

## MESSAGE FROM THE PRESIDENT

The "Manual on the Canadian Environmental Assessment Act for the Canada Fund and Mission-Administered Funds" is designed to assist field staff to integrate environmental assessment principles and procedures into small-scale development projects. This Manual is premised on the objective of supporting sustainable development in developing countries by reducing poverty and contributing to a more secure, equitable and prosperous world.

Through its commitment to exercise leadership internationally in environment, Canada seeks to achieve sustainable development by conserving and enhancing environmental quality and by encouraging and promoting economic development that conserves and enhances environmental quality. The *Canadian Environmental Assessment Act* sets out a process for integrating environmental factors into project planning and decision-making processes in a manner that promotes sustainable development.

This Manual reflects Canada's commitment, articulated in its foreign policy statement "Canada in the World", to undertake environmental assessments in conformity with the *Canadian Environmental Assessment Act (CEAA)*. It provides practical guidance on how to meet the spirit and intent of the CEAA within the context of the Canada Fund and other Mission-administered funds.

The information contained in this Manual will inevitably require updating as field operations and environmental assessment practices evolve. I encourage readers to assist in this process by informing us how the manual can be improved and made more relevant to your needs.

The Canada Fund has long been recognized as a consistently successful program. It is our hope that the integration of environmental assessment procedures will further enhance the effectiveness of this program in the delivery of Canada's Official Development Assistance.

Huguette Labelle

## TABLE OF CONTENTS

	Page
<b>1.0 PURPOSE OF THIS MANUAL</b>	<b>1</b>
<b>1.1 The Canadian Environmental Assessment Act</b>	<b>1</b>
<b>2.0 THE REQUIREMENTS OF THE CEAA: AN OVERVIEW</b>	<b>2</b>
<b>2.1 Preliminary Assessment Form</b>	<b>2</b>
<b>2.2 Environmental Screening Report</b>	<b>2</b>
<b>2.3 Using a Local Environmental Assessment Process</b>	<b>3</b>
<b>3.0 THE PUBLIC REGISTRY</b>	<b>4</b>
<b>4.0 RECOMMENDED ROLES AND RESPONSIBILITIES</b>	<b>5</b>
<b>5.0 IN PRACTICE</b>	<b>6</b>
<b>5.1 Definition of Project</b>	<b>6</b>
<b>5.1.1 Application of the CEAA</b>	<b>6</b>
<b>5.2 Exclusion from Environmental Screening</b>	<b>7</b>
<b>5.3 Meeting the Requirements of the CEAA</b>	<b>8</b>
<b>5.3.1 Completing the Preliminary Assessment Form</b>	<b>8</b>
<b>5.3.2 Completing the Environmental Screening Report Form</b>	<b>10</b>
<b>6.0 PRACTICE MAKES PERFECT</b>	<b>15</b>
<b>7.0 GETTING ASSISTANCE</b>	<b>15</b>
<b>GLOSSARY</b>	<b>17</b>

## TABLE OF CONTENTS

<b>APPENDIX A:</b>	<b>List of Projects Excluded from the CEAA</b>
<b>APPENDIX B:</b>	<b>Clause for Contribution Agreements involving an Environmental Assessment Process other than the CEAA</b>
<b>APPENDIX C:</b>	<b>Standard Format for Year-End Public Registry Report</b>
<b>APPENDIX D:</b>	<b>Environmental Assessment Forms</b>
<b>APPENDIX E:</b>	<b>Example of Completed Environmental Assessment Forms</b>
<b>APPENDIX F:</b>	<b>Sample Mitigation Measures and Environmental Design Criteria</b>
<b>APPENDIX G:</b>	<b>Generic Terms of Reference (TORs) for Environmental Assessment</b>

The Government of Canada confirmed its commitment to the Canadian Environmental Assessment Act in its foreign policy statement, *Canada in the World*.

Environmental assessment is a valuable process to support sustainable development

The CEAA complements CIDA's Policy for Environmental Sustainability released in 1992.

## 1.0 PURPOSE OF THIS MANUAL

The purpose of this manual is to help Canadian High Commissions and Embassies to apply the environmental assessment process outlined in the Canadian Environmental Assessment Act (CEAA). In particular, this manual will assist the **Head of Mission, Head of Aid, Fund Co-ordinator, Program/Field Support Unit (P/FSU)**, and others involved in the Canada Fund and other Mission-Administered Funds to integrate environmental assessment procedures into project planning and decision-making.

After reading this manual, you should be able to understand your role in environmental assessment and be able to:

- determine if the proposal meets the definition of "project" contained in the CEAA, and thus requires an Environmental Screening Report
- decide if the project is excluded from environmental screening
- apply the environmental screening process when required
- determine whether environmental mitigation measures are necessary
- maintain records relating to the environmental screening
- incorporate environmental factors into project follow-up and monitoring

Where an Environmental Screening Report has been conducted, its results can also be documented in item 12 on the Project Approval Document (PAD), "Impact on the Environment". If an environmental screening is not required under the CEAA, item 12 describes the results of the environmental analysis conducted according to CIDA's Bilateral Roadmap, if applicable.

## 1.1 THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT

Promulgated by the Canadian Parliament in January 1995, the CEAA promotes development that conserves and enhances environmental quality within and outside of Canada. Under the CEAA, Missions/Embassies must complete a Preliminary Assessment to determine whether the preparation of an Environmental Screening Report is required. Environmental assessment (EA) is an essential process for integrating environmental considerations into Mission/Embassy activities and promoting project sustainability. Environmental protection is identified by the Government of Canada as one of the six priorities guiding Official Development Assistance (ODA).

When considering funding a proposal, the environmental assessment process set out in the CEAA asks you to:

- determine if the proposed project is subject to the CEAA and, if yes
- identify potentially adverse environmental effects
- determine the significance of these effects
- identify measures to reduce or eliminate adverse effects
- integrate environmental considerations into project follow-up
- involve the local public in the environmental screening where appropriate

Experience demonstrates that, globally, approximately 30% of Canada Fund projects will require an environmental screening under the CEAA

In general, environmental assessment helps to ensure:

- environmental considerations are integrated into project planning and implementation
- ecological functions are safeguarded
- accountability for adverse environmental effects
- efficiency and cost effectiveness of projects
- openness and public participation

## 2.0 IMPLEMENTATION OF THE CEAA: AN OVERVIEW

### 2.1 Preliminary Assessment Form

The purpose of the Preliminary Assessment Form is to determine, based on three criteria, whether an Environmental Screening Report is required. The criteria are:

- the Embassy/Mission is (1) providing any form of financial assistance to enable the proposal to be carried out in whole or in part, (2) granting an approval, permit or licence, (3) acting as a proponent, or (4) selling, leasing or disposing of federal lands.
- the proposal is considered a "**project**" as defined in the CEAA.
- the project is **not** excluded from environment assessment by way of the Exclusion List regulation or because of an emergency. See section 5.2 for information on projects excluded from environmental screening under the CEAA. **Appendix A** contains a list of projects excluded from the CEAA.

This Preliminary Assessment begins to document information relevant to the project. To enable you to complete the Preliminary Assessment Form, applicants should be encouraged to provide the essential details of the proposed project (e.g. project duration, location, and the nature and scale of activities). In cases where the essential details of the projects to be funded by the Mission/Embassy cannot be known prior to disbursement, such as projects supported by revolving credit loans, refer to section 2.3.

## **2.2 Environmental Screening Report**

The main objectives of the Environmental Screening Report are to:

- identify and examine the environmental effects of the proposed project
- determine the likely significance of the environmental effects
- identify appropriate mitigation measures to reduce, eliminate, compensate for, or control these effects
- encourage public participation in the development of the proposed project and the environmental screening
- determine whether environmental follow-up and monitoring is required

### 2.3 Using Another Environmental Assessment Process

Where the essential project details (e.g. location, nature of project activities) cannot be known prior to project approval, such as projects supported by revolving loan funds administered by local partners, the CEAA requires that an assessment of the environmental effects be conducted as early as practicable in the planning stages of those projects.

Local partners who administer revolving loan funds are obliged by the Mission/Embassy to ensure that an assessment of environmental effects of projects supported by the fund takes place as early as is practicable.

The assessment of the environmental effects of those projects must be conducted in accordance with either (1) the CEAA, (2) a local environmental assessment process, or (3) another recognized environmental assessment process agreeable to all parties. Note that options (2) and (3) apply only if the environmental assessment process is deemed consistent, as far as is practicable, with the requirements of the CEAA. Also note that if option (1) is selected, completion of the Environmental Screening Report Form is required. Options (2) or (3) do not require completion of this form as an environmental assessment process other than the CEAA will be used.

To be deemed consistent with the requirements of the CEAA, the environmental assessment process to be applied must, as far as is practicable:

- apply to similar types of projects which are subject to the CEAA.
- be applied as early in planning stages of the project as possible once the essential details of the project become known.
- consider various factors, including the effects of the project on the physical and socio-economic environment, the effects of the environment on the project, the cumulative effects of the projects, and possible measures designed to mitigate adverse environmental effects.
- encourage, to the extent possible, public participation in the environmental assessment process and ensure that the public is informed of the results of the assessment.

For revolving loan funds, or other arrangements where the essential project details will not be known prior to disbursement, Missions/Embassies must ensure that the clause listed in **Appendix B** is inserted in the contribution agreement with the local partner.

Note that for projects where the essential details are known prior to entering into a financial agreement, only the CEAA process is valid.

Each Mission/Embassy must keep copies of any documents relating to the Environmental Screening Report in the project file.

### 3.0 THE PUBLIC REGISTRY

The CEAA acknowledges that the public has a right to know about a project's environmental effects. For all projects that undergo an Environmental Screening, the Mission/Embassy must maintain a Public Registry of environmental assessment records for these projects. Kept in the project file, the purpose of this registry is to document the environmental assessment process as applied in the field.

The Public Registry should include all records produced, submitted or collected with respect to the environmental assessment (including the Preliminary Assessment Form and the Environmental Screening Report Form). Additional records to be included in the Public Registry may include correspondence, memorandums, maps, books, diagrams, photography, videotape or other documentary material produced, collected or submitted with respect to the environmental screening of the project. The Public Registry shall be retained for a period of five years.

In practice, the Public Registry is a separate folder included in each project file which contains records specific to the environmental screening of the project. Note that the maintenance of a Public Registry is required only in cases where an Environmental Screening Report has been conducted for a project. Therefore, environmental assessments conducted under a local process, as described in section 2.3, need not be included in a Public Registry.

