Canadian International Development Agency
Agence canadienne de développement international

ENVIRONMENT

Handbook for Community Development Initiatives

Second Edition of the *Handbook on Environmental Assessment of Non-Governmental Organizations and Institutions Programs and Projects*

April 2005

Canada

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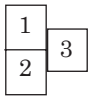
Catalogue No. CD4-19/2004E-PDF
ISBN 0-662-38854-2

Second edition of the document originally produced in 1997 under the title *Handbook on Environmental Assessment of Non-Governmental Organizations and Institutions Programs and Projects*

Cover photos:



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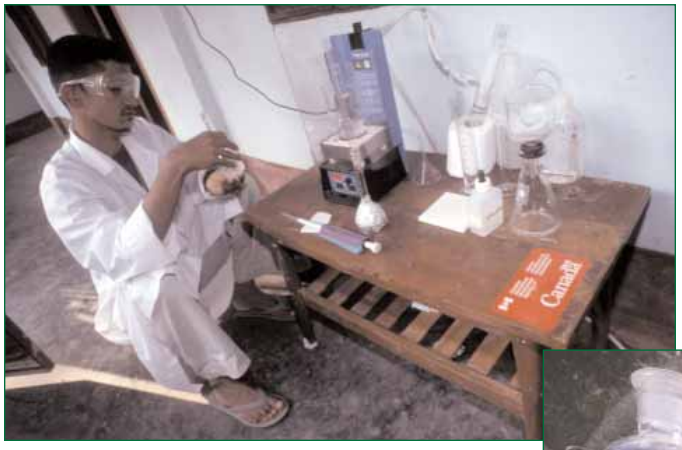
Acronyms

CCIC	Canadian Council for International Co-operation
CEAA	Canadian Environmental Assessment Act
CIDA	Canadian International Development Agency
CPB	Canadian Partnership Branch
EMS	Environmental Management System
NGO	Non-governmental Organization



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Foreword

This handbook is intended to outline the environmental requirements for small-scale community development initiatives, including humanitarian assistance, funded by the Canadian International Development Agency (CIDA). All initiatives supported by CIDA are subject to the same environmental requirements, which are based on *CIDA's Policy for Environmental Sustainability* and the *Canadian Environmental Assessment Act*. This handbook recognizes the specific challenges of incorporating environmental considerations into community development initiatives and provides assistance to organizations involved in these types of initiatives. This handbook is primarily targeted to voluntary sector organizations (non-governmental organizations, institutions, professional associations, universities, colleges, and so on), but may also be useful for private sector organizations involved in small-scale community development initiatives. Private sector organizations seeking funding through the Canadian Partnership Branch's Industrial Cooperation Program should refer to the *Handbook on the Integration of Environmental Considerations into Proposals Submitted to CIDA's Industrial Cooperation Program*.

During the past 15 years, CIDA has undertaken various initiatives to help voluntary sector organizations consider the environmental implications of their activities. For example, in the late 1980s, the Agency funded a series of manuals, entitled "Environmental Screening of NGO Development Projects," which was produced by the Canadian Council for International Co-operation (CCIC). Workshops on environmental issues were also held for voluntary sector organizations across Canada in 1989, 1990–1991, 1997 and 2003.

Although not intended to provide an exhaustive account of approaches and situations, this guide is part of this ongoing support process and is the second edition of the *Handbook on Environmental Assessment of Non-Governmental Organizations and Institutions Programs and Projects,* which was originally published in 1997. There are two major differences between the first and second edition of the handbook.

1. This second edition places greater emphasis on the identification of environmental benefits and opportunities, as well as on environmental follow-up and monitoring aspects.

2. This edition introduces a change in terminology to reflect a streamlined approach within CIDA and to be more consistent with internationally recognized environmental tools and processes. Specifically, a "program environmental analysis" is now referred to as a "strategic environmental assessment." The "environmental assessment" tool is explicitly seen as an overarching tool that addresses both a Canadian legal requirement (the CEAA) and *CIDA's Policy for Environmental Sustainability*. The term "project environmental analysis" is no longer used to refer to a specific tool with predetermined content elements, since it essentially stems from environmental assessment practices, and any analysis will vary according to the nature of an initiative. For organizations that have developed internal tools or procedures reflecting the first edition's terminology, there is no obligation to change existing internal documentation to adopt the terminology used in the second edition.

1. CIDA and the Environment

1.1 Environment and Development Linkages

Reducing poverty and addressing local, regional, and global environmental issues are important present-day challenges. Populations around the world are facing various socio-economic and environmental issues associated with inequitable access to potable water, soil degradation, and climate change, for example. Although poverty does not necessarily lead to environmental degradation, the two are interrelated. In addition, each has the potential to exacerbate the other. Poorer populations are often the most affected by environmental degradation (for example, having to obtain drinking water from polluted water bodies or to farm on marginal lands). They are also the most vulnerable to environmental risks (for example, weather- or geology-related phenomena and conflicts that have natural resource implications).

The environmental tools presented in this handbook recognize this interrelatedness and consider the environment to include both biophysical and socio-economic aspects. Their aim is not only to prevent environmental damage, but also to enhance environmental benefits. These tools can therefore help in developing more effective, better adapted, and contextually relevant development and poverty reduction initiatives, which have better chances of success and of long-term sustainability. Initiatives that integrate environmental considerations and optimize environmental benefits in their design, implementation, and monitoring ascribe to good development practice. Such initiatives can achieve the following:

- promote sustainable development;
- multiply the beneficial effects on the environment, health, and society;
- promote participation by the local population early in the planning process;
- be more acceptable to local populations and various stakeholders;
- clarify linkages between ecosystems, society, and economics;
- clarify environmental and social problems at the outset, thereby making it possible to alleviate or solve them, while avoiding delays and additional costs; and
- enhance the environmental awareness and management skills of Canadian and host country partners.

1.2 Environmental Policy and Regulatory Context

The international community recognizes the interrelatedness of poverty and the environment, and views environmental quality as a key factor for achieving sustainable development. For example, goal number seven of the United Nations Millennium Development Goals (2000) highlights the need to ensure environmental sustainability to efficiently combat poverty and support sustainable development. Many linkages can also be made between the environment and the other Millennium Development Goals. Furthermore, developing and industrialized countries have ratified various multilateral environmental agreements, recognizing the need for transboundary cooperation on regional and global environmental issues. Examples of such agreements include the Kyoto Protocol to the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, the Convention Concerning the Protection of the World Cultural and Natural Heritage, and so on. Beyond these international commitments, a growing number of both industrialized and developing countries are strengthening their environmental policies and

legislation to address environmental concerns at the national level. For example, many countries have developed environmental assessment legislation, and the majority of international aid donor countries and institutions have adopted environmental guidelines and environmental assessment requirements.

The Canadian government's and CIDA's commitment to the environment is reflected in Canada's foreign policy statement, *Canada in the World* (1995). CIDA must comply with the *Canadian Environmental Assessment Act* (CEAA). One key purpose of the CEAA is "to ensure that projects are considered in a careful and precautionary manner before federal authorities take action in connection with them, in order to ensure that such projects do not cause significant adverse environmental effects" [article 4(1), CEAA]. In addition, in accordance with the 1999 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, CIDA must conduct and apply strategic environmental assessments on its proposed policies, plans, and programs.

CIDA's Policy for Environmental Sustainability and *CIDA's Sustainable Development Strategy* emphasize that the environment is both a programming priority and an issue that needs to be integrated in all Agency plans, policies, programs, and activities. Finally, CIDA's commitment to environmental concerns is also reflected in the CIDA document entitled *Canada Making a Difference in the World — A Policy Statement on Strengthening Aid Effectiveness* (2002) and in CIDA's Key Agency Results (published in 2002).

