proposed Project:*	**Yes/No**
	▪ Affect the physical environment or cause such biological losses that it increases the chance of *extinction* of cultivars, varieties, populations, or the chance of losing habitats or ecosystems?	
	▪ Surpass the maximum *sustainable yield*, the carrying capacity of a habitat/ecosystem, or the maximum allowable disturbance to a resource, population, or ecosystem?	
	▪ Result in *changes to the access* to and rights over biological resources?	
	▪ Change levels or rates of use of biodiversity?	
	▪ Damage or destroy biodiversity on which people depend for their livelihoods?	
	▪ Damage or destroy biodiversity valued by people?	
	▪ Reduce access to biodiversity for current or potential future users?	
	▪ Exacerbate existing threats to biodiversity (e.g., by having activities that already pose a threat to biodiversity in the study area – cumulative effects)?	
	▪ Cause critical impact thresholds to be exceeded (e.g., of pollution)?	
	▪ Have relatively certain impacts on biodiversity?	
	▪ Have large, long-term effects in relation to biological lifecycles?	
	▪ Have repeated impacts on the same biodiversity at such a frequency that recovery might be compromised?	
	▪ Have irreversible impacts on biodiversity (i.e., impacts from which spontaneous recovery is impossible and there are no known effective mitigation techniques)?	
	▪ Lead to projects that are space- or resource-hungry (e.g., occupy large areas or use large volumes of water)?	
	▪ Influence achievement of sustainable development goals?	
	▪ Affect areas or landscapes that have a recognised national or international protection status?	
	▪ Affect protected areas or areas of important, threatened, or vulnerable biodiversity?	
	▪ Affect areas of high biodiversity, whether protected or not?	
	Were these questions considered relevant during the general scoping process to identify biodiversity issues requiring further study and data collection?	**Yes/No**
	▪ What are the main components of biodiversity in the area affected by the project?	
	▪ What is the distribution pattern and richness/abundance of biodiversity?	
	▪ How does biodiversity composition in the study area compare with that outside the study area?	
	▪ Are there biodiversity components that are particularly unique (e.g., locally adapted populations) on or near the Project site?	
	▪ Are there components that are poorly conserved, poorly represented elsewhere, or are the biodiversity components everywhere?	
	▪ Are there any popular or iconic biodiversity components in the area?	
	▪ Which biodiversity components are particularly vulnerable / sensitive to the proposed Project activities?	

	Were these questions considered relevant during the general scoping questions to identify biodiversity issues *requiring further* study and data collection	**Yes/No**
	▪ What are the trends in composition (e.g., is biodiversity organization and composition stable or subject to rapid change; is there a long-term decline in species or habitat diversity)?	
	▪ Which human actions currently or potentially affect biodiversity?	
	▪ How degraded is the environment currently? ▪ Which resources are the most affected?	
	▪ What changes to these actions could improve the situation?	
	▪ What environmental quality changes are expected in the next 5 years?	
	▪ What species, communities, and ecological processes would be affected by the Project? Are any of the species endangered, endemic, sustainably used, new to science, or special in some other way?	
	▪ How much habitat would be eliminated or degraded, including any relevant short-term use? ▪ Are any of the habitats vital to seasonal, life-history, or migratory cycles?	
	Were these questions considered relevant during the scoping to identify *genetic level* biodiversity issues: *Could the proposed Project:*	**Yes/No**
	▪ Directly or indirectly cause a local loss of legally protected varieties, breeds, or cultivated plants or domesticated animals, genomes of social, scientific, and economic importance (e.g., by introducing genetically modified organisms that can transfer genes to legally protected varieties or replacing agricultural, forestry or fisher varieties by new varieties)?	
	▪ Reduce genetic diversity, particularly for rare, declining, or endemic species?	
	▪ Reduce opportunities for populations to interact (e.g., by increasing habitat fragmentation and isolation)?	
	▪ Increase the risk of extinction?	
	▪ Affect locally-adapted populations?	
	▪ Affect important ecosystem services that depend directly on genetic diversity (e.g., pollination of crops)?	
	Were these questions considered relevant during the scoping to identify *species level* biodiversity issues: *Could the proposed Project:*	**Yes/No**
	▪ Cause a direct or indirect loss of a population?	
	▪ Affect the sustainable use of a population?	
	▪ Cause some species (or some populations) to be lost from the area?	
	▪ Affect the success or objectives in the National Biodiversity Action Plan?	
	▪ Alter the species-richness or species-composition of communities in the Project area?	
	▪ Increase the risk of invasion by alien species?	
	▪ Change the amount, quality, or spatial organisation of habitat?	
	▪ Directly affect legally protected species (e.g., through extraction, pollution, or disturbances)?	
	▪ Indirectly affect legally protected species [e.g., by reducing or altering habitat or introducing predators, competitors, parasites, alien species, or genetically modified organisms (GMOs)]?	
	▪ Directly or indirectly affect stop-over areas for migratory birds, breeding grounds of migratory fish, or commercial trade in species protected by	

