Topic 9

Review of EIA quality

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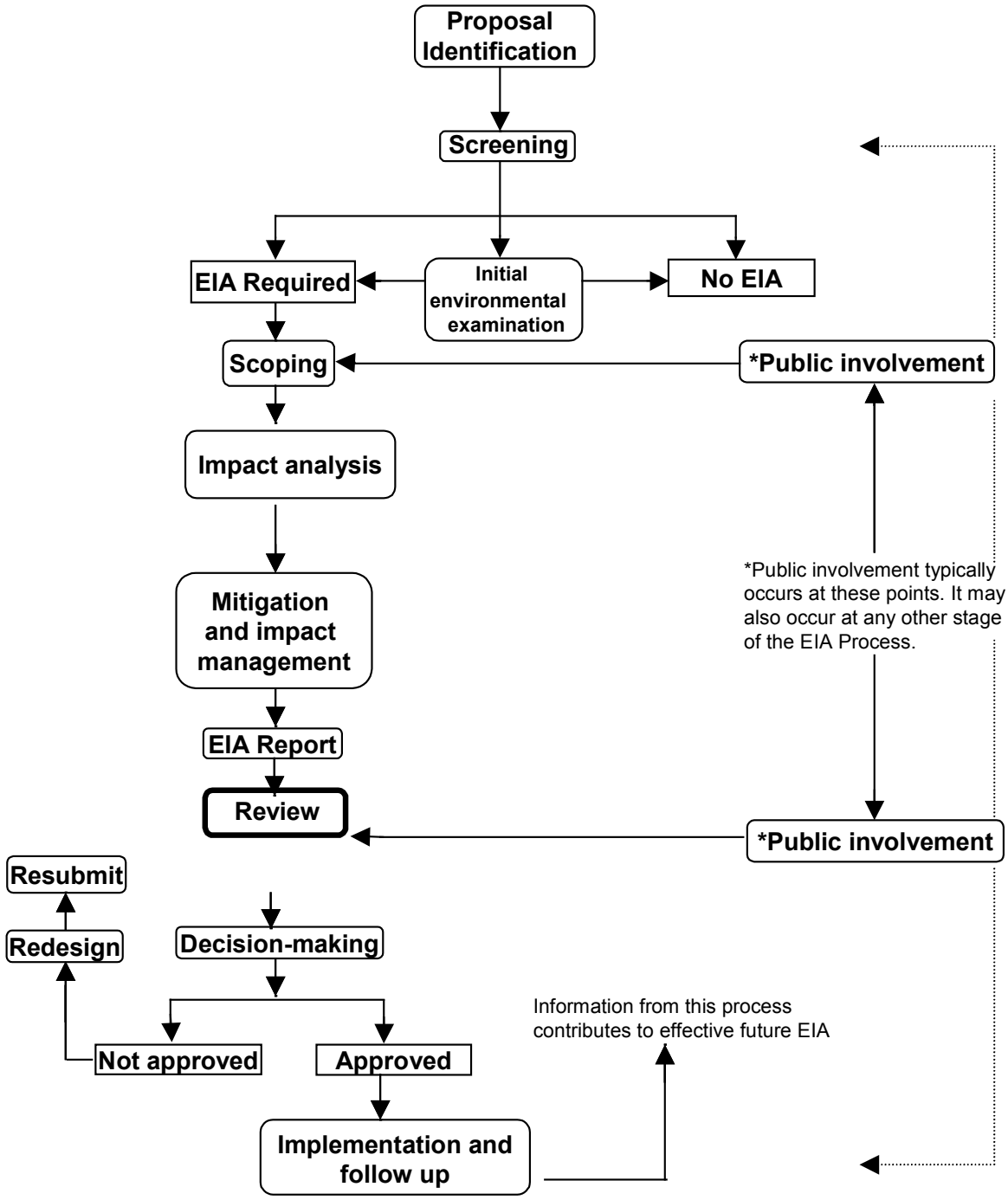


Topic 9—Review of EIA quality

Objectives

To understand the role and contribution of review of the quality of the EIA report.

To gain familiarity with the procedure and methods which are used for this purpose.

Relevance

The review of the quality of an EIA report is one of the main 'checks and balances' built into the EIA process. It helps to ensure the information submitted is credible and sufficient for decision-making purposes. Often, the quality of EIA reports can be significantly improved by review, resulting in more informed approvals and better environmental outcomes.

Timing

Three hours (not including training activity)

Important note to trainers

You should design your presentation with the needs and background of participants in mind, and concentrate on those sections most relevant to your audience. The session presentation timings are indicative only.

Time taken for the training activities can vary enormously depending on the depth of treatment, the existing skills and knowledge of participants and the size of the group.

☑ Information checklist

Obtain or develop the following materials, as appropriate:

- ❑ list of agencies/government departments etc. responsible for review in the local EIA system;
- ❑ review procedure and requirements established in the EIA legislation or guidelines;
- ❑ methods and criteria that are used or could be applied locally to review the quality of EIA reports;
- ❑ examples of reviews of EIA reports carried out locally and their results;
- ❑ outline of a typical public review process and how it is related to decision-making;
- ❑ copies of public submissions or inputs to the review of EIA reports;
- ❑ examples of the system of summarizing and reporting on public submissions on the EIA report;
- ❑ copies of any research focused on the quality of EIA reports;
- ❑ contact names and telephone numbers of people, agencies, organizations and environmental information/data resource centres able to provide assistance in relation to reviewing; and
- ❑ other resources that may be available such as videos, journal articles, list of speakers, and case studies.

Session outline

Welcome participants to the session by introducing yourself and getting them to introduce themselves. Outline the overall coverage of the session, its objectives, and why they are important.


1

The review of the quality of an EIA report is a formal step in the EIA process. It is taken to ensure that the information provided by the report complies with the terms of reference and is sufficient for decision-making purposes. The review stage typically provides the main opportunity for public comment on the statement of significant impacts and their mitigation.