When considering its support for development initiatives, CIDA takes into account the international, Canadian, and host country regulatory environmental frameworks. CIDA is committed to working with its partners to ensure that initiatives are planned, implemented, and monitored in a socially, environmentally, and economically sustainable manner. This handbook, although not intended to provide an exhaustive account of approaches and situations, aims to outline CIDA's environmental requirements and to provide assistance in integrating environmental considerations. The first section of this handbook presents the rationale for environmental integration, as well as the policy and regulatory context associated with this crosscutting theme. Section 2 provides information on the procedures associated with CIDA's environmental requirements for the Canadian Partnership Branch, the Multilateral Programs Branch and the bilateral branches. Section 3 presents environmental tools for meeting CIDA's environmental requirements and enhancing the environmental sustainability of initiatives. Finally, the handbook's accompanying document, entitled "Additional Resources", provides a variety of supporting materials to assist organizations in their efforts to integrate environmental considerations.

2. CIDA's Environmental Requirements and Procedures

As indicated in the Foreword of this document, CIDA's environmental requirements are based on the Agency's *Policy for Environmental Sustainability* and the *Canadian Environmental Assessment Act* (CEAA). This section provides a framework for the environmental requirements and procedures of CIDA's Canadian Partnership Branch (CPB), Multilateral Programs Branch and the bilateral branches. The framework presented in this section serves as a guide, reflecting the most typical situations. Since exceptional cases do arise, partners are encouraged to contact the appropriate CIDA manager or environmental specialist, and to consult contractual documents signed with the Agency, to clarify these aspects. Partners are also encouraged to consult the proposal submission guidelines for the program from which they are soliciting CIDA funding, when such guidelines exists.

2.1 Planning

CIDA's partners are expected to possess a level of environmental institutional capacity commensurate with the degree to which their activities affect the environment. This could include having access to, or resources for, environmental expertise. In addition, partners are expected to integrate environmental considerations into the planning/design of initiatives.

Certain CIDA programs or funds involve the submission of a preliminary proposal (for example, the description of the project concept when applying to bilateral programs, and letters of intent for Tier 1 initiatives of the University Partnerships in Cooperation and Development Program). In these cases, it is appropriate to identify the potential environmental implications of the proposed initiatives. To gain a better understanding of the environmental questions to address, partners may consult proposal submission guidelines, where they exist, or contact the appropriate CIDA manager or environmental specialist.

At the detailed proposal stage, all proposals with environmental implications are expected to contain an environmental component that reflects the scope and nature of the proposed initiative. Environmental considerations should be integrated in a cross-cutting manner within the main text of the proposal and in other key documents (for example, Results-Based Management Planning Sheets, Logical Framework Analysis, and so on). Such proposals must identify the environmental implications of the proposed activities (including the environment's possible impact on the activities) and demonstrate the organization's capacity to manage relevant environmental issues. Consequently, whenever appropriate as per the environmental linkages of the initiative, proposals are expected to fulfil the following.

- Demonstrate the organization's capacity to address the environmental issues associated with the initiative and to meet any environmental requirements stipulated in CIDA

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contractual documents. For example, organizations could include reference to their environmental management system (EMS)[1] if one has been developed, or indicate their environmental experience, expertise, or resources.

- Include an analysis of the environmental implications of the proposed initiative. Typically, such an analysis describes the status of the environment at the initiative's site, clarifies the context with respect to the applicable environmental regulations and policies, and identifies environmental issues or risks associated with the proposed initiative, including its potential impacts and the ways in which they will be managed. It is important to remember that, through the analysis, organizations aim not only to mitigate adverse environmental impacts but also to maximize the initiative's environmental benefits and its contribution to sustainable development.

  Furthermore, in cases where substantial environmental implications are associated with the initiative (for example, the management or transformation of natural resources, infrastructure, construction, and so on), an environmental assessment[2] may be requested to supplement the initial analysis of the initiative's environmental implications. In the specific case of initiatives that constitute a "project" as defined in the CEAA (see Section 3.1.2), this assessment will have to be completed, submitted for review to CIDA, and accepted by CIDA *before* CIDA funds are committed to the initiative's implementation.

  Finally, in the case of program initiatives[3] submitted to CPB and, similarly, initiatives with a number of related sub-components submitted to other branches, a strategic environmental assessment[4] is expected to be included in the proposal to serve as the analysis of the environmental implications of the proposed initiative.

Depending on the nature of the initiative, however, there may be some variations in the procedures described above. These will be determined on a case-by-case basis and stipulated in the contractual document signed with the Agency. It is particularly important to note the CEAA-related responsibilities of CPB's program NGO partners. Box 1 describes these responsibilities.

2.2 Implementation

Although it is important to consider environmental issues during the planning stages, it is equally important to carry environmental considerations through to the implementation and monitoring/evaluation phases. Therefore, reports to CIDA are

1. See Section 3.3. An environmental management system is a systematic management tool that provides a framework for practices, procedures, and processes to implement an organization's environmental policy and manage its environmental action plan, as well as to document, communicate, and evaluate its environmental performance. CIDA strongly encourages organizations that receive program funding from the Canadian Partnership Branch and whose programming has substantial environmental linkages to develop a basic environmental management system (that is, one that presents the organization's environmental policy or objectives, implementation strategy / environmental action plan, and associated tools) as a means of demonstrating their capacity to meet special environmental requirements. This tool can also be used in dealing with other CIDA branches to demonstrate environmental institutional capacity.

2. See Section 3.1. An environmental assessment is a tool and a process for assessing an initiative's environmental effects (biophysical, cultural, and socio-economic; negative and positive), as well as the environment's effect on the initiative. It addresses a Canadian legal requirement (the CEAA) and CIDA's Policy for Environmental Sustainability.

3. A program consists of a series of interconnected activities or sub-components. Generally speaking, a program has a long time frame, a broad scope, and its sub-components may be in various countries or in different regions within a single country.

4. See Section 3.2. A strategic environmental assessment is a tool proposed in line with CIDA's Policy for Environmental Sustainability. Its purpose is to outline the environmental implications of a proposed policy, plan, or program (or initiative with a number of sub-components) and to demonstrate how environmental considerations are integrated. It also serves to identify opportunities to achieve environmental benefits and positive environmental outcomes. This tool is in line with what was referred to as a "program environmental analysis" in the previous edition of this handbook.

Box 1: CEAA-Related Responsibilities of CPB's Program NGO Partners

Given the unique nature of the CPB program funding mechanism, organizations are assigned particular responsibilities for environmental assessment in accordance with the CEAA, as outlined in the environmental clause of their contractual document.

This environment clause contains two sections. The first outlines the organization's responsibility to systematically integrate environmental factors into its decision-making processes (in line with CIDA's Policy for Environmental Sustainability). The second outlines the organization's environmental assessment responsibilities in accordance with the CEAA. In essence, the clause makes these partners responsible for the following:

- determining if the activity requires an environmental assessment in accordance with the CEAA;
- ensuring that an environmental assessment is carried out for all "projects" that require an environmental assessment, once essential "project" details are known and before irrevocable decisions are made;
- ensuring the quality of environmental assessment reports produced (see Box 11);
- determining if the "project" is likely to bring about significant adverse environmental effects;
- ensuring that no part of program funding is used for the implementation of a "project" that is likely to create significant adverse environmental effects; and
- ensuring that identified mitigation measures are implemented.