	CITES?	
	▪ Directly or indirectly affect non-legally protected, but threatened species?	
	▪ *If habitats will be lost or altered, is alternative habitat available to support associated species populations and are there opportunities to consolidate or connect the habitats?*	
	N.B. Relevant Project activities having a <u>species-level</u> impact include: ▪ All introductions of non-indigenous species; ▪ All activities that directly/indirectly affect sensitive or threatened species (i.e., endemic species, species at the edge of their range, or with restricted distributions, or rapidly declining species). Particular attention should be given to species important to local livelihoods and cultures; ▪ All extractive activities related to the direct exploitation of species (fisheries, forestry, hunting, collecting plants, including living botanical and zoological resources); ▪ All activities leading to reproductive isolation of species populations (e.g., linear infrastructure).	
	Were these questions considered relevant during the scoping to identify *<u>ecosystem level</u>* biodiversity issues: *Could the proposed Project:*	**Yes/No**
	▪ Lead to serious damage or total loss of ecosystem(s) or land use type(s), thus leading to a loss of ecosystem diversity?	
	▪ Reduce the overall productivity of the area?	
	▪ Affect the provision of ecosystem services?	
	▪ Change critical ecosystem processes (e.g., hydrological processes or levels of predation)?	
	▪ Change the amount, quality, or spatial organisation of habitat?	
	▪ Have direct influence on legally protected areas (e.g., through emissions, diversion of surface water, extraction of groundwater in a shared aquifer, disturbance by noise, light, or air pollution)?	
	▪ Affect the sustainable exploitation of ecosystem(s) or land-use type(s) by humans in such manner that the exploitation becomes destructive or non-sustainable?	
	▪ *If habitats will be lost or altered, is alternative habitat available to support associated species populations and are there opportunities to consolidate or connect the habitats?*	
	N.B. Relevant Project activities having an <u>ecosystem level</u> impact include:: ▪ Activities in, or in the vicinity of, or with influence on areas with legal status, but not legally protecting biological diversity (e.g., Ramsar sites, UNESCO Biosphere reserves, & landscape preservation areas); ▪ All extractive activities related to the use of resources on which biological diversity depends (e.g., exploitation of surface and ground water); ▪ All activities involving the clearing or flooding of land; the displacement of people; or leading to reproductive isolation of ecosystems; ▪ All activities that significantly affect ecosystem functions; ▪ All activities in areas of known importance for biological diversity (e.g., biodiversity hot spots; areas with large numbers of endemic, threatened, or wilderness species; areas required by migratory species; areas of social, economic, cultural or scientific importance; or unique areas).	
1.	**ADMINISTRATIVE REVIEW: Was the screening and scoping process for the treatment of biodiversity complete and of good quality? If yes, proceed to Part 2, Technical Content Review.** If no, return to Project Developer for revisions.	