A systematic, open process of review assures decision-makers that the statement of impacts is credible and imparts public confidence in the EIA process. This section describes the objectives, elements and steps that can be applied to promote good practice in the review of EIA reports. Reference is also made to the review procedures operated by different countries.

Introduce the role and purpose of the review process in EIA.


2

The purpose of review is to assure the completeness and quality of the information gathered in an EIA. When undertaken as a formal step, it acts as a final check on the quality of the EIA report submitted to obtain a project authorisation. Often, this process leads to a requirement for additional information on potential impacts, mitigation measures or other aspects.

Key objectives of EIA review are to:

- assess the adequacy and quality of an EIA report;
- take account of public comment;
- determine if the information is sufficient for a final decision to be made; and
- identify, as necessary, the deficiencies that must be addressed before the report can be submitted.

In many EIA systems, the review stage is the major opportunity for public involvement. However, the arrangements for this purpose vary considerably from country to country. They range from notification of a period for receiving written comments on the EIA report to holding public hearings. Typically, the latter mechanism is part of an independent review by an EIA panel or inquiry body, which is considered to be a particularly transparent and rigorous approach.

An interim or prior review of EIA preparation can provide an informal check on the quality of work, to verify that is satisfactory and meets requirements. Normally, this will carried out by the responsible authority. However, the proponent can undertake an internal or 'mock' review of EIA quality as part of due diligence or quality assurance. In this way, proponents can ensure their work is of an appropriate standard before it is subject to external review. This can help to avoid delays associated with the issuance of deficiency statements or requests for additional information.

Briefly outline why it is important to develop a systematic approach to EIA review and discuss the elements and aspects that need to be considered. Ask the group if they can identify others.

A pre-decision review of the EIA report is a key means of 'quality control and assurance' in the EIA process. It allows an external check on the proponent's 'self-assessment' of the proposal. This is a formal procedure in many EIA systems, which may be undertaken by the responsible authority itself, another government agency or committee or an independent body. Despite significant differences, their common function is to check that the draft EIA report complies with applicable requirements and/or is consistent with accepted standards of good practice.

Whatever procedure is followed, a rigorous approach is necessary, given that the central role of EIA review is to assure the quality of the information prepared. This approach can be based on explicit guidelines and criteria for review, or if these are not available, draw on EIA principles, objectives and terms of references. Over time, their systematic application should improve the general standard of EIA reports by making proponents aware of government or agency expectations.

3

The elements of EIA review and the aspects considered differ with the arrangements that are in place in a particular country. A comprehensive review of the adequacy and quality of an EIA report would address many or all of the following issues:

- Does the report address the Terms of Reference?
- Is the necessary information provided for each major component of the EIA report?
- Is the information correct and technically sound?
- Have the views and concerns of affected and interested parties been taken into account?
- Is the statement of the key findings complete and satisfactory, e.g. for significant impacts, proposed mitigation measures, etc.?
- Is the information clearly presented and understandable by decision-makers and the public?

- Is the information relevant and sufficient for the purpose of decision-making and condition setting? The response to the last question is the most significant aspect for review conclusions, and will largely determine whether or not an EIA can be submitted as is or with minor revisions.

Describe the different procedures that can be used to conduct a review of the quality of an EIA report. Consider the process that is applied locally and ask participants to discuss what improvements could be made.

Most EIA systems provide for review of the EIA report. However, the procedures established for this purpose differ considerably, possibly more than for other process elements. The conduct of EIA reviews is based on both informal and formal arrangements. Marked variations exist in their particular requirements, forms of public consultation and the roles and responsibilities of lead agencies.

An issue common to all EIA review procedures is how to ensure objectivity. The responsible authority is widely perceived as having a vested interest in the outcome of review, particularly when it is also the proponent. Checks and balances are introduced by guidance and review criteria, and the involvement of the public and outside experts. More 'arms length', impartial procedures include the use of inter-agency committees or independent panels or tribunals, which are acknowledged as a 'reference standard of good practice' for EIA review.

Specific procedures for EIA review that are in place in different countries are shown in Box 1. In general, these can be divided into two main types:

- *internal review* – undertaken by the responsible authority or other government agency, with or without formal guidelines and procedure; and
- *external review* – undertaken by an independent body, separate from and/or outside government agencies, with an open and transparent procedure for public comment.

4

In many cases, internal review is informal and characterised by:

- relatively low operating costs;
- discretionary guidance on the conduct of review;
- lack of transparency on process and factors considered; and
- absence of documentation on outcomes and results, e.g. advice tendered to decision-makers.

External review procedures are more formal and characterised by:

- higher levels of quality assurance;
- independence from the responsible authority (to varying degrees);

- transparent and rigorous process;
- use of guidelines and/or review criteria and methodology;
- documented outcome or statement on the sufficiency or deficiency of an EIA report; and
- separate commission, panel, inter-agency or expert committee or other review body.

5

Box 1: Selected examples of EIA review procedures

- review by environmental agency (Australia)
- review by independent panel or mediator (Canada, only for major proposals)
- review by standing commission of independent experts (Netherlands)
- review by standing commission of experts within the government (Italy, Poland)
- review by inter-agency committee (USA)
- review by planning authority using government guidelines (UK, New Zealand)

Source: Scholten (1997)

Discuss the different approaches that can be used to seek the views of the public during the review phase of the EIA process. Consider how these might be applied locally.

Public input is an integral means of reinforcing objectivity and assuring the quality of information presented. Many EIA systems provide an opportunity for public review and comment on the information contained in an EIA report.

At a minimum, this requires reasonable time and opportunity for interested parties to comment. More proactive forms of public and stakeholder involvement are preferable, especially when there are significant impacts on a local community or people will be displaced by a proposal. (Further information on public involvement can be found in Topic 3 – *Public involvement*).

A set period for public review and a formal notification procedure are common. The notification usually indicates where the EIA report is displayed and how comments are to be received. Typically, public comments are solicited in writing. However, this approach may exclude many people, including those who are directly affected by the proposal.

Certain countries make provision for a more extended, open review process, using public hearings and other means to gain the views of interested and affected parties on the EIA report. These are usually applied only to large scale and controversial proposals. In other cases less intensive forms of consultation and comment are appropriate. However, in all cases, it is important that these are tailored to the people who are involved.