CIDA will request annually, as part of its Year-End Report of projects supported by Missions and Embassies, a listing of the projects included in the Public Registry. This listing will be included in the central Public Registry at CIDA, to which the public has convenient access.

The standard format for the annual public Registry Report to CIDA is described in **Appendix C**.

#### 4.0 RECOMMENDED FRAMEWORK FOR ROLES AND RESPONSIBILITIES

Missions/Embassies are encouraged to define within their organization the responsibilities for environmental assessment. Following is a recommended framework outlining the roles of different staff at the Mission/Embassy. Please note that the respective roles and responsibilities of staff may differ according to how each development fund is administered.

##### Head of Mission / Ambassador

- Overall accountability to the President of CIDA for the implementation of the Canadian Environmental Assessment Act for Canada Fund projects.

##### Head of Aid

- Accountable for the implementation of the CEAA for all projects supported by mission-administered development funds, other than the Canada Fund (e.g. WID, private sector development funds, environment funds).
- Promote training of staff to implement the CEAA and CIDA's Policy for Environmental Sustainability.
- Ensure that all projects recommended for approval have been subject to a Preliminary Assessment to determine whether the CEAA applies, and if yes, that an Environmental Screening Report has been prepared and approved.
- For each Environmental Screening conducted under the CEAA, ensure that all documents relating to the environmental screening are included in the project file located at the Mission/Embassy.

##### Fund Co-ordinator

- Preparation of the Preliminary Assessment Form and, if appropriate, the Environmental Screening Report Form for signature by the Head of Aid (or other representative of the Government of Canada).
- As authorized by the Head of Aid, the Fund Co-ordinator may seek assistance on environmental screenings from various sources (e.g. P/FSU, local expertise, Environment Specialists/Advisors at CIDA).
- In collaboration with the P/FSU as appropriate, conduct project monitoring to review the effectiveness of the environmental screening and the efficiency of any measures which were implemented to minimize the project's potentially adverse environmental effects.
- Insertion of the clause listed in Appendix B into the contribution agreement with the recipient for revolving loan funds or other cases where the essential project details are not known prior to project approval by the Mission/Embassy.

##### Program/Field Support Unit (P/FSU)

- As requested, assist the Head of Aid, Fund Co-ordinator and other staff by providing advice on environmental management and assessment relating to Mission-administered projects.

##### Branch Environment Specialist/Advisor at CIDA

- As requested, assist the Head of Aid, Fund Co-ordinator, and other staff to implement the CEAA through the provision of advice and training.

Note: For Missions /Embassies without CIDA officers, government of Canada employees may use this manual for guidance in applying the CEAA. In these cases, lines of authority should be identified in accordance with their federal department's procedures for the CEAA.



## 5.0 IN PRACTICE

Section 5 describes essential information to assist you in applying the Canadian Environmental Assessment Act to the Canada Fund and other Mission-administered funds. This section guides users on how to complete the environmental assessment forms and presents critical environmental factors which should be considered during the project planning process.

### 5.1 Definition of Project

Under the CEAA, for the purposes of the Canada Fund and other Mission-administered funds, a project means:

- any proposed construction, operation, modification, decommissioning, abandonment or other such undertaking in relation to a physical work or structure.

Note that the current **Inclusion List Regulation** describes physical activities not relating to a physical work which also meet the definition of "project" under the CEAA, and thus require an environmental screening. At present, this regulation is not applicable to projects typically administered by Missions/Embassies.

Refer to the Glossary at the end of this Manual.

Project proposals which involve constructing, operating, modifying, decommissioning, abandoning or disposing may be considered projects under the CEAA.

#### 5.1.1 Application of the CEAA

The Missions/Embassies must use judgement to decide whether a proposal qualifies as a "project" under the CEAA. To illustrate, the following would likely be considered projects under the CEAA:

- renovating a resource centre
- reconstructing a school
- constructing or rehabilitating an irrigation system
- building a road
- drilling a water well
- disposal of waste from a manufacturing facility
- supplying materials for constructing a grain silo
- providing equipment to rehabilitate, operate or expand a factory
- building, renovating or expanded a waste treatment facility
- disposing of chemical by-products from a textile facility

The following types of proposals would not be considered "projects" under the CEAA, and therefore would not require an Environmental Screening Report:

- sponsoring attendance at a conference
- training individuals in midwifery
- publishing a newsletter
- purchasing computer equipment
- consultations on community forestry

In some cases, it may not be clear if the proposal meets the definition of "project" contained in the CEAA. In such instances, you should contact an information source listed at the end of this manual.

You should seek advice from an environmental advisor if you are considering funding a proposal which:

- alters a stream, river or lake, particularly if heavy machinery is to be used (for example, constructing a bridge or a docking facility)
- involves constructing or altering dams, dikes or reservoirs
- is associated with pulp and paper production
- involves potentially polluting substances (e.g. textile dyes, noxious chemicals, pesticides)
- may produce significant amounts of solid or liquid waste
- may alter local wildlife habitat

## 5.2 Exclusion from Environmental Screening

Although you may define a proposal as a "project" according to the CEAA, under the **Exclusion List Regulation**, a number of projects do not require an environmental screening due to the insignificance of their likely environmental effects. The following are examples of projects most likely to be submitted to the Mission/Embassy which are excluded from an environmental assessment:

- modifying an existing culvert which is not connected to a water body and neither crosses under a railway or road, nor is within the existing railway right-of-way
- regular maintenance or repair of an existing physical work such as a factory or treatment centre
- demolishing small buildings located more than 30 metres from a water body
- temporary exhibition or field structures
- wheel chair access facilities
- improving an existing sidewalk, boardwalk or fence
- constructing small signs or notice boards (less than 25m<sup>2</sup>)
- constructing or installing a building with a footprint less than 100m<sup>2</sup> and a height less than 5m that would not be within 30 metres of a water body, nor involve the release of a polluting substance

Moreover, an environmental assessment is not required for projects to be carried out in response to an emergency, and carrying out the project forthwith is in the interest of preventing damage to property or the environment, or is in the interest of public health and safety.

Refer to **Appendix A** for a list of projects excluded from the CEAA.

Environmental assessment forms can be obtained from your branch at CIDA or photocopied from Appendix D in this Manual.

## 5.3 Meeting the Requirements of the CEAA

CIDA has developed two forms to facilitate the implementation of the CEAA for projects supported by the Canada Fund and other Mission-administered funds.

### (1) Preliminary Assessment Form

### (2) Environmental Screening Report Form

These forms help to ensure that a number of environmental considerations are integrated into the proposal, and serve as a record of project decisions as required by the CEAA. The forms are included in **Appendix D** of this Manual for reference. For illustrative purposes, **Appendix E** contains an example of the completed forms.

The remainder of the manual will help you to complete each of the forms. In many cases, the information requested is self-evident. This manual tries to anticipate questions that might arise while completing the forms.

The Mission/Embassy should obtain the essential details of the proposal before completing Form 1 and Form 2 (if required). Although this information may be part of the proposal, you may have to contact the applicant for more project details such as the nature of all project activities, project location and duration, and the need for the project. Experience will help you to judge when you have enough information to proceed with the evaluation of the proposal.

In general, take the following approach to meet the requirements of the CEAA:

- upon receipt of an application, open a project file which includes the application and the environmental assessment forms
- contact the applicant if information pertaining to the environmental effects of the project is incomplete, if the potential effects are poorly considered, or if opportunities exist to better integrate environmental considerations into the proposal
- ensure that the applicable environmental assessment forms are completed before taking a decision on project approval

- collect all information pertinent to any decisions regarding the proposal, including records relating to the environmental screening.

### **5.3.1 Completing the Preliminary Assessment Form**

The purpose of the Preliminary Assessment Form is to document and describe the proposed initiative, and decide whether an Environmental Screening Report is required. The Mission/Embassy must complete this form once knowledge of the proposed project is sufficient to determine whether the CEAA applies. Following are details instructions on how to complete the form.

## SECTION A: GENERAL INFORMATION

The Mission/Embassy must complete this section for all proposed projects. The proposal title and project number are assigned by the Mission/ Embassy. When this section is complete, the same details should be used for the Environmental Screening Report if it is required.

## SECTION B: DESCRIPTION OF PROPOSAL

- 1. Short Description:** provide a short description of the proposal on the lines provided.
- 2. Primary Undertaking(s):** check all applicable boxes to identify the primary undertaking (e.g. building a school would be listed as "construction"; adding a school room or hospital wing would be listed as "modification" or "expansion"). If no boxes apply, check "none of the above."
- 3. Sector(s):** check all appropriate boxes that best describe the sector of the project (e.g. building a school could be listed as "institutional").

## SECTION C: DOES THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT APPLY?

The purpose of this section is to determine whether the project requires an Environmental Screening Report.

### 1. Does the proposed initiative include a "project" as defined in the CEAA?

The Mission/Embassy must decide whether the proposal is, or contains, a project as defined in the CEAA. If you have answered "none of the above" to question 1 in Section B, then answer "no" to this question and proceed immediately to Section D.

If you have checked any of the other boxes in response to question 1 in Section B, answer "yes" and then briefly specify what the undertaking involves.

If the essential project details (e.g. location, scope of activities) cannot be known prior to entering into a financial arrangement with the local partner, as in the case of revolving loan funds, the Mission/Embassy must ensure that an assessment of the project's environmental effects takes place as early as is practicable by the local partner. The assessment may be conducted under (1) the CEAA, (2) a local process consistent with the CEAA, or (3) another assessment process consistent with the CEAA and agreeable to all stakeholders. Specify which environmental assessment process will be applied, then proceed to section E.

### 2. Is the Project Excluded from the CEAA?

Once you have determined that the proposal involves a "project" as defined in the CEAA, the project may be excluded from an environmental screening if it is listed in the Exclusion List Regulation (see **Appendix A**) or is being carried out in response to an emergency. See Section 5.2 for clarification. If you have answered "yes" to question 1 and "no" to question 2, an Environmental Screening Report is required.

## **SECTION D: APPROVAL OF THE PRELIMINARY ASSESSMENT**

Check the appropriate box, based on the answers to Sections B and C, as to whether an Environmental Screening Report is required.

The Preliminary Assessment Form may be completed by Mission/ Embassy staff, locally engaged staff or other agents who are assigned this task and are familiar with environmental assessment. However, because this form is used to determine whether the CEAA applies, Canadian legal procedures recommend that the form be approved by a representative of the Government of Canada (e.g. Head of Aid, Development Officer or other Canadian staff).

The Preliminary Assessment Form is inserted in the project file.