To better ensure that organizations have the capacity to assume these responsibilities, CIDA encourages them to develop and implement an environmental management system that appropriately reflects the nature and scope of the organizations' programming as it relates to the environment. Although CIDA does not participate in the project-level decision-making process for such organizations, the Agency will ensure that the organizations have established appropriate environmental practices and have the capacity to carry out these responsibilities. During the period covered by the contractual document, and for five years following its end date, CIDA may monitor the environmental practices of the organization. Monitoring may involve the consultation of documents and reports produced by the organization and/or visits to the organization and its sites in the field. In addition, CIDA may request a copy of the environmental assessment reports and may perform environmental audits of the initiatives. Please note that environmental assessment reports completed under this process are not filed with the Canadian Environmental Assessment Registry.

expected to include relevant environmental information pertaining to the reporting period and indicate any changes that may have occurred, in accordance with the environmental requirements stipulated in the contractual document signed with the Agency. Where applicable, these reports must include the following:

- any changes to the organization's approach/capacity in environmental management or assessment;
- results of environmental monitoring/follow-up activities identified in environmental assessments or during the planning and implementation phases of the initiative, as they relate to identified environmental objectives, environmental indicators, and mitigation measures. Please note that the results of an environmental assessment (e.g. chosen mitigation measures and responses to public concerns) or the results of another form of environmental diagnostic can be re-invested in

the results-based management logical framework (e.g. in the activities, results, and risks/assumptions of an initiative).

In the case of initiatives with many sub-components (for example, CPB programs), the report is also expected to include a list of environmental assessments completed for initiatives in accordance with the CEAA during the previous reporting period, as specified in the environment clause of the contractual document signed with CIDA.

This handbook's accompanying document, "Additional Resources", includes environmental follow-up/monitoring tools, which may useful to assist reporting activities.

CIDA monitoring may involve the consultation of documents and/or visits to the organization and its initiatives in the field. Environmental matters will also be considered in the evaluation of organizations.

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3. Environmental Tools

The environmental tools presented in this section are intended to assist in meeting CIDA's environmental requirements and helping to enhance the sustainability of development initiatives. This section outlines the following tools:

- environmental assessments;
- strategic environmental assessments (previously referred to as "program environmental analyses");
- environmental management systems.

Not all tools are required in every circumstance, and partners should consult Section 2 for guidance on CIDA's environmental requirements and procedures. In addition, these tools are not intended to be an exhaustive description of approaches for integrating environmental considerations and conducting assessments of environmental effects. Although certain minimum standards must be met to satisfy CIDA's requirements, partners are encouraged to use and adapt these tools to reflect their realities. The principles on which these tools are based are described in Box 2 below.

Environmental follow-up/monitoring tools are also important for the integration of environmental considerations. The accompanying document to this handbook, "Additional Resources", includes a section dedicated to this topic.

Box 2: Principles of Environmental Tools

Self-assessment
Partner organizations are responsible for anticipating and assessing the environmental effects of their initiatives.

Early application
Environmental tools must be applied at the beginning of an initiative's planning process, before important decisions about its design are finalized.

Comprehensive definition of the terms "environment" and "environmental effect"
All potential environmental effects must be taken into consideration, including effects on the natural environment, health and hygiene, socio-economic conditions, current land and resource use, as well as physical and cultural heritage.

Open and participatory process
Communities in the host country must be consulted, and decisions must reflect their concerns. It is important to include all interested parties. Transparency and accountability to Canadians are also important principles.

Efficiency and cost-effectiveness
The effort and level of detail applied to these tools must reflect the nature and scope of the initiative. Characteristics of the proposed location and the seriousness of the potential effects should determine the extent of the study.

3.1 Environmental Assessments

An environmental assessment is both a tool and a process to assist in planning, environmental integration and decision-making. It serves to define an initiative's environmental dimensions (biophysical, cultural, socio-economic; as well as negative and positive) and to identify measures needed to prevent the initiative from causing ecological damage and generating social costs. It also serves to identify opportunities to achieve environmental benefits and positive environmental outcomes, even when the primary focus of activities is not necessarily environment-related.

An environmental assessment is specific to the initiative and its site, and must consider all components and phases of the initiative. By completing the assessment as early as possible in the planning process, it is possible to alter the design of an initiative to eliminate or minimize adverse effects, while optimizing environmental benefits.

Preferably, organizations will perform environmental assessments with their local partners. Participatory approaches recognize the importance of local community members' participation and help build local capacities to resolve environmental issues. The References section of this handbook provides additional references relating to participatory approaches. This handbook's accompanying document, "Additional Resources", also includes a section on participatory appraisal techniques for addressing environmental matters.

While environmental assessments are based on a broader theoretical foundation outside of CIDA (often referred to as environmental impact assessments), the tool presented here seeks to address a Canadian legal requirement (the CEAA) and *CIDA's Policy for Environmental Sustainability.* The References section of this handbook provides additional references relating to environmental assessments.

3.1.1 Contents of an Environmental Assessment

A typical environmental assessment report to CIDA generally consists of nine components:

A) Description of the Initiative
B) Host Country Legislation
C) Description of the Environment
D) Methodology
E) Analysis of Environmental Effects and Their Significance
F) Public Participation and Concerns
G) Mitigation Measures
H) Follow-Up and Monitoring
I) Conclusion of the Environmental Assessment

The appropriate level of effort and detail in an environmental assessment will depend on the nature, scope, and location of the initiative, as well as its relationship to the CEAA. This handbook's accompanying document, "Additional Resources", contains examples of environmental assessments that reflect different types of initiatives.

A) Description of the Initiative

This section is very important to convey an understanding of the initiative's context. It should describe the following:

- the type of initiative (e.g. construction of latrines, roads, housing) and its purpose;
- the initiative's components, technical specifications, products, and activities that may have environmental implications (including different phases, such as site preparation, construction, implementation, operations, and decommissioning) as well as the planned time frame for implementation;
- the initiative's relationship to the CEAA; if "physical works" are planned, their dimensions, scope, location, and proximity to water bodies and other vulnerable environmental components should be detailed (maps, drawings, and photos may be provided, showing the location, the arrangement of the structures, the site, and its surroundings);
- how the design of the initiative has incorporated environmental objectives and has sought to enhance environmental benefits and opportunities (e.g. an agriculture initiative that promotes organic farming; a microcredit initiative that strengthens the environmental capacities of persons responsible for attributing funds; a health clinic initiative that includes biomedical waste management and activities to raise awareness of the relationships between health and environmental conditions; an irrigation initiative that includes reforestation of the watershed; and so on).

For more complex initiatives, this section may also include the alternatives considered and the rationale for selecting a particular option.

Box 3 contains a brief example of an initiative's description. The purpose is not to describe the initiative's general objectives in detail, but rather to be as precise as possible concerning its components and activities that pertain to the environment. A complete description is important to allow the reader to understand the potential environmental implications of the initiative and determine whether the report appropriately addresses these issues.

Box 3: Brief Example of an Initiative's Description

- Type of initiative: construction of a school to meet the population demand.
- Activities: levelling over an area of 150 m^2, accessing and transporting construction materials, building the school, building the school latrines, drilling a well, conducting classroom educational activities such as laboratory activities, and so on.
- CEAA and structures: 200 m^2 site located at the east of the village of Bainet in Haiti; school building of 120 m^2; closest water body is more than 100 m away; no other vulnerable environmental components were identified on the site and its surroundings; site is adjacent to a residential area, and so on.
- Map/sketch/photo of the site and its neighbouring area, of the main biophysical and human features, and blueprint for the school.
- To optimize the environmental benefits, "train the trainer" activities in environmental education have been integrated into the design of the initiative.

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B) Host Country Legislation

This section should:

- describe the host country's environmental legal requirements that pertain to the initiative (for example, major policies, required permits, applicable standards, environmental assessment requirements, the Local Agenda 21 that stems from the 1992 United Nations Conference on Environment and Development – Rio Earth Summit);
- indicate how the initiative adheres to these requirements.