2	TECHNICAL CONTENT REVIEW (Integration of Biodiversity)	Comment
	Executive Summary:	**Comment**
	▪ Does the executive summary provide an adequate non-technical summary of the biodiversity issues (using maps and other graphics where appropriate)?	
	Policy and Legal Framework:	**Comment**
	▪ Have the legal provisions relating to biodiversity been reviewed?	
	Project Description:	**Comment**
	▪ Does the Project description list activities that are direct drivers of change?	
	Alternatives:	**Comment**
	▪ Was the impact on biodiversity of the different alternatives assessed?	
	▪ Was an alternative that is positive for biodiversity selected?	
	Description of the biodiversity baseline: Does the study and the report:	**Comment**
	▪ Provide sufficiently detailed data on key biodiversity?	
	▪ Show biodiversity maps? Provide a basic survey of natural areas, using maps and planning documents, aerial surveys, or a site visit?	
	▪ Indicate whether the Project site or surrounding area fall within a protected area (e.g., areas designated for biodiversity protection at a local, national, regional, or international level)?	
	▪ Indicate whether the Project area or surrounding area has been identified by governments or other stakeholders as having a high biodiversity conservation priority? ▪ Or having particular species (protected or not) that may be under threat?	
	▪ Was field work conducted to: ▪ Characterize the nature and relative importance of threats to biodiversity in the Project area? ▪ Help establish usage patterns and the related values that people place on access to biodiversity in the Project area?	
	Identification and Evaluation of Impacts: Does the study and report:	**Comment**
	▪ Indicate that a trained ecologist conducted the biodiversity assessment?	
	▪ Describe and assess the relevant levels of biodiversity (i.e., genetic, species, and ecosystem-level impacts on biodiversity)?	
	▪ Identify direct and indirect impacts on biodiversity, including impacts related to off-site infrastructure?	
	▪ Evaluate the biodiversity importance by considering common criteria including: species/habitat richness; species endemism; keystone species; rarity; size of the habitat; population size; fragility; or the value of ecosystem services?	
	▪ Assess the significance of predicted impacts on biodiversity by assessing the magnitude (or intensity) of the impact and the sensitivity of the affected ecosystem or species?	
	▪ Distinguish between impacts that could be assessed quantitatively and those for which only a qualitative assessment could be made?	
	▪ Assess cumulative impacts, where multiple projects are being implemented within a geographic area (such as a watershed, valley. or air shed), with reference to: o Any existing or proposed activities in the area and the likely effect on	

	biodiversity of those proposals in conjunction with the proposed Project? o Any synergistic effects? o Any known biodiversity threats in the area and the likely contribution of the proposed Project to increasing or decreasing those stresses?	
	▪ Consider adverse affects such as: loss of ecosystems or habitats; habitat fragmentation and increases in the 'edge effect'; alteration of ecological processes; pollution impacts; and disturbance impacts?	
	Data quality and methodology for baseline data collection, surveys, impact prediction, and assessment*:*	**Comment**
	▪ Was quality assurance conducted on the data, baseline study, and surveys?	
	▪ Were the impact prediction method(s) and assessment procedures adequate?	
	Mitigation Measures and Residual Impacts: Does the report consider:	**Comment**
	▪ How best to avoid, reduce, or compensate for biodiversity impacts?	
	▪ Have preventative and mitigation measures been developed for all significant, predicted impacts on biodiversity?	
	Enhancement measures and other environmental protection measures:	**Comment**
	▪ For impacts predicted to be positive, are enhancement measures to increase the positive impacts proposed (e.g., local job training)?	
	▪ What additional measures or conditions are needed to further enhance the positive effects of the Project?	
	Integration of biodiversity management into the EMMP/SMMP or separate Biodiversity Management Plan:	**Comment**
	When Biodiversity is integrated into the EMMP/SMMP: ▪ Has biodiversity been explicitly integrated into the EMMP/SMMP? ▪ Does the EMMP/SMMP assign clear responsibility for biodiversity management? ▪ Are budgets assigned to ensure the necessary staff, skills, and resources are available for biodiversity management tasks?	
	When there is a separate Biodiversity Management Plan:	
	Does the report provide a well-structured biodiversity management plan?	
	Were all necessary biodiversity protection measures included in the plan?	
	Are the proposed biodiversity mitigation measures likely to be effective and adequate?	
	Are biodiversity risks identified? Is there an adequate emergency response plan in case of accident or failure?	
	Is there a contingency plan and budget for unanticipated biodiversity impacts?	
	Is a budget included to implement ***all*** identified mitigation and compensatory measures and enhancement measures?	
	Is there a binding commitment on the part of the Project Developer to carry out the indicated control measures?	
	Is there a detailed schedule for implementing the biodiversity mitigation measures and any other biodiversity protection measure?	
	Are the responsibilities and the budget to implement the mitigation measures clearly defined?	
	Biodiversity Monitoring Plan	**Comment**
	Does the report provide an adequate Biodiversity Monitoring Plan and is it implementable?	
	Is there an adequate biodiversity monitoring plan (for the Project Developer and for Government Authorities), especially where impacts are uncertain?	