Describe the steps involved in reviewing an EIA report. Discuss how these steps correlate with the process used locally.

6

The following steps can help to achieve good practice in the review of EIA reports:

- set the scale/depth of the review;
- select reviewer(s);
- use input from public involvement;
- identify review criteria and aspects to be considered;
- carry out the review;
- determine how to remedy any deficiencies; and
- report the findings.

Setting the scale

Two questions should be addressed at the start of a review:

- How much time is available to carry out the review?
- Are the necessary resources available for this purpose?

The answers to these questions will depend mainly on the provision made for review within the EIA system and the Terms of Reference. The nature of the proposal will determine the speed and intensity of the review. More controversial projects, or those with more significant effects, typically require more detailed review. The choice ranges from a quick overview by one person to an in-depth review by a team of experts assembled to do the job.

Selecting reviewer(s)

The environmental issues and the technical aspects of the proposal will determine the expertise required by a review team or individual. For example, the review of an EIA report for a proposal for a solid waste disposal site might include a landfill engineer, a hydro-geologist and an environmental remediation specialist. Depending on the scale of review, administrative support and technical backup may be necessary.

Using input from public comment

Experience with EIA review in a number of countries has shown that public comment is a critical ingredient of good practice. The input from the public has proved to be important in checking and evaluating the quality of the EIA report; for example, with regard to the description of the affected environment and community, the attribution of significance of residual impacts, the effectiveness of mitigation measures and the selection of an alternative.

7

Identifying the review criteria

A systematic review will be based on specified criteria. These criteria can be identified by reference to the following questions:

Are terms of reference or other guidelines available for the review?
If not, the first task of the review is to quickly re-scope the main issues and impacts to be addressed in the EIA report. This can be done with the help of scoping methods (see Topic 5 – *Scoping*).

Are any reviews of EIA reports of comparable proposals in similar settings available?
EIA reports and reviews of comparable proposals in similar settings provide useful points of reference to check the type of impacts that are considered significant and the information that is necessary for decision making. These can be from the country concerned or elsewhere. It is particularly useful to learn about problems experienced during the implementation and operation of the projects. These can give insights to the nature of impacts that are likely to occur during implementation and operation.

Which generic review criteria may be useful?
Generic criteria that may help to carry out an EIA review include:

- legal EIA requirements (if any);
- relevant environmental standards, guidelines or criteria;
- principles of EIA good practice; and
- knowledge of the project and its typical impacts and their mitigation.

When is a comprehensive review appropriate?
A comprehensive review of the quality of an EIA report may be necessary in certain circumstances, for example when there are serious deficiencies in the information assembled. This involves a review of the conduct of the EIA process. Some or all of the elements and aspects listed in Box 1 may require consideration.

In other cases, particular attention could be directed to the executive summary, which is intended to explain the key findings concisely and in a non-technical manner. This is the only part of the EIA report that decision-makers and the public are likely to read. A review can indicate if the information contained in the main body of the report has been communicated simply and accurately.

(Further information on methods for EIA review is given in the next section. A set of criteria to review the quality of EIA reports and the overall process are provided in the resource materials at the end of this topic.)

Box 2: Aspects for consideration in a comprehensive EIA review

- performance of scoping
- accuracy of impact prediction
- criteria used to evaluate significance
- comparison of alternatives
- effectiveness of proposed mitigation measures
- requirements for monitoring and impact management
- modes of public and stakeholder involvement

8

Carrying out the review

The review can be carried out in three steps:

- Step 1: identifies the deficiencies in the EIA report, using the Terms of Reference, relevant guidelines and criteria and information from any comparable EIA reports and their reviews.
- Step 2: focuses on any shortcomings in the EIA report and separate crucial deficiencies, which may directly impede decision-making, from less important ones. If no serious omissions are found, this should be stated clearly. Remarks about less important deficiencies can be placed in an appendix.
- Step 3: recommends how, and when, any serious shortcomings are to be remedied to facilitate informed decision-making and appropriate measures for project implementation.

Determining remedial options

Three remedial options are available when an EIA report fails to meet the standards required. These are scaled to the nature and scope of the inadequacies.

The shortcomings of the EIA report are so serious that they require immediate remedy, either a supplementary or a new EIA report.
In this situation, the review should give a clear statement as to how the additional information can be collected and presented. The review team must realise that the decision-making will be delayed by some time until a new report or supplement to the EIA report is completed.

The shortcomings are not serious and can be rectified by explanatory material attached to the report or conditions attached to the approval.
This situation has the advantage that decision-making can proceed as planned without a major delay necessitated by gathering additional environmental data.

The shortcomings are not major but cannot be remedied immediately, either by providing additional information to the EIA, or in the form of explanations and conditions attached to the decision, because they require too much time and effort to collect.
In this case, the review could recommend monitoring the shortcomings and uncertainties during the implementation and operation of the project. Corrective measures should be identified in case impacts turn out to be worse than expected.

EIA review and the acceptability of the proposal

In some EIA systems, the review stage concerns only the quality and adequacy of the environmental information in the EIA report. Step three as described above concludes the review. Either a statement of sufficiency or deficiency is issued, and in the latter case, serious shortcomings are identified and options to remedy them are described.

A number of countries have review procedures that tender advice on the implications of the findings for decision-making, or make a recommendation on whether or not the proposal should be approved or can be justified on environmental grounds.

In this case, an additional step is added to those mentioned above:

- Step 4: Give either a green (go) or red (stop) or yellow light (conditional acceptance) for the environmental aspects.

This step builds on the previous three steps. It does not address the final decision of whether or not the proposal is acceptable or should be approved. That requires a political decision, taking into account the trade-offs among environmental, economic and social factors (see Topic 10 – *Decision-making)*.

Outline the different review methods that can be used and discuss any methods that have been used locally. Ask what experience the group members have had of these, or other, review methods.