### **5.3.2 Completing the Environmental Screening Report Form**

The primary purpose of the Environmental Screening Report Form is to consider the potential environmental effects of the project. The level of effort for the environmental screening will vary depending on the circumstances of the proposed project, the environmental conditions where the project is to be located, and the likely severity of adverse environmental effects caused by the project.

Where feasible, the Environmental Screening Report Form may be distributed to applicants for completion as part of the regular application procedure of the Mission/Embassy. In other cases, the screening report may be completed by Mission/Embassy staff, the Program or Field Support Unit (P/FSU), or other persons commissioned to provide environmental advice.

Although completing the Environmental Screening Report may not be required for all proposals, Missions/Embassies have the discretion to request applicants to complete the screening form to familiarize them with this new requirement, and to promote capacity development in environmental management. This approach will help to ensure that environmental considerations are integrated into all proposed projects as required under CIDA's *Policy for Environmental Sustainability*.

Note that applicants may submit a separate environmental screening report in place of Form 2. However, the Mission/Embassy must ensure that this alternate report adequately responds to all questions outlined in the Environmental Screening Report Form. Moreover, Section C of the Environmental Screening Report Form must still be completed by the Mission/Embassy and placed in the project file.

**SECTION A: GENERAL INFORMATION**

This box should reflect the information provided in Section A of the Preliminary Assessment Form.

**SECTION B: ENVIRONMENTAL SCREENING**

**1. What are the potential environmental effects of the project?**

To answer this question, consider the project's effects on land, air and water from both a positive and negative perspective. For each category, consider:

Potential effects ►	Land	Air	Water	Biota (flora/fauna)
<b>Does the project:</b> Physically alter habitat by? <ul style="list-style-type: none"> <li>• digging</li> <li>• excavation</li> <li>• changing water levels</li> <li>• altering natural wildlife corridors</li> <li>• constructing buildings</li> </ul>	✓		✓	✓
Reduce or increase harvesting of natural resources? <ul style="list-style-type: none"> <li>• cutting trees</li> <li>• poaching</li> <li>• new access to wildlife areas</li> <li>• increased access to woodlots</li> <li>• extraction of fisheries resources</li> </ul>	✓		✓	✓
Erode soil? <ul style="list-style-type: none"> <li>• alter slopes</li> <li>• remove trees</li> <li>• overwatering</li> <li>• deplete agriculture land</li> <li>• remove vegetation</li> </ul>	✓		✓	✓
Involve the release of potentially polluting substances? <ul style="list-style-type: none"> <li>• pesticides</li> <li>• textile dyes, paints</li> <li>• sewage</li> <li>• excess fertilizer</li> </ul>	✓	✓	✓	✓
Involve disposal of significant amounts of solid or liquid waste? <ul style="list-style-type: none"> <li>• construction materials</li> <li>• processing waste</li> <li>• tannery residue</li> <li>• livestock waste</li> </ul>	✓	✓	✓	✓
Increase reliance on non-renewable types of fuels or resources?	✓	✓	✓	✓
Involve other activities potentially harmful to the environment?	✓	✓	✓	✓

Will the project's environmental effects cause any negative changes to socio-economic conditions and quality of life?

Does the project effect:	Yes/No	If yes, how?
Human and livestock health?		
Socio-economic conditions? <ul style="list-style-type: none"> <li>• income</li> <li>• gender relations and equity</li> <li>• access to essential services</li> </ul>		
Cultural and natural heritage resources? <ul style="list-style-type: none"> <li>• important community lands</li> <li>• heritage sites</li> </ul>		

Populations and communities?

- traditional use of resources
- religious/cultural sites

Other?

## 2. What environmental effects may occur as a result of accidents or malfunctions relating to the project?

To answer this question, consider the following factors:

- what kinds of accidents may occur (e.g. oil or chemical spills)?
- how frequently are these accidents to occur (e.g. once a month, once a year)?
- how might natural events (e.g. weather, floods, fires) impact on the project?
- what new environmental effects could arise as a result of an accident or a natural event?

## 3. What cumulative environmental effects are likely to result from the project?

The purpose of this question is to determine what additional environmental effects are likely to result from the project in combination with other projects or activities that have been or will be carried out. As an example, aside from the direct impacts on the shoreline of a water body, building a bridge may also affect fish movement, alter water temperature, or result in increased soil erosion. The environmental effects of building a bridge in combination, for example, with the construction of a nearby tannery, could produce adverse cumulative environmental effects which may cause more stress of fish populations than each project would in isolation. When considering the cumulative environmental effects, ask the following questions:

- is the proposed project in a developed area or is this a new development?
- does the project interact negatively with other activities and projects?
- are there already efforts being taken in the project area to reduce the environmental effects of human activities and development?

**4. What measures will be taken to reduce, control, compensate for, or eliminate the project's adverse environmental effects?**

There are many measures which can be implemented to help minimize a project's environmental effects. Actual measures will depend on the nature and location of the project. **Appendix F** lists examples of measures used to reduce, control, compensate for, or eliminate adverse effects. These measures may also be used as environmental design criteria.

**5. What environmental effects may continue to occur after the measures described in question 4 are implemented?**

Reassess the environmental effects of the proposed projects assuming the measures outlined in question 4 are put in place. Consider the following factors:

- how long will the effects last?
- are the effects small and recurring?
- are the effects reversible if they become a growing concern?
- based on previous experience, how effective are the measures to be undertaken at minimizing the project's potentially adverse effects?

**6. Describe public comments about the project and/or how the public was involved in preparing the Environmental Screening Report:**

In most cases, projects funded by Missions/Embassies respond to community needs identified by the community itself. Past experience has demonstrated that public review can uncover environmental effects that may not have been anticipated during the preparation of the Environmental Screening Report. In other cases, the public may participate directly in the preparation of the screening report through interviews, surveys, and other participatory techniques commonly used in community development. As far as is practicable, the locally affected public should be made aware of the results of the Environmental Screening Report.

**7. Outline any further comments and the source of information used to prepare this Environmental Screening Report.**

This section might include a list of references, reports or studies used to prepare the Environmental Screening Report. Please note if there are attached documents by checking the box. Additional reference materials related to the Environmental Screening Report are placed in the Public Registry located in the project file.

**SECTION C: ENVIRONMENTAL SCREENING DETERMINATION**

The purpose of this section is to document the decision about the significance of the likely environmental effects of the proposed project, based on the information provided in the Environmental Screening Report. Section C also identifies any environmental follow-up and monitoring requirements to be conducted by the Mission, Embassy, P/FSU, or their agents.



## 1. Environmental Screening Decision

When completing this section, you should consider the following:

- is there enough information to reasonably assess the likely environmental effects of the proposed project?
- if there are information gaps, can these be addressed by contacting the applicant?
- are there specific measures recommended by the applicant to minimize the adverse environmental effects of the project? Can the Mission, Embassy, P/FSU or their agents suggest any additional measures?
- if the potential environmental effects of the proposed project are significant, will the recommended measures outlined in the application reduce these effects, thereby making them less significant?

After considering the above questions, there are three possible decisions, each with a specific course of action:

SCREENING DECISION	COURSE OF ACTION
A. Project is <b>not</b> likely to cause significant adverse environmental effects	Project <b>may proceed</b> pending approval of other (non-environment) selection criteria.
B. Project is likely to cause significant adverse environmental effects that cannot be justified	Project may <b>not proceed</b> due to the significance of its adverse environmental effects
C. Project requires further environmental assessment because: (i) the significance of adverse environmental effects is uncertain; (ii) public concern	Project may <b>not proceed</b> due to the uncertainty of its environmental effects or public concern. Return proposal to applicant for reassessment or redesign.

## 2. Follow-up and Monitoring Plan

Under the CEAA, follow-up activities should include a review of the effectiveness of the environmental screening and efficiency of any measures which were put in place to reduce, control, compensate for, or eliminate the project's adverse environmental effects. Follow-up should be integrated into regular project follow-up and monitoring activities conducted by the Mission/Embassy. In some cases, however, the Mission/Embassy may wish to conduct environmental monitoring and follow-up of specific projects, such as in cases where new technology is introduced, the project is located in a sensitive ecosystem, or there is public concern about the project.

Identify the environmental effects that need to be monitored and suggest dates for follow-up. This plan should build upon existing requirements for follow-up. The purpose of the follow-up will be to answer questions such as:

- how effective was the assessment at predicting and avoiding environmental effects?
- how could the environmental screening have been done better?
- what can be done to minimize adverse environmental effects which were not anticipated during the environmental screening?

## 3. Approval of the Environmental Screening Report:

The Environmental Screening Report Form may be completed by the applicant (if appropriate), Mission/Embassy staff, locally engaged staff or other agents who are assigned this task and are familiar with environmental assessment. However, because this form is used to document the screening decision, Canadian legal procedures recommend that Section C be approved by a representative of the Government of Canada (e.g. Head of Aid, Development Officer or other Canadian staff).

## 6.0 PRACTICE MAKES PERFECT

Until experience is gained in environmental assessment, fund administrators and managers may be uncertain whether a proposal should be considered a "project" according to the CEAA. Administrators and managers encounter similar funding requests repeatedly and, in time, will be able to discern which projects require an Environmental Screening Report and for what reasons. Environmental advisors in the field will also come to learn which environmental effects are likely to occur from certain types of projects and how best to mitigate these effects in the particular circumstances. As such, the ability of the Mission/Embassy to conduct environmental assessments will improve with practice. A terms of reference (TOR) for contracting local environmental expertise, or preparing environmental screening reports, may be developed by extracting components from the generic TORs contained in **Appendix G**. The generic TORs are broad in scope to facilitate their use in a variety of applications.

## 7.0 GETTING ASSISTANCE

Assistance with the environmental assessment process is available from a number of sources. Wherever possible, Missions/Embassies should commission the services of local organizations or persons who can provide assistance with environmental assessment, or seek assistance from the Field or Program Support Unit (F/PSU). In other cases, Missions and Embassies may wish to contact their Environment Specialist/Advisor at CIDA via e-mail, phone or fax.

### **7.1 Other Sources of Information**

A number of documents and supporting information are available from CIDA to help you integrate environmental considerations into projects:

- CIDA's Policy for Environmental Sustainability
- CIDA and the Canadian Environmental Assessment Act (set of five posters)
- CEAA Job Aid (electronic instruction guide)
- Environmental Assessment at CIDA

CIDA will also regularly make available to the field additional reference materials on environmental assessment.