	Are the requirements for biodiversity monitoring outlined, including: ▪ Tasks and frequency? ▪ Operational budget? ▪ Clear institutional responsibilities for each identified task?	
	Is the biodiversity monitoring plan clear, practical, and linked to the significant biodiversity impacts identified for the design, construction, operation, & decommission phases?	
	Other Biodiversity Monitoring Plan questions: ▪ Were monitoring indicators for biodiversity identified? ▪ Was the set of indicators agreed with key stakeholders (e.g., experts, local people, and indigenous people) to measure and manage impacts on biodiversity? ▪ Does the monitoring plan include monitoring, measuring, and reporting on biodiversity management and impacts? ▪ Is there a budget for biodiversity monitoring?	
	Are there provisions to periodically revise the biodiversity monitoring program every 2–3 years, including between the construction phase and the operational phase?	
	Is there an adequate budget to finance the biodiversity monitoring program?	
	Does it provide the means and a procedure to manage un-anticipated adverse biodiversity effects?	
	Consultation	**Comment**
	Was the biodiversity-focused consultation process adequate? ***Is the consultation plan for biodiversity management and monitoring plan adequate?***	
	Were relevant biodiversity stakeholders at national and local level consulted to: ▪ Set the TORs of the biodiversity plan? ▪ Collect the baseline information? ▪ Identify and evaluate impacts and mitigation measures? ▪ Identify biodiversity management and monitoring measures?	
	Does the biodiversity report provide a list of Consultees & meeting minutes (e.g., a summary of the date/location of the meetings, contact numbers, and the comments made)?	
	Is there a participation plan (with budget) and an explanation of how/when stakeholders (both public and government agencies) will be involved in the biodiversity plan and in the implementation of monitoring?	
	Other Stakeholders' Participation questions: ▪ Have the views of stakeholders been considered on whether the Project site or its surrounding area has important traditional or cultural value? ▪ Have stakeholders helped to identify the uses that people make of biodiversity and to identify any areas of particular importance? ▪ Has local or indigenous knowledge of local biodiversity been assessed? ▪ Has the participation of biodiversity stakeholders been adequate (e.g., during the various stages of the EIA process from screening to public review of the draft reports)? ▪ Are stakeholders involved in the management and monitoring of biodiversity during Project implementation?	
	TECHNICAL CONTENT REVIEW (Biodiversity): Based on the above:	
	What additional biodiversity information is needed?	
	What additional biodiversity-focused measures or conditions are needed to implement the Biodiversity Management Plan?	
	If the content of the Biodiversity Management Plan is appropriate and sufficient, proceed to Part 3, Project Decision Review. If no, return to Project Developer for revisions.	

3	**PROJECT DECISION REVIEW (Integration of Biodiversity)**	
	N.B. This part of the review goes beyond just looking at the content of the report; it looks much more closely at the management and monitoring plan, and public consultation. And it looks more closely at the whole project. It assesses whether adequate safeguards to protect biodiversity are in place and whether they are likely to be implemented by the Project Developer.	
	Integration of biodiversity management into the EMMP/SMMP or separate Biodiversity Management Plan:	**Comment**
	When Biodiversity is considered integrated into the EMMP/SMMP: ▪ Has biodiversity been explicitly integrated into the EMMP/SMMP? ▪ Does the EMMP/SMMP assign clear responsibility for biodiversity management? ▪ Are budgets assigned to ensure the necessary staff, skills, and resources are available for biodiversity management tasks?	
	When there is a separate Biodiversity Management Plan:	
	Does the report provide a well-structured biodiversity management plan?	
	Were all necessary biodiversity protection measures included in the plan?	
	Are the proposed biodiversity mitigation measures likely to be effective and adequate?	
	Are biodiversity risks identified? Is there an adequate emergency response plan in case of accident or failure?	
	Is there a contingency plan and budget for unanticipated biodiversity impacts?	
	Is a budget included to implement ***all*** identified mitigation and compensatory measures and enhancement measures?	
	Is there a binding commitment on the part of the Project Developer to carry out the indicated control measures?	
	Is there a detailed schedule for implementing the biodiversity mitigation measures and any other biodiversity protection measure?	
	Are the responsibilities and the budget to implement the mitigation measures clearly defined?	
	Is the Project as described sustainable and implementable in terms of biodiversity? ***Have all significant biodiversity impacts been resolved?***	
	What additional measures or conditions are needed to safeguard biodiversity?	
	Biodiversity Monitoring Plan (Extra focus):	**Comment**
	Does the report provide adequate provisions to monitor biodiversity?	
	Is there an adequate biodiversity monitoring plan (for the Project Developer and for Government Authorities), especially where impacts are uncertain?	
	Are the requirements for biodiversity monitoring outlined, including: ▪ Tasks and frequency? ▪ Operational budget? ▪ Clear institutional responsibilities for each identified task?	
	Is the biodiversity monitoring plan clear, practical, and linked to all the significant biodiversity impacts identified for the design, construction, operation, and decommission phases?	
	Other Biodiversity Monitoring Plan questions: ▪ Were monitoring indicators for biodiversity identified?	