9

A range of methods can be used to review the adequacy of an EIA report. The methods are generally the same as those used in impact analysis and include:

General checklists

These can be adapted to review purposes, using compliance with local EIA legislation or guidelines as the starting point. A range of criteria drawn from the discussion in the section above can then be incorporated. Sectoral checklists represent a further stage of development to review the technical adequacy of EIA reports in terns of their coverage of specific types of

impacts, mitigation measures and monitoring requirements (see review checklist at Handout 9–1).

Project specific checklists and guidelines

These can be based on a general or sectoral checklist, with further adaptations to suit the requirements of the specific project and its terms of reference.

10

EIA review frameworks and packages

A number of these are available. The review package developed by the EIA Centre, University of Manchester is widely referenced and used by non-specialists. It comprises a seven-part rating scale, directions on its use and a collation sheet for recording findings on EIA components, such as baseline information, impact prediction and consideration of alternatives. Other review packages are available and can be adapted for use in cases where guidance and criteria have yet to be established.

Expert and accredited reviewers

One or more experts can be used to peer review the adequacy of the report. The expert(s) contracted should be independent from those involved in preparing the EIA report or undertaking studies. In some countries, EIA experts are accredited or registered as capable of carrying out a study or review.

Public hearings

Public hearings on an EIA report give the highest level of quality assurance. They provide affected and interested parties with an opportunity to comment extensively on the information and findings. These benefits are maximised when public hearings are held by an independent EIA panel, commission or other inquiry body. A structured and systematic process can be followed to test the quality of the report and to integrate technical evidence and public comment.

Comprehensive review of the EIA process

Effectiveness frameworks can be used when a comprehensive review of the EIA process leading to report preparation is considered necessary (see Annex). For example, this approach may be called for if there are very serious deficiencies with a report and each step needs to be revisited. Also, effectiveness review can help our understanding of how different EIA components and activities affect the quality of EIA reports and indicate ways review procedure and criteria themselves may be strengthened. In this regard, effectiveness review can cover the overall performance of the EIA process. Further information on this subject can be found in Topic 11– *Implementation and follow up.*

Introduce and explain the basis of the *Procedures for evaluating EIA Reports* (Handout 9–1).


9-1

Handout 9–1 provides checklists and a flow chart of the steps which may be applied to review the quality of an EIA report. It provides a simple tabular approach to grading the performance of the report in accordance with the criteria. The materials also call for a brief report to be written at the end of the review process. However, it is important to conduct the review as a practical exercise, centered on the requirements that apply and the decision to be made.

Many exercises using EIA frameworks and review packages are conducted as academic exercises, unrelated to the context and circumstances. A common temptation is to be too negative and to grade EIA reports on what ideally should have been done, rather than what was asked for or required. The terms of reference provide the benchmark for critical review. Where they are not available, the review can follow the steps described earlier, including rapid re-scoping and identifying points of reference from comparable EIAs. In addition, reviewers should consider the constraints under which an EIA has been undertaken.

For example, an EIA report might not include baseline information because the data was not available and process deadlines gave insufficient time for the necessary field surveys to be undertaken. Although not good practice, these realities are part of EIA practice in all countries. They can be particularly limiting in many developing countries, where environmental monitoring and information systems are non-existent or poorly developed.

Include a training activity to reinforce the topic (if desired).

Conclude by summarising the presentation, emphasising the key aspects of the topic that apply locally.

Annex 1: Effectiveness framework for review of the process leading to the preparation of the EIA report.

This framework for EIA review comprises a list of questions to check that the EIA process was satisfactorily completed (e.g. in accordance with legal requirements and terms of reference in force) and then consider the quality of the EIA report.

The following rating scale may be used to answer the following questions in detail.

A. excellent (thoroughly and competently performed)

B. good (minor omissions and deficiencies)

C. satisfactory (some omissions and deficiencies)

D. poor (significant omissions and deficiencies)

E. very poor (fundamental flaws and weaknesses)

F. no opinion (insufficient basis/experience on which to judge)

I. EIA process

Were the following activities completed fully and successfully?

a) screening — proposal classified correctly as to level and requirement for assessment?

b) scoping — process completed and resulted in:

i) priority issues and relevant impacts identified?

ii) key actors involved?

iii) reasonable alternatives established?

iv) terms of reference/study guidelines prepared?

c) impact analysis — process completed in scope and depth necessary?

i) affected environment (baseline) conditions described?

ii) estimation and prediction of main impact categories?, including

- indirect and cumulative effects?

- other relevant factors?

iii) suitable database and methodologies used?

d) mitigation — necessary measures or environmental management plan identified?, including

i) follow up and monitoring arrangements if strategies are untried or impacts uncertain?

ii) specification of contingency plans or non-standardised operating responses?

e) significance — residual effects evaluated as to potential severity?, including reference to

i) their scope, duration and irreversibility?

ii) relative importance to dependent communities or ecological functions?

iii) possible compensation or offset mechanisms (also 2d)?

II. Quality of EIS/EIA report

Is the information included consistent with the terms of reference and the process followed? Specifically is the information:

i) complete — informed decision can be made?

ii) suitable — right type of information included?

iii) understandable — easily apprehended by decision maker?

iv) reliable — meets established professional and disciplinary standards?

v) defensible — risks and impact are qualified as to proposal uncertainties?

vi) actionable — provides clear basis for choice and condition setting?

Source: Sadler (1996)

Reference list

The following references have been quoted directly, adapted or used as a primary source for major parts of this topic.

Boyle J and Mubvami T (1995) *Training Manual for Environmental Impact Assessment in Zimbabwe*. Department of Natural Resources, Ministry of Environment and Tourism, Zimbabwe.

Fuller K (1999) Quality and Quality Control in EIA in Petts J (ed) *Handbook of Environmental Impact Assessment.* Volume 2 (pp.55-82). Blackwell Science Ltd Oxford, UK.

Lee N and Colley R (1992) *Reviewing the Quality of Environmental Statements.* Occasional Paper Number 24, EIA Centre, University of Manchester

Sadler B (1996) *Environmental Assessment in a Changing World.* Final Report of the International Study of the Effectiveness of Environmental Assessment. Canadian Environmental Assessment Agency and International Association for Impact Assessment, Ottawa.