Any requirements of the host country in terms of the environmental assessment of the initiative must be respected. It is also important that the use of the relevant local legislation and procedures be promoted. It may be possible to complete a single report that addresses both local requirements and CIDA's requirements (including those related to the CEAA, where applicable). In these circumstances, organizations are encouraged to contact their CIDA manager and/or environmental specialists. Finally, multilateral environmental agreements ratified by the host country or Canada and related to the initiative should also be taken into account. Examples of multilateral environmental agreements include the Kyoto Protocol to the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, the Convention Concerning the Protection of the World Cultural and Natural Heritage, and so on.

Table 1: Elements of Description of the Biophysical and Human Environment

Biophysical Environment	Human Environment
• Type of environment (e.g. tropical forest, savanna, coastal zone, wetland) and natural resources; • Main features of the landscape (lakes, rivers, forests, villages, farmland, and so on); • Climate and characteristics of soils, topography, hydrographic network, and groundwater; • Air quality; • Flora and fauna, especially species that are rare, threatened with extinction, vulnerable, or migratory; • Components presenting risks of natural disasters; • Features that are particularly fragile, sensitive, or important from an ecological point of view (e.g. biological or cultural diversity, bodies of water, steep slopes, mangrove forests).	• Human settlements (e.g. villages, roads, utilities); • Agricultural, industrial, and other land use and plans; • Socio-economic activities, activities generating income, and areas of resource collection; • Quality of life; • Security; • Population density; • Sanitary conditions; • Social structure; • Cultural values; • Customs and ways of life; • Sites of socio-economic, spiritual, heritage, historical, cultural, or archaeological significance.

C) Description of the Environment

This section describes the features of the environment, and specifies the current state of the environment, including the extent to which the environment has already been disturbed or is particularly fragile. It is important to focus on components of the environment that may affect or be affected by the initiative and that are particularly sensitive, or socially and ecologically important. The absence of such sensitive or important elements should be stated explicitly. Maps, drawings, and photos are often useful. The biophysical environment and the human environment must be covered (see Table 1 for examples). Without a comprehensive description of the environment, a reader cannot assess the accuracy of the environmental assessment.

D) Methodology

This section should describe where and how the information was collected, presented, and interpreted for conducting the environmental assessment, including the following:

- sources of information and references (e.g. documents and websites, government agencies,

Box 4: Examples of the Environment's Effect on the Initiative

- Flood damage to crops, infrastructures, and populations
- Soil instability that damages human settlements and infrastructures
- Damage to a dam or irrigation structure from erosion and alluviation
- Water level fluctuations affecting agricultural activities or water availability
- Earthquake damage or damage caused by other "natural catastrophes"
- Crop damage caused by displaced wildlife, and so on.

Box 5: Examples of Positive Effects

Potable water distribution and sanitation initiative:

- Improved health conditions and quality of life
- Cleaner and more easily accessible drinking water
- Improved sanitation, and so on.

Agroforestry initiative that integrates environmental practices:

- Improved health conditions and quality of life
- Improved soil quality: soil amendment programs, soil conservation programs, programs to control desertification and soil erosion
- Regeneration of natural resources: reforestation
- Increased incomes as a result of regenerated natural resources
- Restoration of wildlife habitats
- Biodiversity conservation
- Community participation in the regeneration of natural resources and environmental improvement, and so on.

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Box 6: Examples of Adverse Effects That May Be Associated With an Intensified Agriculture Initiative Accompanied by Irrigation Structures

- Health problems caused by the inappropriate use of chemical fertilizers and pesticides
- Risks of water-borne diseases associated with the creation of stagnant water ponds
- Deforestation and deterioration of wildlife habitats
- Reduced biodiversity in terms of ecosystems or species
- Health and occupational safety risks related to the inappropriate use of machinery
- Erosion, salinization, or soil degradation
- Depletion and degradation of water sources
- Conflicts over the use of land or water and possible cumulative effects of an inequitable distribution of land or water rights
- Problems affecting women in particular, for example, limited access to natural resources, land, or water
- Health and safety risks related to potential accidental spills of pesticides in water
- Conflict with local cultural values, and so on.

universities, local population, groups consulted, expertise of persons providing technical advice);
- information gathering methods (e.g. field visits, surveys, literature review, technical analyses, and methods for ensuring public participation);
- who conducted, and was involved in, the assessment;
- methods of assessing environmental effects and their significance (determining the significance is a legal requirement of the CEAA, which helps to justify the conclusion of the environmental assessment).

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E) Analysis of Environmental Effects and Their Significance

This section is central to the objectives of an environmental assessment. It should describe the initiative's effects (for all components/activities and phases) on the environmental components and determine the significance of these effects. In particular, it should include the following:

- the initiative's positive and adverse effects on the biophysical and human environment;
- the environment's effects on the initiative (e.g. likely weather-related phenomena, such as cyclones and other tropical storms, tornadoes, floods, wildfires, and drought; as well as likely geology-related events, such as earthquakes, volcanic activity, and landslides);
- cumulative effects (e.g. the effects that are likely to result from the initiative in combination with other structures, initiatives, or activities that have been or will be carried out in the area);
- effects of potential accidents (e.g. the risks of pollution associated with chemical product spills) or malfunctions (e.g. the risks for workers' health and occupational safety in the event of machinery malfunctions).

This handbook's accompanying document, "Additional Resources", includes tools to help identify the environmental effects of specific activities and presents appropriate guidelines, mitigation measures, and environmental indicators associated with each sector of activity. Boxes 4, 5 and 6 present examples of various kinds of effects.

The significance of each of the predicted effects must be determined:

- First, an effect is qualified as being either negative or positive.
- Second, a scale is used to determine the severity of the effect; for example, an effect of low, medium, or high significance. It is not sufficient to simply state the significance of the effect. This determination must be justified, coherent, and documented, notably by a determination methodology, which must be described in the methodology section of the report.

There are many recognized methodologies to determine the significance of effects. One such example is presented in Box 7.

F) Public Participation and Concerns

This section should describe the following:

- the efforts made to engage the public and those affected by the initiative, to ensure social representation, and to promote sensitivity toward indigenous knowledge, and social and traditional values;
- demographic characteristics of the participants (e.g. gender, age, ethnic group, socio-economic group);
- public concerns and expectations with respect to the initiative;
- controversial points that have been raised;
- responses to public concerns (and additional meetings that may be conducted to ensure a thorough understanding of the initiative and the results of the environmental assessment).

Box 7: Example of Methodology to Determine the Significance of the Predicted Effects

A comparative analysis of the following criteria can be useful in making a determination on the significance of each of the predicted effects.

- *Probability/risk:* What is the probability that the effect will occur?
- *Value:* Will the effect influence rare environmental components, environmental components of social importance and of importance for the ecological balance?
- *Intensity:* What intensity of stress will be generated by the effect? What will be the capacity of the environmental components to withstand the changes induced? To what degree (e.g. low, medium or high) will the environmental component be altered?
- *Geographical scope:* Over what distance (e.g. locally, regionally, or globally) could the effect be felt?
- *Duration:* How long could the effect last? Would the effect be felt on a short-term basis or on a long-term basis? Will it be recurrent? Persistent? Cumulative?

The effect of an initiative can be considered significant if, for example:

- it causes permanent damage to a scarce natural resource or one that has ecological or socio-economic importance (e.g. water, soil, forests, fisheries, a traditional way of life);
- it takes place in a particularly sensitive area (e.g. near a source of drinking water, a protected site or a steep slope that is vulnerable to erosion);
- it directly affects the health of the population (e.g. toxic substances released into the ground or directly into waterways).