From the Canadian Environmental Assessment Agency in Hull, readers may also order the following publications (tel. 819-997-1000, fax. 819-994-1469, Internet: [www.ceaa.gc.ca](http://www.ceaa.gc.ca))

- Responsible Authority's Guide to the CEAA
- Practitioner's Guide to the CEAA
- Manager's Guide to the CEAA

Note that the above publications are designed to address the domestic operation of the CEAA which, in certain cases, differs from its international application.

## **GLOSSARY**

**Abandonment:** the closing or withdrawal from production of a physical work, but does not include the temporary cessation of the operation of a physical work.

**Adverse Environmental Effect:** in general, an environmental effect is considered adverse if it increases the rate of resource extraction beyond the local environment's regenerative capacity (i.e. sustainable resource yield) and/or causes the rate of waste generation to exceed the local environment's assimilative or absorptive capacity (i.e. ability to absorb waste).

**Biological Diversity:** biological diversity is an important measure of ecosystem integrity. There are three aspects to biological diversity: genetic diversity, species diversity, and ecosystem diversity. Genetic diversity is the sum of chromosomal information contained in the genes of individual plants and animals. Species diversity refers to the variety of living organisms on Earth or within an ecosystem. Ecosystem diversity is the variety of habitats and biotic communities which are found on the Earth.

**Compensation:** environmental sustainability can sometimes be maintained by replacing the features of the environment which have been damaged or diminished with an equivalent amount and type of resource elsewhere. Where people have been affected directly by a project, it may be appropriate to compensate them for loss of access to a resource and/or loss of income from their use of that resource.

**Culturing:** the process of managing an ecosystem by planting and nurturing large populations of natural or genetically-altered species to maximize the sustained yield for human purposes. Examples include agriculture, aquaculture and silviculture.

**Cumulative Effects:** the environmental effects that are likely to result from a project in combination with other projects or activities that have been or will be carried out. An assessment of cumulative environmental effects takes into consideration the temporal and geographic boundaries of the project and the interactions among the project's environmental effects and past and future projects or activities.

**Decommissioning:** to remove from service a physical work, but does not include the cessation of the operation of the physical work (i.e. abandonment).

**Ecosystem:** systems of plants, animals (including humans), and micro-organisms, together with the non-living components of their environment, and related ecological processes. It includes the whole system, not only the community of living organisms, but also the complex of physical factors forming the environment. There are a number of recognized ecosystem types, including aquatic ecosystems, terrestrial ecosystems, watersheds, and river basins, that vary widely in size and scope.

**Endangered Species:** any indigenous species of fauna or flora that, on the basis of the best available evidence, is indicated to be threatened with immediate extinction throughout all or a significant portion of its range.

**Environmental Assessment:** in respect to a project, an assessment of the environmental effects of the project, the objectives of which are to safeguard ecological functions, ensure responsible natural resource use and respect community needs and values. Under the CEAA, environmental assessment is defined as an assessment of a project's environmental effects that is conducted in accordance with the CEAA and its regulations.

**Environmental Screening:** an environmental assessment that draws on existing knowledge of environmental management to identify the effects associated with a proposed project. The factors to be considered in an environmental screening are described in section 16(1) of the CEAA and are listed in the Environmental Screening Report Form.

**Environmental Components:** in general, the environment can be categorized into land, air, water and socio-economic components.

**Erosion:** the loss of soil and/or sediments as a result of wind or the release of water onto land from irrigation, rainfall, and/or flooding.

**Environmental Effects:** under the CEAA, an environmental effect is defined as any change that the project may cause in the environment, including any effect of such change on health and socio-economic conditions, on physical and cultural heritage, on the current use of lands and resources for traditional purposes by aboriginal persons, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.

**Environmental Sustainability:** achieving environmental sustainability requires managing and protecting ecosystems to maintain both their economic productivity and their ecological functions, maintaining the diversity of life in both human-managed and natural systems, and protecting the environment from pollution to maintain the quality of land, air and water.

**Expansion:** an increase in the exterior dimensions or the production capacity of a physical work.

**Fish Habitat:** means the spawning grounds and nursery, rearing, food supply, and migration routes on which fish, including (a) parts of fish; (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans, or marine animals; and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals, depend directly or indirectly in order to carry out their life processes.

**Harvesting:** the gathering of cultured or uncultured natural resources from land or water.

**Irreversible Degradation:** when the environment has been stressed by humans to the point where its capacity to adapt, regenerate or assimilate these stresses has been exceeded and it cannot be restored or recovered to support normal ecologically productive functions in any timeframe which might meet human needs.

**Irrigation Structure:** one of the following that is used for irrigating agricultural land: a buried pipeline, a pipe, a pump, a pump house, a reservoir, a drain, or a canal lined with asphalt, wood, concrete or other material.

**Mitigation Measure:** any specific action taken to eliminate, reduce or control the adverse environmental effects of a project.

**Modification:** an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion.

**Monitoring:** identifying and developing information on environmental components likely to be affected when a proposed project is implemented in order to compare actual effects to those which were anticipated during the environmental screening. Monitoring provides useful information to judge the environmental effects of subsequent projects.

**Monitoring Review:** monitoring is only valuable if results are reviewed periodically to determine whether, and how, the environment is being affected by a project. If monitoring reveals that measures to prevent, reduce, eliminate, or control adverse environmental effects are not working effectively, the means must be put in place to make the changes necessary to correct the problem.

**Polluting Substance:** a substance that, if added to a water body or discharged onto surface and sub-surface land, is likely to degrade or alter (or form part of a process of degradation or alteration of) the physical, chemical, or biological conditions of the water body or land to an extent that is detrimental to its use by human beings, animals, fish or plants.

**Proponent:** in respect of project, means the person, body, federal authority or government that proposes the project.

**Rehabilitate:** after resource harvesting or extraction, to treat land so that the use or condition of the land is restored to its former use or condition, or is changed to another use or condition which is acceptable to the community.

**Restoration:** upon completion of a project (mining for example), there may be opportunities to restore a self-sustaining ecosystem or the land to the point where it can be used to meet other needs. These opportunities should be identified early in the implementation of a project, and specific plans to restore the ecosystem to this state should be put in place at the earliest possible date, including an assessment of the funds required and potential funding sources.

**Residual environmental effects:** the environmental effects remaining from a project after mitigation measures have been taken into account.

**Toxic Substances:** any deleterious substance which has the potential to be exposed to natural species and humans and which is known to cause injury or cancer in the tissues of natural species or humans, or to cause death.

**Transboundary effects:** any environmental effect from a project that occurs in a different jurisdiction than that identified as the project area and that is of likely significance.

**Undertaking:** an initiative which involves constructing, operating, modifying, decommissioning, abandoning or any other activity related to a physical work or structure.

**Water Body:** any water body, including a canal, reservoir, an ocean, and a wetland, up to the water level mark, but does not include a sewage or waste treatment lagoon or a mine tailings pond.

**Wetland:** a swamp, marsh, bog, fen or other land that is covered by water during at least three consecutive months of the year.

## APPENDIX A

### LIST OF PROJECTS EXCLUDED FROM THE CEEA

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#### General

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- 1 The proposed maintenance or repair of an existing physical work.

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- 2 The proposed operation of an existing physical work that is the same as an operation for which an environmental assessment has been previously conducted under either the *Canadian Environmental Assessment Act* or the *Environmental Assessment Guidelines Order* where:
  - (a) as a result of the assessment, the environmental effects have been determined to be insignificant, taking into account the implementation of mitigation measures, if any; and
  - (b) the mitigation measures and follow-up program, if any, have been substantially implemented.

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- 3 The proposed construction or installation of a building with a footprint of less than 100 square metres and a height of less than 5 metres that would **not**:
  - (a) be carried out in or on or within 30 metres of a water body; and
  - (b) involve the likely release of a polluting substance into a water body

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- 4 The proposed expansion or modification of an existing building, including its fixed structures, that would **not**:
  - (a) increase the footprint or height of the building by more than 10 %;
  - (b) be carried out in or on or within 30 metres of a water body; and
  - (c) involve the likely release of a polluting substance into a water body.

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- 5 The proposed construction, installation, expansion or modification of an environmental scientific data collection instrument and its housing and enclosure, other than a water-quality data collection instrument, that would **not**:
  - (a) be carried out in or on or within 30 metres of a water body; and
  - (b) involve the likely release of a polluting substance into a water body.

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- 6 The proposed construction, installation, expansion or modification of a ramp, door or handrail to facilitate wheelchair access.

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- 7 The proposed construction, installation, expansion or modification of a temporary exhibition structure inside, or affixed to the exterior of, an existing building.

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- 8 The proposed construction of a sidewalk or boardwalk, or a parking lot with a parking capacity of 10 automobiles or fewer, where the construction:
  - (a) would be contiguous to an existing building;
  - (b) would not be carried out in or on or within 30 metres of a water body; and
  - (c) would not involve the likely release of a polluting substance into a water body.

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- 9 The proposed expansion or modification of an existing sidewalk, boardwalk or parking lot that would **not**:
  - (a) increase the area of the sidewalk, boardwalk or parking lot by more than 10%;
  - (b) be carried out in or on or within 30 metres of a water body; and
  - (c) involve the likely release of a polluting substance into a water body.

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- 10 The proposed expansion or modification of an existing fence that would **not**:
  - (a) increase the length or height of the fence by more than 10%;
  - (b) be carried out in or on or within 30 metres of a water body; and
  - (c) involve the likely release of a polluting substance into a water body.

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**GENERAL**

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- 11 The proposed construction, installation, expansion, or modification of a hydrant or hook-up, where:
- (a) the hydrant or hook-up would be or is part of an existing farm or municipal system of distribution; and
  - (b) the construction, installation, expansion or modification would not involve the crossing of a water body other than an aerial crossing by a telecommunication or electrical transmission line.
- 
- 12 The proposed construction, installation, expansion or modification of a sign no surface of which would have or has an area of more than 25 m<sup>2</sup> and which would be or is situated at a distance of less than 15 metres from an existing building.
- 
- 13 The proposed construction, installation, expansion or modification of a radiocommunication antenna and its supporting structure that:
- (a) would not be carried out in or on or within 30 metres of a water body;
  - (b) would not involve the likely release of a polluting substance into a water body;
  - (c) would have one of the following characteristics:
    - (i) the antenna and supporting structure are affixed to an existing building;
    - (ii) the antenna and supporting structure are situated at a distance of less than 15 metres from an existing building; and
    - (iii) neither the antenna nor its supporting structure nor any of its supporting lines have a footprint of more than 25 m<sup>2</sup>.
- 
- 14 The proposed construction, installation, expansion or modification of a temporary field camp used for scientific or technical research, or for reforestation, where:
- (a) the temporary camp would be in use during fewer than 200 person-days; and
  - (b) the construction, installation, expansion or modification would not:
    - (i) be carried out in or on or within 30 metres of a water body;
    - (ii) involve the likely release of a polluting substance into a water body.
- 
- 15 The proposed expansion or modification of an existing road that would not be carried out on the existing road right of way and would **not**:
- (a) lengthen the road;
  - (b) widen the road by more than 15%;
  - (c) be carried out in or on or within 30 metres of a water body; and
  - (d) involve the likely release of a polluting substance into a water body.
- 
- 16 The proposed demolition of an existing building with a floor area of less than 1000 square metres that would **not**:
- (a) be carried out in or on or within 30 metres of a water body;
  - (b) involve the likely release of a polluting substance into a water body; and
  - (c) be carried out within 30 metres of another building.