	▪ Was the set of indicators agreed with key stakeholders (e.g., experts, local people, and indigenous people) to measure and manage impacts on biodiversity? ▪ Does the monitoring plan include monitoring, measuring, and reporting on biodiversity management and impacts? ▪ Is there a budget for biodiversity monitoring?	
	Are there provisions to periodically revise the biodiversity monitoring program every 2–3 years, including between the construction phase and the operational phase?	
	Is there an adequate budget to finance the biodiversity monitoring program?	
	Does it provide the means and a procedure to manage un-anticipated adverse biodiversity effects?	
	What additional measures or conditions are needed to facilitate the biodiversity monitoring system of the Project?	
	Consultation:	**Comment**
	Was the biodiversity-focused consultation process adequate? ***Is the consultation plan for biodiversity management and monitoring plan adequate?***	
	Were relevant biodiversity stakeholders at national and local level consulted to: ▪ Set the TORs of the biodiversity plan? ▪ Collect the baseline information? ▪ Identify and evaluate impacts and mitigation measures? ▪ Identify biodiversity management and monitoring measures?	
	Does the biodiversity report provide a list of Consultees & meeting minutes (e.g., a summary of the date/location of the meetings, contact numbers, and the comments made)?	
	Is there a participation plan (with budget) and an explanation of how/when stakeholders (both public and government agencies) will be involved in the biodiversity plan and in the implementation of monitoring?	
	Other Stakeholders' Participation questions: ▪ Have the views of stakeholders been considered on whether the Project site or its surrounding area has important traditional or cultural value? ▪ Have stakeholders helped to identify the uses that people make of biodiversity and to identify any areas of particular importance? ▪ Has local or indigenous knowledge of local biodiversity been assessed? ▪ Has the participation of biodiversity stakeholders been adequate (e.g., during the various stages of the EIA process from screening to public review of the draft reports)? ▪ Are stakeholders involved in the management and monitoring of biodiversity during Project implementation?	
	What additional measures or conditions are needed to facilitate the consultation process on biodiversity during Project implementation?	
3.	**PROJECT-DECISION REVIEW: Should the Project be approved in terms of biodiversity? If yes, under what conditions?**	

Annex 1: List of ecosystem services (from: *Biodiversity in EIA & SEA, 2006*)

Regulating services responsible for maintaining natural processes and dynamics

Biodiversity-related regulating services

- maintenance of genetic, species and ecosystem composition
- maintenance of ecosystem structure
- maintenance of key ecosystem processes for creating or maintaining biodiversity

Land-based regulating services

- decomposition of organic material
- natural desalinization of soils
- development / prevention of acid sulphate soils
- biological control mechanisms
- pollination of crops
- seasonal cleansing of soils
- soil water storage capacity
- coastal protection against floods
- coastal stabilization (against accretion / erosion)
- soil protection
- suitability for human settlement
- suitability for leisure and tourism activities
- suitability for nature conservation
- suitability for infrastructure

Water related regulating services

- water filtering
- dilution of pollutants
- discharge of pollutants
- flushing / cleansing
- bio-chemical/physical purification of water
- storage of pollutants
- flow regulation for flood control
- river base flow regulation
- water storage capacity
- ground water recharge capacity
- regulation of water balance
- sedimentation / retention capacity
- protection against water erosion
- protection against wave action
- prevention of saline groundwater intrusion
- prevention of saline surface-water intrusion
- transmission of diseases
- suitability for navigation
- suitability for leisure and tourism activities
- suitability for nature conservation

Air-related regulating services

- filtering of air
- carry off by air to other areas
- photo-chemical air processing (smog)
- wind breaks
- transmission of diseases
- carbon sequestration

Provisioning services: harvestable goods (production function)

Natural production:

- timber
- firewood
- grasses (construction and artisanal use)
- fodder & manure
- harvestable peat
- secondary (minor) products
- harvestable bush meat
- fish and shellfish
- drinking water supply
- supply of water for irrigation and industry
- water supply for hydroelectricity
- supply of surface water for other landscapes
- supply of groundwater for other landscapes
- genetic material

Nature-based human production

- crop productivity
- tree plantations productivity
- rangeland / livestock productivity
- aquaculture productivity (freshwater)
- mariculture productivity (brackish / saltwater)

Cultural services providing a source of artistic, aesthetic, spiritual, religious, recreational or scientific enrichment, or nonmaterial benefits.

Supporting services necessary for the production of all other ecosystem services

- soil formation
- nutrients cycling
- primary production
- evolutionary processes