Scholten J (1997) Reviewing EISs/EA reports in *Report of the EIA Process Strengthening Workshop* (pp. 61-90) Environment Protection Agency, Canberra.

Further reading

Commission of the European Communities (CEC) Directorate General for Environment, Nuclear Safety and Civil Protection (1993) *Review Checklist.* (CEC) Brussels.

EIA Centre, University of Manchester (1995) *Leaflet 11: Reviewing Environmental Impact Statements*. EIA Centre, University of Manchester, UK.

Training activities

Training activities will be more instructive if they are framed around a local proposal. Consider inviting prospective course participants to make a presentation if they have expertise in this area of EIA.

Discussion themes

9-1 Who has local responsibility for reviewing an EIA report? What other groups or individuals could review the document and what would be achieved if they did?

9-2 As a group, develop a set of criteria to review an EIA report.

9-3 What role do the terms of reference play in the review process?

What are the alternatives if terms of reference are not available?

Speaker themes

9-1 Invite a speaker who has experience in reviewing locally produced EIA reports to outline the review process used and discuss some common failings. Focus some of the group discussion on ways in which both the review process and the quality of EIA reports can be improved.

9-2 Invite a speaker to outline how review processes are managed when an EIA report is produced in compliance with the requirements of international or multiple agencies.

Group Activity 9–1: Review of EIA quality

Title: **Reviewing an EIA report**

Aim: To develop familiarity with the process and issues of reviewing an EIA report.

Group size: Three or four people

Duration: Whole day (depending upon the review procedures used.)

Resources required:

- ❑ An EIA report for each group.
- ❑ Copies of local review procedures or those provided with the manual.

Description of activity:

Each group is to apply the review procedures to evaluate the EIA report they have been given:

- ❑ the review should be accompanied by a brief (three page) summary of the findings;
- ❑ each group should then prepare a 10 minute briefing for the 'Minister for the Environment' on their findings; and
- ❑ present these briefings to the whole group for discussion.

Group Activity 9–2: Review of EIA quality

Title: **Reviewing against the Terms of Reference**

Aim: To understand how the review of EIA reports depends on adequate Terms of Reference, as the basis of review criteria.

Group size: Three or four people

Duration: Whole day (may be less if the background information is not very detailed)

Resources required:

- ❑ A detailed case study including Terms of Reference (ToR) and EIA report for each group.
- ❑ Copies of local review criteria, or those provided with this topic.

Description of activity:

- ❑ Use the criteria provided to assess whether the EIA report was satisfactory against the ToR.
- ❑ Discuss whether any weaknesses in the ToR or review process are apparent as a result of the review.
- ❑ Discuss any further information that could be required before the final decision is taken.
- ❑ Outline any conditions that should be placed on any approval to proceed.
- ❑ As a whole group review the findings of the activity.

1

Flowchart of the EIA process

2

Purpose and objectives of review

The purpose of the review process is to establish if the information in an EIA report is sufficient for decision-making.

Key objectives are to:

- review the quality of the EIA report
- take account of public comment
- determine if the information is sufficient
- identify any deficiencies to be corrected.

3

EIA review – aspects for consideration

- compliance with terms of reference
- information is correct and technically sound
- account taken of public comments
- complete and satisfactory statement of key findings
- information is clear and understandable
- information is sufficient for decision-making

4

EIA review — types of procedure

Internal review:

- low operating costs
- can lack rigour and transparency
- often no documentation of results.

External review:

- independent, expert check on EIA quality
- more rigorous and transparent
- report on sufficiency or deficiency
- publish the review report


5

EIA review procedures

- environmental agency
- independent panel (or mediator)
- standing commission
- inter-agency committee
- planning authority


6

EIA review – steps to good practice

- set the scale of the review
- select reviewer(s)
- use public input
- identify review criteria
- carry out the review
- determine remedial options
- publish the review report


7

EIA review criteria

The following can be used (in order of priority):

- Terms of Reference
- EIA reports of comparable proposals
- other guidance including:
  - EIA requirements, guidelines and criteria
  - principles of EIA good practice
  - knowledge of the project and typical impacts


8

Carrying out the EIA review

A four-step approach can be followed:

- Step 1: identify the deficiencies
- Step 2: focus on critical shortcomings
- Step 3: recommend remedial measures
- Step 4: advise on implications for decision-making

(The last step does not apply in all systems)

9

EIA review methods

- general checklists
- project specific checklists
- review packages
- expert and accredited reviewers
- public hearings
- effectiveness review frameworks

10

A rating scale for EIA review

Rating	Explanation
A	generally well performed, no important tasks left incomplete
B	generally satisfactory and complete, only minor omissions and inadequacies
C	just satisfactory despite omissions and/or inadequacies
D	parts well attempted but must, on the whole be considered just unsatisfactory because of omissions and/or inadequacies
E	unsatisfactory, significant omissions or inadequacies
F	very unsatisfactory, important task(s) poorly done or not attempted
N/A	not applicable, the review topic is not applicable in the context of the project

Procedures for Reviewing EIA Reports

These procedures are based on the work of

Lee, N. and Colley, R. (1990) *Reviewing the Quality of Environmental Statements*. Occasional Paper Number 24. EIA Centre. University of Manchester

and

Boyle, J. and Mubvami, T. (1995) *Training Manual for Environmental Impact Assessment in Zimbabwe*. Department of Natural Resources Ministry of Environment and Tourism, Zimbabwe

Instructions for Reviewing EIA Reports

Background

The following tables provide one approach to reviewing the basic adequacy of the standard of an EIA report. **These tables are not sufficient on their own to fully review a report.** It is recommended that the following steps should also be carried out:

- a check for compliance with legal or donor requirements;
- an assessment of the scientific and technical adequacy of the work; and
- a public review of the work.

This review should be able to be carried out by a person who is familiar with the environmental impact assessment process and the requirements of any local regulations.

Instructions

The review process is outlined on the flowchart on the following page.