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## AGRICULTURE

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- 1 The proposed modification of an existing irrigation structure that would not involve the likely release of a polluting substance into a water body.
  - 2 The proposed construction, expansion or modification of a domestic or farm water supply well, pump house, water-tank loading facility or dugout on agricultural land that would **not**:
    - (a) be carried out in or on or within 30 metres of water body; and
    - (b) involve the likely release of a polluting substance into a water body.
  - 3 The proposed construction, expansion or modification of a centre pivot or side roll sprinkler on agricultural land that would **not**:
    - (a) be arranged out in or on or within 30 metres of a water body; and
    - (b) involve the likely release of a polluting substance into a water body.
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## ELECTRICAL AND NUCLEAR ENERGY

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- 1 The proposed construction or installation of an electrical transmission line, other than an international electrical transmission line, with a voltage of not more than 130 kV, where the construction or installation would **not**:
  - (a) be carried out beyond an existing right of way;
  - (b) involve the likely release of a polluting substance into a water body; and
  - (c) involve the placement in or on a water body of the supporting structures for the electrical transmission line.
- 2 The proposed expansion or modification of an existing telecommunication or electrical transmission line, other than an international electrical transmission line, that would **not**:
  - (a) lengthen the line by more than 10%;
  - (b) be carried out beyond an existing right of way;
  - (c) involve the likely release of a polluting substance into a water body; and
  - (d) involve the place in or on a water body of the supporting structures for the telecommunication or electrical transmission line.
- 3 The proposed construction or installation of a switching station associated with a telecommunication or electrical transmission line with a voltage of not more than 130 kV, other than an international transmission line, where the construction or installation would **not**:
  - (a) be carried out beyond an existing right of way;
  - (b) be carried out in or on or within 30 metres of a water body;
  - (c) involve the likely release of a polluting substance into a water body.
- 4 The proposed expansion or modification of an existing switching station associated with a telecommunication or electrical transmission line, where the expansion or modification would **not**:
  - (a) be carried out beyond an existing right of way;
  - (b) be carried out in or on or within 30 metres of a water body; and
  - (c) involve the likely release of a polluting substance into a water body.
- 5 The proposed construction, installation, expansion or modification of an international electrical transmission line with a voltage of not more than 50 kV that would **not**:
  - (a) be carried out beyond an existing right of way;
  - (b) extend more than 4 km outside Canada;
  - (c) involve the likely release of a polluting substance into a water body; and
  - (d) involve the placement of the supporting structures for the line in or on or within 30 metres of a water body



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## ELECTRICAL AND NUCLEAR ENERGY

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- 6 The proposed construction, installation, operation or modification of a particle accelerator, where the particle accelerator is:
- (a) an electron linac or cyclotron accelerator capable of operating at no more than 50 MeV; or
  - (b) an electrostatic accelerator capable of operating at no more than 5 MV.
- 
- 7 The proposed construction, installation, operation, expansion, modification, decommissioning or abandonment of a physical work that requires a licence under subsection 7(1) of the Atomic Energy Control Regulations, where:
- (a) the physical work has a floor area of 100 m<sup>3</sup> or less and a height of 5 metres or less;
  - (b) in the case of a proposed expansion, the footprint or height of the physical work is not increased by more than 10%; and
  - (c) the physical work is not one of the following:
    - (i) a facility for the separation and processing of radioisotopes or a facility for the manufacture of sealed radiation sources, where the activity of the resident inventory of radioactive material in that facility is more than 1 PBq or where the activity of the annual throughput of radioactive material is more than 1 PBq, and
    - (ii) an irradiation facility that employs a pool-type irradiator, where the form and composition of the radioactive material within the sealed radiation source is such that the material would be readily dispersed in air or easily dissolved in water if the seal were ruptured.
- 
- 8 The proposed construction, installation, operation, modification, decommissioning or abandonment of monitoring, safety or security equipment that is affixed or adjacent to an existing nuclear facility.
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- 9 The proposed modification of an existing nuclear facility or an existing facility referred to in subparagraph 7(c)(i) or (ii) that is the same as a modification for which an environmental assessment has been conducted under either the *Canadian Environmental Assessment Act* or the *Environmental Assessment Review Process Guidelines Order*, where:
- (a) as a result of the assessment, the environmental effects have been determined to be insignificant taking into account the implementation of mitigation measures, if any; and
  - (b) the mitigation measures and follow-up program, if any, have been substantially implemented.
- 
- 10 The proposed expansion or modification of any fixed structure within an existing nuclear facility or an existing facility referred to in subparagraph 7(c)(i) or (ii) that would **not**:
- (a) be carried out in or on or within 30 metres of a water body;
  - (b) involve the likely release of a polluting substance into a water body.
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## FORESTRY

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- 1 The proposed expansion or modification of an existing drainage structure, other than a drainage structure connected to a water body, on forested land, where the expansion or modification :
- (a) would not lengthen the structure by more than 10%;
  - (b) would be carried out in a place other than in the Yukon Territory or the Northwest Territories.

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**WATER PROJECTS**

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- 1 The proposed construction, expansion, modification or demolition that would not involve the likely release of a polluting substance into a water body, of a structure, such as a bait storage depot, net repair or patrol cabin, that:
  - (a) would be or is located on land;
  - (b) would be or is associated with fishing or the use of small pleasure craft; and
  - (c) would have or has a floor area of less than 100 m<sup>2</sup> and a height of less than 5 metres.
- 2 The proposed construction, installation, expansion or modification of a fish habitat improvement structure that would not involve the use of heavy machinery.
- 3 The proposed modification of an existing wharf, other than a floating wharf, or of an existing breakwater that is accessible by land, where the modification would **not**:
  - (a) be carried out below the high-water mark of the breakwater or wharf;
  - (b) involve dredging; and
  - (c) involve the likely release of a polluting substance into a water body.
- 4 The proposed re-installation, expansion or modification of an existing floating wharf that would not increase its area by more than 10%.
- 5 The proposed demolition of an existing wharf that would **not** involve:
  - (a) the use of explosives; and
  - (b) the likely release of a polluting substance into a water body.

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**TRANSPORTATION**

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- 1 The proposed expansion or modification of an existing pavement or gravel area with the boundary of an airport, as defined in subsection 3(1) of the *Aeronautics Act*, that would **not**:
  - (a) increase the pavement or gravel area by more than 10%;
  - (b) be carried out in or on or within 30 metres of a water body; and
  - (c) involve the likely release of a polluting substance into a water body.
- 2 The proposed modification of existing aircraft manoeuvring lights or navigation aids.
- 3 The proposed construction, installation, expansion or modification of an automatic warning structure at a railway level crossing.
- 4 The proposed construction, installation, expansion or modification of a railway traffic control signal structure on an existing right of way.
- 5 The proposed modification of that part of an existing oil and gas pipeline, sewer or drain that crosses under a railway or road and is within the existing railway or road right of way.
- 6 The proposed modification of that part of an existing culvert that:
  - (a) is not connected to a water body;
  - (b) crosses under a railway or road; and
  - (c) is within the existing railway or road right of way.
- 7 The proposed modification, other than a deviation, of an existing railway track or bed that would **not**:
  - (a) be carried out in or on or within 30 metres of a water body; and
  - (b) involve the likely release of a polluting substance into a water body.
- 8 The proposed modification of an existing road crossing, as defined in subsection 4(1) of the *Railway Safety Act*, where the modification would be carried out on an existing right of way, and:
  - (a) not be subject to an order under subsection 202(1) of the *Railway Act*;
  - (b) not be carried out in or on or within 30 metres of a water body; and
  - (c) not involve the likely release of a polluting substance into a water body.

**APPENDIX B**

**CLAUSE FOR CONTRIBUTION AGREEMENTS INVOLVING AN ENVIRONMENTAL ASSESSMENT PROCESS OTHER THAN THE CEEA**

"Prior to carrying out a project, the organization \_\_\_\_\_, or any other recipient of funds from your organization for the project, shall conduct or ensure that an assessment of the environmental effects is conducted in accordance with \_\_\_\_\_ (insert name of environmental assessment process to be applied). The organization shall

provide the Mission or Embassy, upon request, all documentation relating to the assessment of environmental effects of the project.

The organization \_\_\_\_\_ shall advise, upon request, the Canadian Mission or Embassy which exemptions of the *Access to Information Act* or the *Privacy Act* could apply to any document or any parts of a document submitted for the purposes of the Public Registry.

The organization \_\_\_\_\_ shall, upon request, provide a solicitor's opinion that the assessment of the environmental effects was conducted in accordance with the environmental assessment process identified in paragraph 1. The organization hereby waives the solicitor-client privilege."

## APPENDIX C

### STANDARD FORMAT FOR ANNUAL PUBLIC REGISTRY REPORT

At the beginning of each fiscal year, the Canadian Missions/Embassies must send to the appropriate desk at CIDA headquarters (CIDA/HULL) the Year-End Report for the Canada Fund and other Mission-administered funds (if applicable).

As described in section 3 of this manual, the Year-End Report must include a separate annex on the Public Registry under the Canadian Environmental Assessment Act. The annex will list the following information:

- The title of the project(s) for which an Environmental Screening Report was prepared.
- A brief narrative on the project activities (two sentences maximum).
- Country and location of project.
- The screening decision and course of action [A, B, or C(i) or (ii)] which was made by the Mission or Embassy according to Section C of the Environmental Screening Report and as described on page 14 of this manual.

Occasionally, CIDA may also request that copies of the environmental assessment forms, and any records relating to the assessment, be forwarded to headquarters.