G) Mitigation Measures

This section is also very important in relation to the basic objectives of an environmental assessment. It deals with the measures that will be implemented to avoid or reduce adverse environmental effects and to increase the positive environmental effects of the initiative. This section also deals with mitigating the effects of the environment on the initiative (for example, measures serving to prepare for natural disasters and/or to reduce the impact of natural hazards). This last aspect is also referred to as disaster risk management or a disaster preparedness strategy.

This section should describe the following:

- mitigation measures (see Table 2 for examples, including examples of disaster risk management / disaster preparedness strategy);
- residual effects (the effects that may persist in spite of the mitigation measures applied), their significance (as also mentioned under the section "analysis of environmental effects and their significance") and uncertainty factors.

The accompanying document, "Additional Resources", includes tools to help identify the environmental effects of specific activities and presents appropriate guidelines, mitigation measures, and environmental indicators associated with each sector of activity.

Table 2: Examples of Mitigation Measures

Environmental Effect	Possible Mitigation Measure
Adverse effects on fragile sites or sites of particular value (water bodies, drinking water source, steep slopes, cultural sites)	• Locating the initiative far from fragile or valued site • Establishing a vegetative buffer zone between development activities and fragile or valued site
Soil degradation/instability during construction (erosion, exposure to weather, excessive compaction, pollution from machinery)	• Environmental ethics during construction work (such as minimizing vegetation clearing, protecting disturbed soils from wind and rain, minimizing use of heavy machinery, using anti-erosion or soil stability structures)
Deforestation and adverse health effects of greenhouse gas emissions and air pollution from firewood combustion	• Improved stoves • Alternative energies (such as solar energy) instead of fossil fuels • Awareness or training in forest conservation • Reforestation with indigenous (locally adapted) species
Soil degradation associated with intensive agriculture	• Measures to reduce erosion and conserve soils (such as soil amendment, live hedges and agroforestry, anti-erosion structures) • Appropriate crop rotation • Use of locally adapted crop species or those that can restore nutrients to soil • Environmental awareness or training in such measures or in organic agriculture techniques

Table 2: Examples of Mitigation Measures (Cont'd)	
Environmental Effect	**Possible Mitigation Measure**
Negative health effects from surface water degradation (both in quantity and quality) associated with nearby housing initiative	• Measures to protect water bodies (such as monitoring water quality and flow, rehabilitating banks with vegetation, creating buffer zones, collecting garbage) • Locating latrines and other pollution sources away from water bodies and steep slopes • Avoiding the creation of stagnant water ponds to reduce risks of water-borne diseases • Environmental/sanitation awareness or training
Water/soil pollution and human health concerns associated with solid waste generation	• Environmentally friendly waste management practices (such as re-using paper and other products, recycling, source separation of biomedical wastes and their proper disposal) • Composting organic wastes and use as a fertilizer • Environmental awareness or training
Adverse health and safety effects associated with the use of harmful or dangerous products (agrochemicals, electronic wastes, machinery lubricants)	• Minimize use of dangerous materials by seeking out alternatives to dangerous products • Environmental awareness or training in the safe and rational use of dangerous products • Proper storage of dangerous products
Adverse effects on human populations affected by an upstream water diversion initiative	• Joint committees of local representatives to ensure fair distribution of the initiative's benefits and/or compensation to downstream users • Determine and maintain adequate flow levels to ensure continued access to water of downstream populations (and ecosystem health)
Adverse effects of natural hazards on a housing initiative	• Land-use planning that guides the expansion of human settlements away from high hazard zones • Education and public awareness • Establishment and enforcement of design and construction standards to ensure that the buildings are able to withstand extreme weather- or geology-related events • Agricultural and land management practices that protect soils and water • Forest management and watershed protection to reduce flood hazard

H) Follow-Up and Monitoring

Follow-up and monitoring activities aim to assess the real effects of an initiative and identify effects that may not have been predicted at the planning stage. Proper follow-up and monitoring also ensure that mitigation measures have been implemented and are effective. If necessary, follow-up and monitoring activities identify additional measures to address previously unforeseen effects.

Environmental follow-up and monitoring are integral to an initiative's overall management and sustainability. These activities also help to identify examples and lessons from the initiative to help improve efficiency and quality, and ensure the sound budget management of future interventions.

This handbook's accompanying document, "Additional Resources", includes tools to assist in conducting environmental follow-up/monitoring activities.

In the environmental assessment report, this section should describe the planned follow-up and monitoring of environmental characteristics.

- **Items to be monitored**
  Potentially significant environmental effects, sensitive components of the environment, and any uncertainties are generally monitored (e.g. water quality, emissions, equipment maintenance, and risks of conflict). Monitoring should also determine whether or not mitigation measures were implemented and effective.

- **Follow-up/monitoring methods and schedule**
  The intent is to describe how, where, and according to what schedule these activities will take place (e.g. monthly water samples, field visits, interviews, and so on, in close association with environmental indicators). It is important to build in sufficient flexibility to accommodate additional measures when necessary.

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- **Roles and responsibilities**
  The intent is to identify the persons responsible for implementing these tasks and ensuring that the results are acted upon (e.g. team leader, community committee, and so on).

- **Reporting methods and schedule**
  The intent is to describe how and when follow-up/monitoring results will be reported to enable the analysis of lessons learned and their feedback into future initiatives. Responsibilities for acting upon the results of follow-up/monitoring activities are also addressed.

Boxes 8, 9 and 10 provide additional information on planning for environmental follow-up and monitoring.

Box 8: How Are Environmental Effects Monitored?

Monitoring can simply involve informal observation of environmental conditions by community members (e.g. severity of erosion, amount of sediment in streams, unusual odours or colours in streams, health of vegetation). More rigorous monitoring involves field surveys and/or collecting and testing samples to identify changes in environmental conditions and the presence of pollutants (e.g. soil, water, air, and so on, or the analysis of cartographic and aerial data). The important thing is to identify which effects are the most problematic and how they can be monitored with the funds and expertise available. Regular observations by community members, with the use of formal surveys or sampling if significant problems seem to be occurring, may be a practical and effective strategy. It is thus important to build local environmental monitoring capacities.

Box 9: Refugee Operations and Environmental Follow-Up and Monitoring

Refugees develop different coping mechanisms in response to their food, energy, and economic situation, which should be monitored closely to minimize adverse environmental impact. "Changing food rations in refugee households will lead to a change in their coping mechanisms. For example, if the ration is reduced, then the scope for sale or exchange of distributed food is diminished and alternative income-generating activities are likely to emerge. These may include firewood cutting, charcoal making or other potentially destructive enterprises. The socio-economic situation of refugees, therefore, needs to be understood and monitored, including their access to resources, level of dependency on food aid, subsistence food production and local purchases, and economic survival strategies" (United Nations High Commissioner for Refugees, 2002).

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Box 10: What Is an Environmental Management Plan?

An environmental management plan (EMP) is a tool that is very similar to an environmental follow-up and monitoring plan, and this terminology may be used when dealing with environmental integration at CIDA. The basic elements of an EMP typically include a description of the proposed mitigation measures (and associated effects) and how they will be implemented; the remaining environmental concerns and how they will be managed; the program for monitoring the environmental effects of an initiative; the EMP's implementation schedule; who will be responsible for implementing the EMP, and the budget estimate (including sources of funds). (Adapted from Boyle and Patterson, 2002).

I) Conclusion of the Environmental Assessment

The conclusion of the environmental assessment report must indicate whether or not the organization expects that the initiative will have significant adverse environmental effects, in view of the mitigation measures that will be implemented.

Box 11 presents the items that generally serve to assess the quality of an environmental assessment report.