There are four review areas, each with a series of review categories.

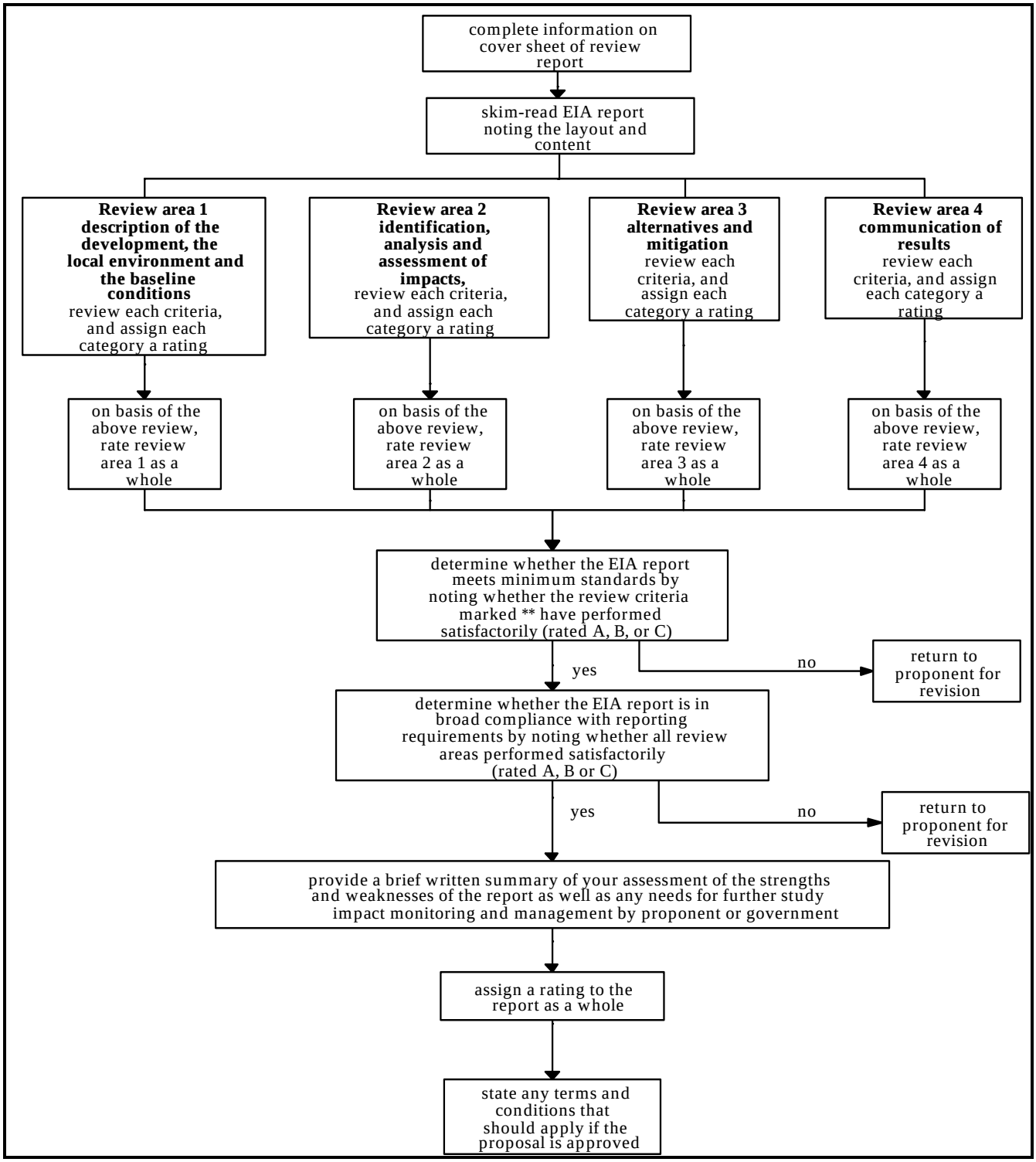
For each review category, the reviewer is asked to rate the EIA report for its performance in addressing a list of issues. The reviewer gives each issue a rating between A and F (see table of review criteria for details). The overall rating for a category is then determined by the reviewer on the basis of the results of the individual ratings, weighted according to their relative importance by the reviewer.

Some issues and categories (marked **) are essential to the overall adequacy of the EIA report. If they do not achieve a minimum rating of C the report should be returned to the proponent for improvement, or, if this is not feasible, other remedial action should be taken as appropriate.

The evaluation of the overall report is determined by the reviewer, based on the ratings of the review categories, again weighted according to their relative importance. Added to this evaluation should be:

- a brief summary of the strengths and weaknesses of the report;
- any needs for further study;
- any impact monitoring and management required to be undertaken by the proponent or the government; and
- any terms and conditions that should apply if approval of the proposal is granted.

Procedures for Reviewing EIA Reports



Review of EIA Report

EIA report title and date:

_____

_____

_____

EIA report reviewed by:

_____

_____

_____

Dates of review:

_____

_____

_____

Review criteria:

Rating	Explanation
A	generally well performed, no important tasks left incomplete
B	generally satisfactory and complete, only minor omissions and inadequacies
C	just satisfactory despite omissions and/or inadequacies
D	parts well attempted but must, on the whole be considered just unsatisfactory because of omissions and/or inadequacies
E	unsatisfactory, significant omissions or inadequacies
F	very unsatisfactory, important task(s) poorly done or not attempted
N/A	not applicable, the review topic is not applicable in the context of the project

Review of EIA Report

Using the review criteria from the previous page, complete the tables on the following pages and then answer the following questions.

1 Minimum requirements

Did **all** the review criteria marked ** in the EIA review tables perform satisfactorily, i.e. rate A, B or C?

YES NO

(If not the report should be returned to the proponent for revision.)

2 Broad compliance

Were **all** four review areas rated satisfactory or better ,i.e. rate A, B, or C?

YES NO

(If not the report should be returned to the proponent for revision.)