**ANNEX D - ENVIRONMENTAL ASSESSMENT FORMS**

**[FOR CHC/EMBASSY USE ONLY]** - Please complete this form for all project proposals submitted to, or initiated by, the Canadian High Commission/Embassy (e.g. Canada Fund and other mission-administered funds). The form is used to determine whether an Environmental Screening Report is required under the Canadian Environmental Assessment Act (CEAA). Attach this form, plus the Environmental Screening Report if required, to the project file.

**B. BRIEF DESCRIPTION OF PROPOSAL**

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1. Primary undertaking(s) - please "✓" all that apply

- Construction    Operation    Repair    Expansion    Abandonment    Installation  
 Modification    Decommissioning    Maintenance    None of the above

2. Sector(s) - please "✓" all that apply

- Agriculture    Communication    Forestry    Mining    Water & Sanitation  
 Energy    Industry    Transportation    Institutional    Commercial

Other, specify: \_\_\_\_\_

**C. DOES THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT APPLY?**

1. Does the proposed initiative include a "project" as defined in the CEAA?

- No (an environmental screening is **not** required, **go to section D**)  
 Yes\* (the project involves an undertaking in relation to a physical work)

Specify: \_\_\_\_\_

- The essential project details will not be specified before entering into a financial agreement. An assessment of the environmental effects will be carried out as early as is practicable in the planning stages of the project, in accordance with the following environmental assessment process:  
 Specify: \_\_\_\_\_ (**go to section E**)

2. Is the project excluded from the CEAA?

- No\* (an environmental screening report is required, **go to section D**)  
 Yes (an environmental screening is **not** required under the CEAA)  
 the project is on the Exclusion List regulation  
 the project is undertaken in response to an emergency

\* If the response to question 1 is "Yes" and question 2 is "No" an Environmental Screening Report is required.

**D. APPROVAL OF THE PRELIMINARY ASSESSMENT**

Please "✓" the appropriate box:

- (1)  An environmental screening report is required.                      (2)  An environmental screening report is not required.

**E. PREPARED/RECOMMENDED BY:**

**APPROVED BY :**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



2. What environmental effects may occur as a result of accidents or malfunctions relating to the project ?  
(for example: spills, release of pollutants)

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3. What cumulative environmental effects are likely to result from the project, in combination with other projects that have been, or will be, carried out in the project area?

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4. What measures will be taken to reduce, control, compensate for, or eliminate the project's adverse environmental effects?

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5. What environmental effects may continue to occur after the measures described in question 4 are implemented?

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**6. Describe public comments about the project and/or how the public was involved in preparing the Environmental Screening Report:**

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**7. Outline any further comments and the sources of information used for the preparation of this environmental screening report:**

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please check "✓" if additional information is attached



**APPENDIX E**  
**EXAMPLE OF COMPLETED ENVIRONMENTAL ASSESSMENT FORM**

**[FOR CHC/EMBASSY USE ONLY]** - Please complete this form for all project proposals submitted to, or initiated by, the Canadian High Commission/ Embassy (e.g. Canada Fund and other mission-administered funds). The form is used to determine whether an Environmental Screening Report is required under the Canadian Environmental Assessment Act (CEAA). Attach this form, plus the Environmental Screening Report if required, to the project file.

**B. BRIEF DESCRIPTION OF PROPOSAL**

• **Construction of Irrigation System**

1. Primary undertaking(s) - please "✓" all that apply

- Construction     Operation     Repair     Expansion     Abandonment  
 Installation     Modification     Decommissioning     Maintenance     None of the above

2. Sector(s) - please "✓" all that apply

- Agriculture     Communication     Forestry     Mining     Water & Sanitation  
 Energy     Industry     Transportation     Institutional     Commercial  
 Other, specify: \_\_\_\_\_

**C. DOES THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT APPLY?**

1. Does the proposed initiative include a "project" as defined in the CEAA?

- No (an environmental screening is **not** required, **go to section D**)  
 Yes\* (the project involves an undertaking in relation to a physical work)

Specify: Construction of irrigation system

- The essential project details will not be specified before entering into a financial agreement.

An assessment of the environmental effects will be carried out as early as is practicable in the planning stages of the project, in accordance with the following environmental assessment process:

Specify: \_\_\_\_\_ (**go to section E**)

2. Is the project excluded from the CEAA?

- No\* (an environmental screening report is required, **go to section D**)  
 Yes (an environmental screening is **not** required under the CEAA)  
 the project is on the Exclusion List regulation  
 the project is undertaken in response to an emergency

\* If the response to question 1 is "Yes" and question 2 is "No" an Environmental Screening Report is required.

**D. APPROVAL OF THE PRELIMINARY ASSESSMENT**

Please "✓" the appropriate box:

(1)  An environmental screening report is required.

(2)  An environmental screening report is not required.

**E. PREPARED/RECOMMENDED BY:**

Mr. John Doe \_\_\_\_\_  
**Name**

Fund Coordinator \_\_\_\_\_  
**Title**

May 13, 1996 \_\_\_\_\_  
**Date**

**APPROVED BY :**

Ms. Jane Smith \_\_\_\_\_  
**Name**

Head of Aid \_\_\_\_\_  
**Title**

May 15, 1996 \_\_\_\_\_  
**Date**

Please complete this form and attach it to the project application. If necessary, please attach additional sheets to respond to the questions.

## B. ENVIRONMENTAL SCREENING

The following sections may be completed by the applicant.

1. What are the environmental effects of the project? Please use the following categories: biophysical (land, air, water, biota), socio-economic (health, gender, income, human settlements) and cultural (historical sites, community use of resources).

- Diversion of stream water for irrigation using the following project components: irrigation well, 5 km of pipelines, two pumping stations, and water recovery system.
- Main environmental effects of project are (1) reduced supply of water for aquatic flora and fauna downstream in watershed; (2) nutrient enrichment of irrigation canal waters; (3) sediment clogging, especially on slopes with erodible soils during earthworks for pipeline installation; (4) potential waterlogging from inadequate drainage, over-irrigation or seepage from canals and ditches; (5) potential reduction in water quality in watershed through sediment loading and non-point source pesticide residue from nearby crop areas; (6) potential impact of commercial or domestically important fish species; (7) water loss through soil infiltration, high percolation rates and evapotranspiration; (8) potential incidence of disease through increased volume of standing water; (9) potential lowering of groundwater table if withdrawal rate is too high; (10) potential contamination of potable water sources by competing users; (11) adjacent landuses to be affected within context of land tenure; (12) traditional livelihoods to be effected by introduction of modern irrigation systems and equipment; (13) community access to traditional access points to be impacted; (14) new service corridors to irrigation system will be established with associated effects on flora, fauna and rural growth patterns; (15) project is targetted to increase rural endowments by increasing productivity and efficiency use of natural resources; (16) project may increase density of human resettlements in keeping with current demographic trends; (17) shift in crop production and variety will likely effect market access and traditional food consumption patterns.

2. What environmental effects may occur as a result of accidents or malfunctions relating to the project ?  
(for example: spills, release of pollutants)

(1) susceptibility of irrigation project to damage by flooding or drainage failure; (2) temporary pumping equipment failure will increase residence time of standing water; (3) prolonged interruptions in water flow may impact standing crops leading to crop failure and loss of income.

3. What cumulative environmental effects are likely to result from the project, in combination with other projects that have been, or will be, carried out in the project area?

(1) the installation of the irrigation system coupled with the planned expansion of local market district will likely lead to population growth in the village; (2) human resettlement rate will increase need for essential services and place additional demands on local natural resources to service village populations; (3) increased human and vehicular traffic in region will affect traditional corridors as well as open new corridors, thereby impacting on local ecosystems (on which the village depends for livelihood) and effecting landholder entitlements.

4. What measures will be taken to reduce, control, compensate for, or eliminate the project's adverse environmental effects?:

(1) irrigation flow rate will be determined according to rainfall data, the size of area to be irrigated, soil type, soil infiltration and percolation rates, water retention capacity of soil, water requirements of crops, crop root zone depth, topography of area, presence of hardpans and lateritic soils, flood and drought cycles, existing surface and subsurface drainage characteristics, water table depth (both in dry and wet season), and other technical considerations;

(2) pipeline and drainage canals will be lined and covered to prevent seepage and potential contamination of potable water sources; (3) grasses with deep root systems will be planted on banks to stabilize soil and prevent erosion; (4) pictorial signage will be erected to control access points to pumping stations and canals; (5) fencing will be erected to eliminate livestock access to irrigation canals; (6) optimal surface and sub-surface water extraction rates will be determined to reduce effects of drawdown on flora and fauna; (7) fish ladders will be incorporated into design of system as required; (8) crop selection will be based on local needs and preferences, taking into account water conservation; (9) transportation corridors to irrigation system, fields and market area will be developed according to the Rural Development Plan prepared by the local community; (10) the water distribution network will be established according to the Regional Water Management Plan for the district, prepared by the Bigyaan Kalej with assistance from the Canadian Cooperation Office; (11) Corridors for wildlife movement will be conserved; (12) Water management and pesticide application training programmes will be conducted; (13) Health and safety protocols will be developed as part of the project; and, (14) Back-up system for pumping equipment will be constructed, using low-maintenance field techniques.

5. What environmental effects may continue to occur after the measures described in question 4 are implemented?

(1) minor seepage of irrigation waters; (2) non-point source run-off of pesticide residue into irrigation canals; (3) increased probability of disease vectors associated with standing water.

6. Describe how the local public participated in developing the project and/or preparing this environmental screening report:

(1) Project complements the Regional Water Management Plan and the Rural Development Plan, both of which were developed in collaboration with the local community; (2) The local cooperative will be responsible for maintenance of the system and a sub-committee established under the Rural Development Plan will be charged with providing strategic direction to the project and ongoing monitoring and follow-up to further mitigate items identified in question 5.

**7. Outline any further comments and the sources of information used for the preparation of this environmental screening report:**

- Project was developed in consultation with experts from local universities and in collaboration with the local sub-committee of the Rural Development Plan.