Box 11: Assessing the Quality of the Report

The quality of an environmental assessment report is generally assessed on the basis of the following items:

a) Does the report contain *all relevant components*, given the scope, nature, and location of the initiative, and its relationship to the CEAA (environmental effects, comments from the public, mitigation measures, significance of the effects, other relevant matters, and so on)?
b) Is the report well *structured* and sufficiently *clear* to be consulted by the public, if necessary?
c) Does the report reflect an *appropriate level of detail*? Have *all relevant issues* been taken into account?
d) Are there significant *gaps* in the information or the assessment?
e) Are the analytical *methods* and *results* considered satisfactory?
f) Are the proposed *mitigation measures* adequate?
g) Have *public concerns* been given due consideration, and have efforts been made to ensure representativeness of the community's demographics?
h) Is the proposed *follow-up* program appropriate?
i) Have the necessary *arrangements* been made with the appropriate institutions to guarantee *implementation* of the planned mitigation and follow-up measures?
j) Are the *sources* of information reliable?
k) Are *assumptions* and *uncertainties* explicitly mentioned?

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3.1.2 Environmental Assessment Under the CEAA

Section 3.1.1 presents the content for an environmental assessment that meets CEAA requirements and incorporates broader environmental considerations associated with *CIDA's Policy for Environmental Sustainability*. Given that CIDA is legally required to comply with the CEAA, there is no flexibility regarding certain elements of content in those cases where an initiative requires the completion of an environmental assessment under the CEAA (Section 3.1.2.1 outlines the types of initiatives that constitute a "project" as defined by the CEAA). The CEAA stipulates that an environmental assessment must consider factors such as the environmental effects of an initiative, comments from the public received in accordance with the CEAA, mitigation measures, the significance of the effects, and other relevant matters. However,

to convey a proper understanding of the initiative and its environmental implications and to respect *CIDA's Policy for Environmental Sustainability,* the environmental assessment report completed in accordance with the CEAA, for CIDA's purposes, must cover all items listed in Section 3.1.1.

There are also specific procedures with which CIDA must legally comply in cases where an environmental assessment is required under the CEAA. For example, environmental assessment reports conducted under this process must be completed, reviewed, and accepted before irreversible decisions are made, and before CIDA funds are committed to the implementation of activities related to the "project" as defined by the CEAA. CIDA will determine whether or not the initiative is likely to cause significant, adverse environmental effects, on the basis of the report provided by the organization and any other information that CIDA deems relevant. If the adverse environmental effects are significant and cannot be mitigated, or if there are major public concerns that remain unresolved, CIDA funds cannot be used to finance the initiative.

CIDA reserves the right to take any action necessary to ensure compliance with its requirements and those of the CEAA, when necessary. These actions include, but are not limited to, asking for additional information, terminating its participation in the initiative, or imposing any mitigation or follow-up measures necessary to reduce, eliminate, or control any adverse environmental effects of the initiative.

Environmental assessment reports completed under the CEAA will be placed in the Canadian Environmental Assessment Registry for consultation purposes (see Box 12), and mediation or assessment by a review panel may be employed, if necessary.

Box 12: Canadian Environmental Assessment Registry

Environmental assessment reports carried out under the CEAA process, and their associated documents, are filed in the Canadian Environmental Assessment Registry. These documents are available for consultation by the general public. Within 14 days of the commencement of an environmental assessment, a notification will be included on the Canadian Environmental Assessment Registry Internet site. The Canadian Environmental Assessment Registry has two components: i) an Internet site, administered by the Canadian Environmental Assessment Agency, which provides basic information about all initiatives assessed; and ii) paper files, accessible to the public, which contain all the records and documents related to each assessment.

Documents filed in the Canadian Environmental Assessment Registry are accessible, pursuant to the CEAA. To facilitate inclusion in the registry, it is recommended that the organization give its written consent for disclosure of the environmental assessment, on a sheet bearing the organization's letterhead and the signature of an authorized person. An example of the statement of consent is as follows:

On behalf of [name of the organization], I give my consent for the Canadian International Development Agency (CIDA) to disclose, in whole or in part, the information contained in the environmental assessment file for the above-mentioned initiative.

3.1.2.1 What Is a "Project" Under the CEAA?

The CEAA calls for the completion of an environmental assessment for initiatives that include any proposed construction, operation, modification, decommissioning, abandonment or undertaking in relation to a physical work, unless the activity is specified in the *Exclusion List Regulations* or is carried out in response to an emergency situation.

- A physical work is a physical structure in a fixed location. A physical work could include housing,

clinics, schools, water provision and sanitary systems, dams, irrigation systems, aquaculture basins, roads, factories, buildings, and other civil engineering infrastructures. Training, capacity building, and technical assistance may require the completion of an environmental assessment in accordance with the CEAA in cases where such activities are intrinsically related to a physical work (e.g. training provided to people responsible for constructing or operating a specific dam or a specific irrigation system).

- The *Exclusion List Regulations* outline the physical structures that do not require the completion of an environmental assessment in accordance with the CEAA. These structures are generally small in scope or temporary in nature; thus, their environmental effects are considered relatively minor. The *Canadian Environmental Assessment Agency's website* presents the details of this regulation. Box 13 presents some of the situations typically encountered for community development initiatives.

- An emergency situation refers to an immediate and imminent danger. For example, initiatives undertaken immediately in response to a hurricane (such as the provision of temporary shelter, construction of latrines, and so on) can be considered as emergencies. However, reconstruction and rehabilitation initiatives undertaken in the following weeks or months (e.g. involving housing, construction of a school, and so on) are not emergencies under the CEAA. In addition, droughts are usually not considered to be emergency situations under the CEAA, because they are more predictable and generally occur over a longer time scale. Such situations should be discussed with CIDA personnel on a case-by-case basis.

  Regardless of CEAA applicability, the integration of environmental considerations is warranted in emergency response situations, as in other situations, because of the inter-relatedness of poverty, peace, security, and the environment. To address such complex issues in the context of emergency situations, the practice of rapid environmental assessments is gaining acceptance at the international level. The principal intent of such a process is to address the priority environmental issues and to avoid negative and irreversible effects.

Box 13: Excerpts From the *Exclusion List Regulations*

The activities listed in the *Exclusion List Regulations* that are most commonly associated with community development initiatives are those related to the size and scope of the physical work, its proximity to a water body, and its likely release of a polluting substance into a water body. Examples include the following:

- the maintenance or repair of an existing physical work;
- the construction of a building with a footprint of less than 100 m^2 and a height under 5 m, located more than 30 m from a water body and not involving the likely release of a polluting substance into a water body;
- the expansion or modification of an existing building with an increase of less than 10 percent in footprint or height, located more than 30 m from a water body and not involving the likely release of a polluting substance into a water body;
- the construction of a physical work with a footprint of less than 25 m^2, located more than 30 m from a water body and not involving the likely release of a polluting substance into a water body.

A brief exercise is included in Appendix A to assist in determining which initiatives require the completion of an environmental assessment in accordance with the CEAA.

Please note that the CEAA is also accompanied by the Inclusion List Regulations, which describe activities that may require the completion of an environmental assessment, even though they are not necessarily physical works. This regulation can be accessed through the *Canadian Environmental Assessment Agency's website*. Community development initiatives are very rarely associated with these categories of activities. Nevertheless, organizations should be aware of this regulation.

3.2 Strategic Environmental Assessments

The purpose of a strategic environmental assessment is to outline the environmental implications of a proposed policy, plan, or program and to demonstrate how environmental considerations are integrated. It also serves to identify opportunities to achieve environmental benefits and positive environmental outcomes, even when the primary focus of the initiative is not necessarily related to the environment. The strategic environmental assessment tool is based on internationally recognized theory and is proposed in line with *CIDA's Policy for Environmental Sustainability*. For CIDA's partners, this tool is very useful in demonstrating the potential environmental implications of initiatives that have a number of related sub-components.