3 Overall quality

Overall rating for report	**A B C D E F**

Provide a brief summary of the key factors which determined your overall rating. Include your assessment of the strengths and weaknesses of the report as well as any needs for further study and impact monitoring and management by the proponent or the Government. Pay particular attention to the adequacy of the report based on the requirements of your discipline or agency.

4 Approval terms and conditions

If EIA acceptance of the proposal is granted on the basis of this EIA report what terms and conditions should govern the manner in which the activity proceeds? These can refer to responsibilities of either the Government or the proponent.

Review Area 1

Description of the development, the local environment and the baseline conditions

1.1	**Description of the development: the purpose(s) of the development is adequately described as well as its physical characteristics, scale and design. Quantities of material needed during construction and operation are included and, where appropriate, a description is given of the production processes.**	
1.1.1	The purposes and objectives of the development are adequately explained.	**rating****
1.1.2	The design, size or scale of the development, and the nature and duration of construction and operation activities, are adequately described. Diagrams, plans, charts and/or maps are used effectively for this purpose	**rating****
1.1.3	The report adequately describes the environmental planning that went into the design of the project to minimise negative environmental effects and capture potential benefits.	**rating****
1.1.4	Important design features, especially those for environmental planning and socio-economic management (eg pollution control, waste management, erosion control, handling of toxic or hazardous materials, worker services) are highlighted.	**rating**
1.1.5	There is an adequate indication of the physical presence or appearance of the completed development within the receiving environment.	**rating**
1.1.6	The nature and quantities of material need during both the construction and operational phases are described as well as, where appropriate, the nature of the production processes.	**rating**
1.1.7	The numbers of workers involved with the project during both construction and operation are estimated.	**rating****
Overall grade for category 1.1 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
1.2	**Site description: the on-site land requirements of the development are described, as well as the duration of each land use.**	
1.2.1	The land area taken up by the development site is well defined and its location clearly shown on a map.	**rating****
1.2.2	The uses to which this land will be put are described and the different land use areas demarcated.	**rating**
1.2.3	Where alternate plans, designs or sites are being considered each is adequately discussed according to Criteria 1.2.1 and 1.2.2	**rating**
Overall grade for category 1.2 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		

1.3	**Residuals: the types and quantities of residual and/or waste matter and energy created are adequately estimated, the expected rate of production given, and the proposed disposal routes to the environment identified.**	
1.3.1	The types and quantities of waste matter, energy and residual materials and the rate at which these will be produced, are adequately estimated. Uncertainties are acknowledged and ranges or confidence limits given where possible.	**rating****
1.3.2	The ways in which it is proposed to handle and/or treat these wastes and residuals is indicated, together with the routes by which they will eventually be disposed of to the environment.	**rating****
Overall grade for category 1.3 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
1.4	**Bounding the study: appropriate boundaries to the study area and time horizon are identified.**	
1.4.1	The environment expected to be affected by the development is delimited with the aid of suitable scale map(s).	**rating****
1.4.2	The affected environment is defined broadly enough to include any potentially significant effects occurring away from the immediate project site(s). These may be caused by, for example, the dispersion of pollutants, off-site infrastructure requirements, traffic, etc.	**rating****
1.4.3	The time horizon of the study is long enough to account for delayed effects.	**rating**
Overall grade for category 1.4 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
1.5	**Baseline condition: an adequate description of the affected environment as it is currently, and as it could be expected to develop if the project were not to proceed, is presented.**	
1.5.1	The important components of the affected environments are adequately identified and described. The methods and investigation undertaken for this purpose are disclosed and are appropriate to the size and complexity of the assessment task. An appropriate amount of fieldwork was done. Uncertainties are indicated.	**rating****
1.5.2	Existing data sources were searched and, where relevant, used. These include local authority records and studies carried out by, or on behalf of, government and private sector organisations.	**rating**
1.5.3	Local land use and development plans were consulted and other data collected as necessary to assist in the determination of the probable future state of the environment, in the absence of the project, taking into account natural fluctuations and human activities.	**rating**
Overall grade for category 1.5 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
Overall evaluation of Review Area 1 **A B C D E F**		
Comments		

Review Area 2

Identification, Analysis and Assessment of Impacts

2.1	**Identification of impacts: all potentially significant impacts are identified. Key impact are also identified and the main investigation centred on these.**	
2.1.1	All important issues identified in the EIA terms of reference are included in the report. Deviations and exclusions are adequately accounted for.	**rating****
2.1.2	Direct and indirect impacts are identified using a systematic methodology (e.g. project-specific checklists, matrices, impact networks, expert judgement, extensive consultations). A brief description of the impact identification methods is given along with the rationale for using them.	**rating****
2.1.3	Due attention is paid to environmentally sensitive areas, to off-site, time delayed or recurring (e.g. seasonal) impacts and to cumulative or synergistic effects with existing and anticipated developments.	**rating**
2.1.4	Consideration is not limited to effects which will occur under design operating conditions. Where appropriate, impacts which might arise from non-standard operating conditions, or due to accidents, are also included.	**rating**
2.1.5	All phases of the project are considered e.g. pre-construction, construction, operation and decommissioning.	**rating****
2.1.6	Key impacts were identified and selected for more intense investigation. The scoping methods are described and their use justified.	**rating****
Overall grade for category 2.1 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
2.2	**Analysis of impact severity: the likely impacts of the development on the environment are analysed and described in as precise terms as possible.**	
2.2.1	Impacts are analysed as the deviation from baseline conditions, i.e. the difference between environmental conditions expected if the development were **not** to proceed and those expected as a consequence of it.	**rating****
2.2.2	The data used to estimate the severity of impacts is sufficient for the task and clearly described. Any gaps in the required data are indicated and accounted for.	**rating****
2.2.3	The methods used to predict impact severity are described and are appropriate to the size and importance of the projected disturbance. The assumptions and limitations of the methods are explicitly discussed.	**rating****
2.2.4	Descriptions of impact severity encompass the appropriate characteristics of impact (e.g. magnitude, areal extent, duration, frequency, reversibility, likelihood of occurrence).	**rating**
2.2.5	Where possible, estimates of impacts are recorded in measurable quantities with ranges and/or confidence limits as appropriate. Qualitative descriptions, where necessary, are as fully defined as possible (e.g. 'minor' means not perceptible from more than 100m distance).	**rating**
Overall grade for category 2.2 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		