**please check "✓" if additional information is attached**

## APPENDIX F

### SAMPLE MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CRITERIA

SECTOR	MITIGATION MEASURES AND DESIGN CRITERIA FOR SMALL PROJECTS
<b>Water and Sanitation</b>	<ul style="list-style-type: none"> <li>• Project site and scale should be planned to avoid the water supply source from conflicting with other users</li> <li>• Design sanitation component to remain within minimum waste assimilation capacity of receiving waters</li> <li>• Promote sub-regional or small community systems in water shortage areas</li> <li>• Install an impermeable conduit base to avoid water contamination from seepage and overflow of waste facilities</li> <li>• Apply wastewater re-use/reclamation techniques</li> <li>• Control run-off from leached deposits by dike or excavated pond</li> <li>• Institute monitoring program and maintenance schedule</li> <li>• Install noise and odour control systems</li> <li>• Locate and design workforce settlement to avoid potential conflicts</li> <li>• Limit water retention time in reservoir</li> <li>• Do not route sewerlines into stream channels</li> <li>• Place covenants on landuse in watershed area</li> <li>• Maintain minimum flow for fisheries; construct fish ladders and protect spawning grounds</li> <li>• Plant vegetation to control erosion and sedimentation</li> <li>• Provide access to canals for the regular removal of weeds and sediments</li> <li>• Use self-closing hydrants and taps and use low pressure distribution systems</li> <li>• Use low-maintenance construction techniques</li> <li>• Institute education programs on health and conservation</li> <li>• Use pictorial signage to restrict access to prohibited areas</li> </ul>
<b>Irrigation</b>	<ul style="list-style-type: none"> <li>• Regulate flow to minimize waterlogging and salinization</li> <li>• Schedule water drawdowns to minimize effects on local ecosystems</li> <li>• Maintain or provide corridors for wildlife movement</li> <li>• Minimize erosion by planting trees or other vegetation</li> <li>• Use sprinklers or drip irrigation to conserve water</li> <li>• Build sediment traps in fields and canals to return sediment to fields</li> <li>• Use lined canals or pipes to minimize seepage</li> <li>• Install gates at canal ends to facilitate flushing</li> <li>• Consider proximity of human settlements and livestock, and vulnerability to health risks posed by irrigation</li> <li>• Site projects to avoid encroachment into sensitive natural or human environments (e.g. tropical forest, forests, wetlands, historical and cultural sites)</li> <li>• Prevent reduced crop yields due to leaching of nutrients under irrigation waters</li> <li>• Replace nutrients by applying low-volume fertilizers and introducing crop rotation</li> <li>• If possible, introduce alternate water supply sources to offset diversion to irrigation</li> <li>• If appropriate, promote planting of crops with low water demand</li> <li>• Avoid the creation of stagnant or slowly moving water</li> <li>• Monitor impacts on wildlife populations and natural vegetation</li> <li>• Limit groundwater withdrawal to a "sustainable yield"</li> <li>• Institute farmer training programs on crop irrigation and water conservation</li> </ul>

## SECTOR

## MITIGATION MEASURES AND DESIGN CRITERIA FOR SMALL PROJECTS

### Agriculture

- Avoid reclaiming wetlands, waterways, or woodlots
- Avoid applying pesticides close to waterways or community areas
- Encourage integrated pest management as an alternative to pesticides
- Develop health and safety programs in the use of agriculture products
- Encourage rotational or deferred livestock grazing and control livestock water access points
- Retain certain vegetation such as tree stumps and shrubs to help preserve soil structure and prevent soil erosion
- Plant the cleared area immediately following clearance with an appropriate vegetation cover to limit erosion and nutrient loss
- Institute training programs on water conservation techniques, soil conservation measures, and the judicious use and application of agro-chemicals
- Plant buffer zones between forests and agricultural areas
- Institute extension services to educate and train agriculturalists in environmentally responsive land and crop management

### Livestock

- Control length of grazing time and succession of use on particular areas
- Encourage rotational cropping and deferred grazing
- Mix livestock species to optimize use of vegetation resources
- Reseed and produce fodder
- Restrict livestock access to unstable areas (e.g., slopes)
- Place water points strategically to minimize risk of contamination
- Use agro-chemicals that are species-specific, with short residence time and low impact on other biological resources
- Provide protective clothing to minimize dangers to field workers
- Invest in liquid and solid waste treatment to prevent contamination of water supplies by effluent discharged from tanneries, abattoirs and other livestock processing facilities
- Install adequate refrigeration and clean machinery and implement hygienic work practices and a health and safety programme
- Monitor for changes in human and livestock health and water quality

### Pesticide and Fertilizer Use

- Select pesticides and fertilizers that are biodegradable and pose low toxicity to mammals and fish
- Reduce or eliminate use of stable pesticides to avoid bioaccumulation of pesticide residue in the food-chain
- Use pest-specific pesticides and ensure formulations are appropriate (use Ultra Low-Volume application methods)
- Identify and implement integrated pest management (IPM) regimes
- Ensure adequate application equipment is accessible
- Provide protective clothing and masks where appropriate
- Ensure adequate packaging (size/type) and effective labelling on application volumes, rates and spray periods
- Identify optimal thresholds for spraying and prohibit spraying from the air near sensitive human and natural environments
- Avoid spraying pesticides on crops close to the banks of water bodies, groundwater recharge areas and over small farm units
- Use organic and/or green manuring to combat lethal effects of over-intensive use of fertilizer salts and anhydrous ammonia on micro- and macro-organisms
- Limit nitrogen fertilization in crop rotation and near surface water supplies
- Monitor water quality levels and restrict fertilizer use where appropriate
- Institute training programmes on health and safety and optimum fertilizer application

## **Forestry**

- Before defining or redefining forest boundaries for commercial or watershed protection objectives, ensure adequate relocation of people and access to essential services and resources
- Ensure project reflects local criteria for logging on slopes and near water
- Collect data on plant community dynamics prior to commencing operations
- Select silviculture systems that will ensure regeneration and sustainable production and minimize damage
- Leave adequate numbers, quality and variety of seed trees
- Avoid clear cutting and practice small coupe logging, alternating small cuts with unlogged areas
- Avoid logging in the rainy season and re-establish forest cover immediately after clearing
- Limit site preparation to dry season and limit use of machinery and fire
- Minimize or eliminate use of chemicals
- Refrain from whole-tree harvesting in areas of low nutrient levels
- Use low impact harvesting equipment and methods
- Limit plantation establishments to degraded sites or sites of low diversity
- Choose tree species with pest or disease resistance and low water demand
- Leave buffer zones of undisturbed forest 20-60 metres along streams
- Monitor impact of forestry on sediment and nutrient loading into streams and the impacts on water quality
- Minimize number and size of transportation routes to access forested areas

## **Fisheries and Aquaculture**

- Minimize number of areas converted to ponds
- At local level, encourage use of existing depressions, hollows and ditches to stock fish (smallholder agro-aquaculture)
- Stabilize exposed soils with grasses or other ground covering
- Where there is potential conflict between commercial and artisanal fishing, encourage fair allocation of resource exploitation
- Discharge effluents into waters with adequate dilution and dispersal capacity
- Monitor water quality for suspended solids, oil and grease, dissolved oxygen, nitrogen and coliform
- Restrict harvests (minimize size limits, catch quotas, seasonal closures) and equipment (trawl bans, specified net mesh sizes)
- Site project to avoid disruption of traditional uses of water and avoid areas susceptible for acidification (avoid waterlogged soils high in pyrite and organic matter)
- Coordinate aquaculture ponds with other complementary activities such as irrigation
- Avoid introduction of exotic species except where adequate management capacity exists
- Monitor regularly for disease and parasites
- Design project features to prevent disturbance to water flow patterns and hydrologic regimes critical to resource conservation (e.g. wetlands)
- Institute training programmes for environmentally responsive fisheries and aquaculture management

## **Energy**

- Institute education programs on energy conservation
- Avoid siting energy facilities in environmentally sensitive areas
- Minimize land loss and land use conflicts through careful project siting
- Locate facilities with gaseous emissions at sites with favourable dispersion trends (e.g. not in basins)
- Employ low maintenance and field-maintainable techniques (e.g. solar, micro-hydel, biomass, thermal, wind)
- Minimize size of dam and reservoir
- Limit soil movement and exposure to the dry season
- Minimize use of dirt fills and ensure adequate culverts
- Construct sediment basins
- Line receiving surfaces with stones or concrete
- Implement dust, noise and air emission control measures
- Design drainage ditches to avoid impacting nearby lands
- Undertake measures to monitor environmental effects before, during, and after construction

**Transportation**

- Select route to avoid landuse conflicts with local population/community
- Route alignment to avoid valued and sensitive ecosystems (e.g. wilderness areas, wetlands, groundwater recharge zones)
- Limit earth movement and soil exposure to the dry season
- Resurface and vegetate exposed areas and protect vulnerable areas with mulch
- Install adequate number, size and type of sediment basins
- Limit use of heavy equipment to minimize soil compaction
- Construct containment areas to control chemical spills from contaminating water bodies, flora and fauna
- Ensure adequate access to essential services in construction camps (e.g. water and sanitation, waste management)
- Compensate for land price and land ownership impacts
- Ensure proper functioning of drainage works
- Regulate scale and schedule for site access to avoid dust, noise, vibration and air quality impacts on human settlements and natural environments
- Limit scale and number of access roads to site
- Where practicable, place road closure between dusk and dawn to minimize kills to animals and disruption to their behaviour patterns
- Revegetate and landscape affected areas according to local aesthetic standards
- Develop adequate management plan for construction waste

**Waste Management**

- Use enclosed refuse collection vehicles or tarpaulin covers for open vehicles
- Erect enclosure for loading and unloading areas, as well as dust and ventilation suppression
- Water-spray working areas to suppress dust and ensure collection of water run-off
- Prohibit toxic and hazardous waste transportation through human settlements and ecologically valued areas
- Provide buffer zone around disposal site or facility
- Do not locate disposal areas up-gradient to any ground or surface water vulnerable to contamination
- Restrict urban or rural development around disposal site
- Promote reuse of organic materials as fertilizer
- For land spreading of sludge, ensure chemical concentrations are tolerable by crops

**APPENDIX G**

**GENERIC TERMS OF REFERENCE FOR AN ENVIRONMENTAL ASSESSMENT**

Following are generic TORs for an environmental assessment designed to assist in the development of project-specific TORs, which would take into account the local circumstances of the project. TORs for an environmental assessment under the CEEA may be developed by extracting relevant components.