CIDA supports a certain number of initiatives that are comprised of different sub-components. Program funding, mainly through CPB is one such example. A program consists of a series of interconnected activities or sub-components. Generally speaking, a program has a long time frame, a broad scope, and the sub-components may be in various countries or in different regions within a single country. In the first edition of this handbook, the strategic environmental assessment tool was referred to as a program environmental analysis.

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There is no single method for conducting a strategic environmental assessment, and organizations are encouraged to adapt the tool to best reflect their realities. The main challenge is in assessing the environmental issues from a broader, holistic view, rather than at the level of a specific activity. This tool is used in the planning stages of an initiative to identify major issues that can be addressed before the individual sub-components of the initiative are designed. The strategic environmental assessment can also identify issues that will have to be addressed at the sub-component / site-specific level.

In the case of program-funded organizations that are potentially carrying out "projects" as defined by the CEAA, the strategic environmental assessment is also used to demonstrate that the organization has the required capacities to meet the CEAA-related responsibilities (see Box 1), as specified in the contractual document signed with CIDA.

The main elements of a strategic environmental assessment are set out in Table 3. A strategic environmental assessment may also include a comparative analysis of the different feasible

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options for delivering a policy, plan, or program. The level of effort required to complete this tool is flexible. The level of detail required will vary according to the nature of the activities. (CIDA personnel may be contacted for clarifications.) Where applicable, the strategic environmental assessment should include references to relevant documents, such as the organization's environmental management system (see Section 3.3) or other documents that guide the organization's activities in relation to the environment.

While strategic environmental assessments are based on a broader theoretical foundation outside of CIDA, the tool presented here has been adapted to reflect the context for CIDA's partners and the Agency's *Policy for Environmental Sustainability*. The References section of this handbook provides additional references relating to this tool.

Table 3: Strategic Environmental Assessment

A) Institutional Environmental Capacities or Environmental Management System (see also Section 3.3)
• Description of the organization's environmental statement, policy, or objectives.
• Description of the organization's strategy, procedures, and tools to ensure that environmental factors are taken into account in the initiative's planning (e.g. environmental guidelines and/or criteria for project selection, environmental assessment procedures), implementation, monitoring, and evaluation.
• Description of the organization's environmental management structure, associated environmental management responsibilities, and financial resources.
• Description of the organization's experience in dealing with environmental issues and the environmental expertise to which the organization has access.
B) Environmental Integration
• Description of how environmental considerations will be integrated into all relevant aspects of the initiative and opportunities for achieving environmental benefits and positive environmental outcomes.
• Definition of environmental objectives and indicators for assessing results within the initiative (included, for example, in the results-based management planning sheet as specific items and/or as a crosscutting theme), when pertinent.

Table 3: Strategic Environmental Assessment (cont'd)
B) Environmental Integration (cont'd)
• Identification of the activities/sub-components that may require an environmental assessment in accordance with the CEAA.
• Description of the major environmental issues likely to be associated with the initiative and how they will be managed (scope and nature of potential effects, need for mitigation and opportunities for enhancement, scope and nature of residual effects, need for follow-up/monitoring or an environmental management plan, public and stakeholder concerns). Please note that this is not an activity-specific exercise, but rather a broader look at the initiative on the whole.
• Description of the main environmental features of the host country(ies) that could have an impact on the initiative: national/local priorities, laws, policies, strategies (such as the Local Agenda 21 that stems from the 1992 Rio Earth Summit), and responsible government authorities; local environmental resources (e.g. institutions and organizations) that can provide environmental information and advice; significant environmental issues facing the country(ies).
• Description of the needs and strengths of local partners in terms of environmental management and assessment, and of the mechanisms proposed to build environmental capacities and exchange relevant information on environmental matters between the Canadian organization and its local partners.

3.3 Environmental Management Systems

An environmental management system is a tool used to translate environmental commitments into practice. It is a systematic management tool that provides a framework for practices, procedures, and processes to implement an organization's environmental policy, and manage its environmental action plan, as well as document, communicate, and evaluate its environmental performance. It allows an organization to ensure that its environmental goals are being met effectively and efficiently and also sets out a comprehensive way to monitor progress toward those environmental goals.

This type of tool is recognized internationally and can be useful for any organization wishing to improve and document the environmental performance of its activities in the field, as well as its internal operations. CIDA strongly encourages organizations that receive program funding from CPB, and whose programming has substantial environmental linkages, to develop a basic environmental management system as a means of demonstrating their capacity to meet particular environmental requirements (as explained in Section 2.1). A basic environmental management system typically includes the elements presented in Table 4 below. The level of detail of an environmental management system varies between organizations, depending on the nature of

operations. Fairly extensive systems are suggested for those organizations that carry out physical works "projects", as defined by the CEAA (for example, housing, water provision, and sanitary systems), or other activities that are closely related to the environment and natural resources (for example, forestry, agriculture, aquaculture). Please note that this tool can also be used in dealing with other CIDA branches to demonstrate environmental institutional capacity.

Although an environmental management system is a recognized tool outside of CIDA, the tool presented here is adapted to reflect CIDA's context and the principles of the Agency's *Policy for Environmental Sustainability.* The References section of this handbook provides additional references relating to this tool.

Table 4: Basic Environmental Management System

Environmental policy	• Environmental statement/vision • Environmental objectives and indicators
Implementation strategy or environmental action plan	• Strategy to attain the goals set out in the policy and to integrate environmental considerations in all aspects of decision-making and all stages of the initiative's cycle • Environmental roles and responsibilities (within the organization and between the organization and its partners) and financial resources • Environmental awareness and training programs • Follow-up and evaluation mechanisms to ensure that the implementation strategy is effective • Assessment of lessons learned (using results-based management) and method of re-integrating these lessons into the planning and/or performance monitoring process of initiatives
Associated tools	• Environmental guidelines and/or criteria for the selection and monitoring of initiatives • Environmental assessment procedure in accordance with the CEAA to be applied early in the planning process, through a participatory approach and including a mechanism to capture "projects" requiring the completion of such an environmental assessment, as well as a reporting and filing process • Other tools to assist the environmental assessment procedures or to facilitate the integration of environmental considerations (e.g. checklists)

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For more information of the CEAA and its regulations, contact:

Canadian Environmental Assessment Agency
Place Bell, 160 Elgin Street
22nd Floor
Ottawa, Ontario, Canada
K1A 0H3
Tel.: (613) 957-0700
Fax: (613) 957-0935
Website: http://www.ceaa.gc.ca

For more information on CIDA's environmental requirements, contact the environmental specialists of CIDA's branches or the following:

Canadian International Development Agency
200 Promenade du Portage
Gatineau, Quebec, Canada
K1A 0G4
Tel.: 1-800-230-6349
E-mail: environment_cpb@acdi-cida.gc.ca
Website: http://www.cida.gc.ca/ea

Other sources of information on participatory approaches:

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Many of the documents produced by CIDA are available on the following website:

http://www.cida.gc.ca/ea
The following index of websites related to environmental assessment has been compiled by CIDA in collaboration with the International Association for Impact Assessment (IAIA):
http://www.iaia.org/eialist.html

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Glossary

Canadian Environmental Assessment Registry: The registry was created for the purpose of facilitating public access to records relating to environmental assessments in accordance with the CEAA.

Cumulative effects: The CEAA requires the assessment of an initiative's cumulative effects. These are the effects that are likely to result from the initiative in combination with other structures, initiatives, or activities that have been or will be carried out. Examples are the cumulative effects of various water extraction activities that contribute to an inequitable access to potable water, or the cumulative effects caused by increased transport demand and vehicular traffic. To accurately predict the effects of the proposed initiative, other initiatives in the area that may have an effect on the same environmental components must be taken into account.