2.3	**Assessment of impact significance: the expected significance that the projected impacts will have for society are adequately assessed. The sources of quality standards plus the rationale, assumptions and value judgements used in assessing significance are fully described.**	
2.3.1	The significance of all impacts which will remain after mitigation are described and clearly distinguished from impact severity.	**rating****
2.3.2	The significance of impacts is assessed using appropriate national and international quality standards where available. Explicit account is taken of the values placed on affected environmental features locally, nationally and (where appropriate) internationally.	**rating**
2.3.3	The choice of standards, assumptions and value systems used to assess significance are justified and the existence of opposing or contrary opinions acknowledged.	**rating**
2.3.4	Wherever possible, economic values are attributed to environmental costs and benefits.	**rating**
2.3.5	Individuals, groups, communities and government agencies affected by the project are clearly identified.	**rating****
Overall grade for category 2.3 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
Overall evaluation of Review Area 2 **A B C D E F**		
Comments		

Review Area 3

Alternatives and Mitigation

3.1	**Alternatives: project alternatives are considered. These are outlined, the environmental implications of each presented and the reasons for their adoption or rejection briefly discussed.**	
3.1.1	Alternative sites, processes, designs and operating conditions are considered where these are practicable and available to the developer. The main environmental advantages and disadvantages of these are discussed and the reasons for the final choice given.	**rating****
3.1.2	Where possible, alternative construction strategies (e.g. timing, local versus imported labour) are considered and assessed for their environmental and socio-economic implications.	**rating**
3.1.3	For public sector proposals, alternative means of achieving project goals are considered (e.g. energy efficiency investments versus dams for energy supply). If not, the report discusses why this was not done.	**rating**
Overall grade for category 3.1 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
3.2	**Scope and effectiveness of mitigation measures: all significant adverse impacts are considered for mitigation. Evidence is presented to show that proposed impact management measures will be appropriate and effective.**	
3.2.1	Concerned stakeholders (e.g individuals, groups, communities, government agencies) have been adequately consulted and their views accounted for in the development of mitigation measures.	**rating****
3.2.2	The mitigation of all significant adverse impacts is considered. Wherever possible, specific mitigation measures are defined in practical terms (e.g. costs, manpower, equipment and technology needs, timing).	**rating****
3.2.3	Any residual or unmitigated impact are discussed and justification offered as to why these impacts should not or cannot be mitigated.	**rating**
3.2.4	It is clear to what extent the mitigation methods will be effective. Where effectiveness is uncertain or depends on assumptions about operating procedures, climatic conditions, etc data is introduced to justify the acceptance of these assumptions.	**rating**
3.2.5	An effective environmental monitoring and management plan is presented to deal with expected; possible but uncertain; and unforeseen impacts caused by the project. Training needs are identified. The costs of the programme are estimated. Developer and government responsibilities are distinguished, reporting and review procedures are specified.	**rating****
Overall grade for category 3.2 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
3.3	**Commitment to mitigation: the project proponent clearly expresses a commitment to, and capability of, carrying out the mitigation measures.**	
Overall grade for category 3.3 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
Overall evaluation of Review Area 3 **A B C D E F**		

Comments

Review Area 4

Communication

4.1	**Public involvement: there were genuine and adequate consultations with concerned project stakeholders to inform them of the project and its implications and to obtain their views on key issues to be investigated and managed. The scope and results of the public involvement program are adequately documented in the report.**	
Overall grade for category 4.1 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
4.2	**Layout: the layout of the report enables the reader to find and assimilate information easily and quickly. External data sources are acknowledged.**	
4.2.1	There is an introduction briefly describing the project, the aims of the environmental assessment and how those aims are to be achieved.	**rating**
4.2.2	Information is logically arranged in sections or chapters and the whereabouts of important data is indicated in a table of contents or index. Terms of reference and data used in the assessment are included in appendices. The study team members are identified.	**rating** **
4.2.3	When data, conclusions or quality standards from external source are introduced, the original source is acknowledged at that point in the text. A full reference in included in a footnote or in a list of references.	**rating**
Overall grade for category 4.2 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
4.3	**Presentation: care is taken in the presentation of information to make sure that it is accessible to the non-specialist.**	
4.3.1	Information is comprehensible to the non-specialist. Tables, graphs and other graphics are used as appropriate. Unnecessarily technical or obscure language is avoided. Technical terms, acronyms and initials are defined, either when first introduced in the text or in a glossary.	**rating** **
4.3.2	The report is presented as an integrated whole. Data presented in appendices is fully discussed in the main body of the text.	**rating**
Overall grade for category 4.3 **A B C D E F** *(note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		

4.4	**Emphasis: information is presented without bias and receives the emphasis appropriate to its importance in the context of the project.**	
4.4.1	Prominence and emphasis is given to all potentially significant impacts, both adverse and beneficial, in a balanced manner.	**rating****
4.2.2	The statement is unbiased and does not lobby for any particular point of view.	**rating**
Overall grade for category 4.4 **A B C D E F** *(note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
4.5	**Non-technical summary: there is an adequate non-technical summary outlining the main conclusions and how they were reached.**	
4.5.1	There is an adequate non-technical summary of the analysis and main findings of the study. Technical terms, lists of data and detailed explanations of scientific reasoning are avoided.	**rating****
4.5.2	The summary is comprehensive, containing at least a brief description of the project and the environment, an account of the main impacts and mitigation measures to be undertaken by the developer, and a description of any remaining or residual impacts. A brief explanation of the methods by which information and data were obtained, and an indication of the confidence that can be placed in them, is also included.	**rating**
Overall grade for category 4.5 **A B C D E F** *(Note criteria marked ** must be rated A, B or C for the category to be satisfactory, if not, return report to proponent for revision)*		
Comments		
Overall evaluation of Review Area 4 **A B C D E F**		
Comments		