<b>Stage in Project Cycle</b>	<b>Main components of Environmental Assessment</b>	<b>Procedural &amp; Operational Considerations</b>
<p>► <b>Project Concept</b></p>	<ul style="list-style-type: none"> <li>• Summary of the basic developmental issue or problem being addressed.</li> <li>• Summary of the manner in which the proposed project is expected to resolve the issue or problem.</li> <li>• Statement of projects risks and options for delivery.</li> <li>• Statement of the need for environmental analysis and assessment.</li> <li>• Determination of the level of effort and scope of the environmental assessment, focusing on key aspects of critical concern.</li> <li>• Preparation of environmental assessment workplan, including a statement of the objectives of the assessment and the relationship of its results to project planning, design, implementation and follow-up.</li> </ul>	<ul style="list-style-type: none"> <li>• Characterize the issue or problem within its broader context, taking into account: historical perspective, root causes, implications for development, and prior attempts at resolution.</li> <li>• Describe the critical requirements for the proposed project to be successful in the long-term, and identify the major risks and benefits involved.</li> <li>• Identify the technical or operational aspects of the project that are most problematic in terms of achieving sustainability.</li> <li>• Provide information on the assessment team, schedule and budget.</li> </ul>



► Appraisal, Feasibility & Design

**(1) Project Alternatives:**

- Outline of the institutional setting for the environmental assessment through (i) a summary of the legal, policy and procedural bases for environmental assessment in the recipient country and the donor agency, and (ii) a summary and appraisal of the strengths and limitations of the recipient country in the fields of environmental protection and management as they relate to the project.
  - If appropriate, assess the potential for achieving the basic developmental objective(s) by interventions at the policy level.
  - Assess achieving the basic developmental objective(s) by (i) examining alternatives to the proposed project, and (ii) evaluating alternatives within the proposed project, i.e. options for siting, waste management, energy conservation and pollution control technologies.
  - Demonstrate how affected groups in the recipient country were given the opportunity to participate in the environmental assessment process.
- Note those aspects and outcomes of the project which are considered most likely to be affected by the results of the environmental assessment.
  - Assess reasonable options, such as alternative sources of energy production, alternative modes of transportation, and alternative practices for agriculture, manufacturing, forestry, irrigation, and waste management. Assess the potential to implement such alternatives within the context of the local circumstances of the project and its design options.
  - Describe the manner and extent to which other government institutions in the recipient country were consulted or participated in the assessment. Explain how information was distributed to, and received from, the public and how that information was used in project planning.
  - Describe efforts at public scoping, and explain how the results were used to focus the assessment on the critical issues, particularly in regard to collection and interpretation of data.

<p>► Appraisal, Feasibility &amp; Design</p>	<p><b>(2) Required Information:</b></p> <ul style="list-style-type: none"> <li>• Describe the proposed project (design, life, location, layout, size, capacity, activities), inputs (land, raw materials, energy, human resources), outputs (products, waste, useful by-products, emissions), and all ancillary activities relating to the project (transportation routes, resettlement).</li> <li>• Identify the study boundaries and provide baseline data on relevant (as determined from the scoping results) physical, ecological, economic, social, cultural, and demographic conditions within those boundaries.</li> <li>• Assess the quality of all information, identify data gaps, and summarize the limitations placed on the assessment by such deficiencies.</li> </ul> <p><b>(3) Analysis of Impacts:</b></p> <p>(a) <b>Positive Impacts:</b> assess how the lives of the affected community will be improved and any natural systems enhanced through project implementation.</p> <p>(b) <b>Negative Impacts:</b> assess any direct or indirect adverse environmental effects resulting from the project vis à vis:</p> <p>(i) <i>natural resources:</i> assess any significant reduction in the quality of, or accessibility to, water, air and soil, or loss of biodiversity.</p> <p>(ii) <i>human resources:</i> assess the risk of significant deterioration in the health or well-being of the affected populations.</p> <p>(iii) <i>relocation and compensation:</i> assess management plans for involuntary relocation and describe measures taken to minimize the number of relocatees.</p> <p>(iv) <i>cumulative impacts:</i> assess the incremental contribution of the project to the environmental effects of other activities in the area which will be, or have been, carried out.</p> <p>(v) <i>transboundary effects:</i> assess the potential for neighbouring countries or regions to be impacted by the environmental effects of the project.</p> <p>(vi) <i>impact significance:</i> identify impacts of environmental significance within the context of local circumstances and appropriate quality and performance standards.</p>	<ul style="list-style-type: none"> <li>• Identify direct and indirect impacts arising from induced changes in land use and ownership, and from the use of local natural resources as raw material for the project.</li> <li>• Identify and quantify sources of environmental impacts, i.e., emissions, effluents, waste products, and noise.</li> <li>• Identify and quantify the receptors of impacts, i.e., components of ecological systems at risk, vulnerable human groups and sub-groups, and valued local, regional or national resources.</li> <li>• Recommend measures to ensure that important databases of reliable quality will be established and maintained for future use in project planning.</li> <li>• Focus on values determined through scoping, i.e., traditional economy, improved health, better living conditions, conservation of local resources.</li> <li>• Where possible, use predictive quantitative methods to avoid vague predictions.</li> <li>• Undertake an economic and social valuation of the potential environmental impacts.</li> <li>• Assess past success in relocation programs and enact changes accordingly.</li> <li>• Compare the severity of cumulative impacts with those from other previous development activities.</li> <li>• Identify the sources of extra-territorial impacts and measures to keep them at a minimum.</li> <li>• Where possible, determine thresholds that reflect local environmental and social standards and values.</li> <li>• Clearly state the environmental performance and quality standards to be applied in the assessment.</li> </ul>
<p>Stage in Project Cycle</p>	<p>Main components of Environmental Assessment</p>	<p>Procedural &amp; Operational Considerations</p>

► Appraisal, Feasibility & Design

**(4) Mitigation, Monitoring and Follow-up:**

- Preparation of a detailed environmental management plan covering mitigation of predicted impacts, management of residual effects after mitigation measures are put in place, relocation and compensation schemes, decommissioning, and training programmes.
- Preparation of a comprehensive plan identifying the environmental and social variables to be monitored, the location and timing of the monitoring period, and the use to be made of monitoring data.

**(5) Conclusions and Recommendations:**

- Indication of the extent to which the project conforms to the principles of sound environmental management.
- Summary, in non-technical terms, of the key findings and recommendations of the assessment, including main economic benefits, significant environmental effects and proposed mitigation measures.

- Allocate roles and responsibilities and show how the environmental management plan (EMP) is expected to influence project design, operation and eventual decommissioning.
- Clearly state the institution(s) responsible for the monitoring plan and how the resulting information will influence the operation of the project.
- Sampling protocols and analytical standards should ensure the generation of reliable data.
- Where appropriate and feasible, design the monitoring and follow-up plan to fill in any identified information gaps.

- Demonstrate how the project has been modified to make it more environmentally sustainable and explain any shortcomings which may remain after these modifications are put in place.
- Note any legal, policy, engineering, procedural or administrative impediments to achieving the required changes to, and/or performance standards of, the project.

Suggested format of the environmental assessment report:

- Executive Summary
- Project Description
- Summary of Impacts
- Mitigation Measures
- Unavoidable Impacts
- Favoured Alternative
- Environmental Management Plan
- Monitoring & Follow-up Plan
- Conclusions and Recommendations
- Technical Annex

► **Project Implementation**

**(1) Recommended Actions:**

- Review the technical quality of the environmental assessment report.
- Advise the project proponent, and/or author of the report, of any deficiencies in the environmental assessment and make arrangements for corrective action.
- Advise the locally affected population(s) of the findings of the environmental assessment and seek their comments.
- As appropriate, integrate public comments into the design specifications of the project.
- Enter into binding agreements with all appropriate stakeholders regarding the terms for the execution of the project.
- Ensure implementation of mitigation measures outlined in the environmental assessment report.
- Keep all documentation relating to the environmental assessment on record for future reference.

**• Sample review criteria:**

- (i) Is the project description complete? Does it include all major project activities, as well as ancillary activities essential to the project?
- (ii) Does the report adequately consider alternatives to the project, as well as alternatives means of carrying out the project?
- (iii) Does the scope of the environmental assessment, including the temporal and spatial boundaries of the study, adequately address the project's long-term and cumulative environmental effects?
- (iv) Are all potentially adverse environmental effects considered? Are the significant effects sufficiently examined, and is a justification provided for not giving certain topics further examination?
- (v) Are the study methodology, conceptual setting, and analytical techniques for the environmental assessment technically sound?
- (vi) Does the assessment adequately identify the criteria used to determine the environmental significance of impacts? Are the criteria technically sound?
- (vii) Does the report present a composite picture of present environmental and socio-economic conditions and trends, and how these may be affected by the project?
- (viii) Are appropriate mitigation measures, as well as opportunities to enhance environmental performance, adequately identified?
- (ix) Are the institutional measures for implementing the mitigation measures and the environmental management (EMP) plan well defined?
- (x) Does the report adequately consider the legal, institutional, socio-economic, and cultural settings for the project?
- (xi) Are the critical constraints to the successful execution of the project identified and are measures to avoid them provided?
- (xii) Are the roles and responsibilities of parties to the project clearly identified?
- (xiii) Are the report and its findings acceptable and understandable to the local population(s)?
- (xiv) Are the costs for implementing mitigation measures, conducting monitoring and follow-up plans, and executing the environmental management plan incorporated in the project budget? all parties to the project clearly identified?
- (xiii) Are the report and its findings acceptable and understandable to the local population(s)?
- (xiv) Are the costs for implementing mitigation measures, conducting monitoring and follow-up plans, and executing the environmental management plan incorporated in the project budget?

Stage in Project Cycle

Main components of Environmental Assessment

Procedural & Operational Considerations

► **Monitoring & Follow-up**

- Taking into account the monitoring plan outlined in the environmental assessment, as well as initial observations during project implementation, refine the environmental and social variables to be monitored, the location and timing of the monitoring period, and the use to be made of monitoring data.
- Verify adequacy of mitigation measures and implement corrective action if required.
- Adjust environmental management plan, if required, to take into consideration monitoring results and any unforeseen environmental impacts.
- Review the effectiveness of the environmental assessment and the efficiency of any measures which were put in place to reduce, control, compensate for, or eliminate the project's adverse environmental effects.
- Follow-up plan should be integrated into regular project monitoring activities.
- Establish mechanism to ensure that the results of follow-up and monitoring are integrated into the planning process of future projects which are similar in nature.
- Monitoring results may indicate a need to adjust the goals and objectives of the project or to pursue an iterative approach to project execution.

► **Evaluation**

- Determine composition of evaluation team and prepare terms of reference and/or evaluation framework.
- Encourage the participation of all appropriate stakeholders in the project evaluation, including locally affected populations.
- Retain all assessment and evaluation findings to incorporate lessons learned into future projects.
- Identify measurable indicators to examine whether or not the project has met its overall environmental objectives.
- Identify contributing factors which lead to the success or failure of certain project components.
- Recommend corrective measures to avoid poor performance in environmental management.
- Recommend environmental management and planning needs which could be addressed through subsequent sub-projects or activities.