Environment: The CEAA defines the environment as the "components of the Earth, and includes: (a) land, water, and air, including all layers of the atmosphere; (b) all organic and inorganic matter and living organisms; and (c) the interacting natural systems that include components referred to in paragraphs (a) and (b)".

Environmental assessment: CIDA views an environmental assessment as a tool and a process for assessing the environmental effects (biophysical, cultural, and socio-economic; negative and positive) of initiatives, as well as the effect of the environment on such initiatives. It addresses a Canadian legal requirement (the CEAA) and *CIDA's Policy for Environmental Sustainability.*

Environmental components: They are the features of the natural and human environments in the area affected by an initiative. Examples are specific ecosystems, soil, water, air, vegetation, wildlife, a human population and its specific socio-cultural and economic characteristics, use of lands and resources, places of worship, historic sites, meeting places, and so on.

Environmental effects: They include effects on both the natural environment and the human environment. Environmental effects are defined in the CEAA as "(a) any change that the project may cause in the environment, including any effect of any 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 on any structure, site or thing that is of historical, archaeological, paleontological, or architectural significance; and (b) any change to the project that may be caused by the environment". This includes effects of malfunctions or accidents that may occur in connection with the initiative and the cumulative effects that are likely to result from the initiative in combination with other structures, initiatives, or activities that have been or will be carried out.

Environmental indicators: An indicator is a measurement, number, fact, standard, opinion, or perception that helps measure progress toward achieving results. There are both quantitative and qualitative indicators. Each indicator should be directly related to the result being measured, as well as based on readily available data. It is also important to ensure that indicators consider social elements such as gender, social group, and ethnicity. Once indicators are identified, the next step is to determine the sources of information for these indicators and how the information will be collected (including frequency, location, and responsibilities).

Environmental management system: An environmental management system is a systematic management tool that provides a framework for practices, procedures, and processes to implement an organization's environmental policy and manage its environmental action plan, as well as document, communicate, and evaluate its environmental performance. CIDA strongly encourages organizations that receive program funding from the Canadian Partnership Branch and whose programming has substantial environmental linkages to develop a basic environmental management system (that is, which presents the organization's environmental policy or objectives, implementation strategy / environmental action plan and associated tools) as a means of demonstrating their capacity to meet special environmental requirements. This tool can also be used in dealing with other CIDA branches to demonstrate environmental institutional capacity.

Mitigation measures: They are measures that effectively control, eliminate, or significantly reduce an initiative's adverse environmental effects, or enhance its environmental benefits. These measures may include changing the location of an initiative to a more appropriate site; modifying the design, plan, implementation period, and construction techniques; or using environmentally friendly production procedures and techniques or replacement technologies that conserve energy, prevent the emission of pollutants, reduce waste, promote recycling, and so on. Mitigation measures may also include actions to rehabilitate the environment, notably by replacement or restoration (e.g. reforestation). In some cases, financial or material compensation for damages caused may also be considered (e.g. the replacement a house). However, these measures should be used judiciously, when, for example, it is impossible to mitigate an effect but the initiative's benefits are such that these options merit consideration.

Polluting substance: A polluting substance is defined by the CEAA as "a substance that, if added to a water body, 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 to an extent that is detrimental to its use by human beings, animals, fish, or plants". Please note that this CEAA definition is linked with specifics of the *Exclusion List Regulations*; when dealing with environmental matters as a whole, all types of pollution must be taken into account.

Rapid environmental assessment: The principal intent of this type of assessment is to address the priority environmental issues associated with a given situation and to avoid negative and irreversible effects. It is inspired by environmental assessments and can be used in "emergency situations". This tool typically involves an emergency context statement (a summary of the emergency situation and highlights of salient environmental factors), a rapid identification of current demands on the environment, a rapid evaluation of factors with an immediate impact on the environment, and the identification of potential negative consequences of possible relief operations (adapted from Kelly, December 2001).

Residual effects: They are effects that are expected to result from an initiative, in spite of the mitigation measures that will be implemented. The significance of each of these effects must be determined. The significance of the residual effects is the basis for determining if CIDA funds can be applied to the activity. It is important that these residual effects be monitored.

Strategic environmental assessment: This is a tool proposed in line with *CIDA's Policy for Environmental Sustainability*. Its purpose is to outline the environmental implications of a proposed policy, plan, or program (or initiative that has a number of sub-components) and to demonstrate how environmental considerations are integrated. It also serves to identify opportunities to achieve environmental benefits and positive environmental outcomes. This tool is in line with what was referred to as a **"program environmental analysis"** in the previous edition of this handbook.

Water body: A water body is defined by the CEAA as "including a canal, reservoir, an ocean, and a wetland, up to the high-water mark, but does not include a sewage or waste treatment lagoon or a mine tailings pond". Please note that this CEAA definition is linked with specifics of the Exclusion List Regulations; when dealing with environmental matters as a whole, all types of surface and underground waters must be taken into account.

Other useful definitions may be found in CIDA's CEAA on-line and off-line Work Tool (CIDA, June 2003).

Appendix A
Exercise: What Is a "Project" Under the CEAA?

When faced with a proposed initiative, two main questions should be asked to help determine whether an environmental assessment in accordance with the CEAA is required:

1) Is the initiative a physical activity in relation to a "physical work"?
2) Is the initiative included in the *Exclusion List Regulations* or is it a response to an emergency situation?

The following examples provide an opportunity to practice identifying the types of initiative that would require the completion of an environmental assessment in accordance with the CEAA.

Is an environmental assessment in accordance with the CEAA required for…
- the construction of a new irrigation structure?

Answer: Yes, since there is a physical work as defined by the CEAA. Furthermore, this physical work would take place in or close to a water body.

Is an environmental assessment in accordance with the CEAA required for…
- the implementation of a tree nursery?

Answer: To make a proper determination, we would need to know if the initiative includes the construction of a building and if irrigation structures are planned, in addition to their physical dimensions and other characteristics related to the presence of water bodies.

Is an environmental assessment in accordance with the CEAA required for…
- the construction of latrines distributed in different communities?

Answer: The construction of latrines may require the completion of an environmental assessment under the CEAA, depending on the circumstances. Such initiatives often involve the implementation of many latrines, distributed over a large territory. In such cases, rather than undertaking an environmental assessment for each individual construction, a **class environmental assessment** can be conducted for each eco-region, or region with similar environmental characteristics. Such an assessment presents the accumulated knowledge about the environmental effects of a given type of initiative, and provides insight into the guidelines that will be followed to avoid degradation and nuisances. These guidelines include criteria for site selection, and details on the technical, maintenance, and management aspects. The pertinence of such environmental assessments must be determined on a case-by-case basis.

Is an environmental assessment in accordance with the CEAA required for…
- the construction of a 2 m high dyke to retain water for agricultural purposes?

Answer: Yes, since there is a physical work as defined by the CEAA. Furthermore, this physical work would take place in or close to a water body.

Is an environmental assessment in accordance with the CEAA required for…
- assistance to an agricultural cooperative for the distribution of fertilizers?

Answer: If no physical works are involved, an environmental assessment in accordance with the CEAA would not be required. Nevertheless, the integration of environmental concerns is important and in line with *CIDA's Policy for Environmental Sustainability*. An environmental assessment of smaller scope would thus be required.

Is an environmental assessment in accordance with the CEAA required for…

- the creation of a microcredit fund?

Answer: Such initiatives are to be dealt with on a case-by-case basis. Usually, if CIDA's funding can be traced directly to the ground level, and if a loan goes toward a specific physical work as defined by the CEAA, then an environmental assessment in accordance with the CEAA would be required. However, if CIDA funds contribute to the microcredit fund, and it is not possible to track CIDA funds to a specific activity resulting from a loan during the time frame of the initiative, then an environmental assessment in accordance with the CEAA may not be required.