



Environmental Assessment

Note: OP 4.01 replaces the policy elements of IFC's Environmental Analysis and Review of International Finance Corporation Projects (Washington, D.C.: IFC, 1993). IFC's Procedure for Environmental and Social Review went into effect as of September 1, 1998. Instructions to staff on public consultation and disclosure are contained in IFC's Policy on Disclosure of Information (Washington, D.C.: IFC, 1997). Additional information related to this OP is provided in the Environmental Assessment Sourcebook (Washington, D.C.: World Bank, 1991) and subsequent updates available from the Environment Sector Board and in the Pollution Prevention and Abatement Handbook. Other IFC policies that relate to the environment include OP 4.04, Natural Habitats; OP 4.09, Pest Management; OP 4.10, Indigenous Peoples (forthcoming); OP 4.11, Safeguarding Cultural Property in IFC-Financed Projects (forthcoming); OP 4.12, Involuntary Resettlement (forthcoming); OP 4.36, Forestry; OP 4.37, Safety of Dams (forthcoming), and OP 7.50, Projects on International Waterways. Questions may be addressed to the Associate Director, IFC's Environment Division. Additional copies are available to IFC staff in the Information Resources Center, Room L-124. The policy is available to the public through IFC's World Wide Web site at: <http://www.ifc.org/enviro>.

1. IFC¹ requires environmental assessment (EA) of projects proposed for IFC financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.
2. EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence;² examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. IFC favors preventive measures over mitigatory or compensatory measures, whenever feasible.
3. EA takes into account the natural environment (air, water, and land); human health and safety; and social aspects (involuntary resettlement, indigenous peoples and cultural property);³ and transboundary and global environmental aspects⁴. EA considers natural and social aspects in an integrated way. It also takes into account the variations in project and country conditions; the findings of country environmental studies; national environmental action plans; the country's overall policy framework and national legislation; the project sponsor's capabilities related to the environment and social aspects, and obligations of the country, pertaining to project activities, under relevant international environmental treaties and agreements. IFC does not finance project activities that would contravene such country obligations, as identified during the EA. EA is initiated as early as possible in project

¹ The International Finance Corporation (IFC) is the World Bank Group entity with a mandate to invest in private sector projects in developing member countries. It lends directly to and makes equity investments in private companies without guarantees from governments, and attracts other sources of funds for these projects. IFC also provides advisory services and technical assistance to governments and businesses. This policy also covers projects funded under the Global Environment Facility (GEF). "EA" refers to the entire process set out in OP 4.01

² For definitions, see Annex A. The area of influence for any project is determined with the advice of environmental specialists and set out in the EA terms of reference.

³ See OP 4.12, *Involuntary Resettlement*, and OP 4.10, *Indigenous Peoples* (forthcoming); OD 4.20, *Indigenous Peoples*; and OP 4.11, *Safeguarding Cultural Property in IFC-Financed Projects* (forthcoming).

⁴ Global environmental issues include climate change, ozone-depleting substances, pollution of international waters, and adverse impacts on biodiversity.



processing and is integrated closely with the economic, financial, institutional, social, and technical analyses of a proposed project.

4. The project sponsor is responsible for carrying out the EA. For Category A projects⁵ the project sponsor retains independent EA experts not affiliated with the project to carry out the EA.⁶ For Category A projects that are highly risky or contentious or that involve serious and multidimensional environmental concerns, the project sponsor should normally also engage an advisory panel of independent, internationally recognized environmental specialists to advise on all aspects of the project relevant to the EA.⁷ The role of the advisory panel depends on the degree to which project preparation has progressed, and on the extent and quality of any EA work completed, at the time IFC begins to consider the project.

5. IFC advises the project sponsor on IFC's EA requirements. IFC reviews the findings and recommendations of the EA to determine whether they provide an adequate basis for processing the project for IFC financing. When the project sponsor has completed or partially completed EA work prior to IFC's involvement in a project, IFC reviews the EA to ensure its consistency with this policy. IFC may, if appropriate, require additional EA work, including public consultation and disclosure.

6. The *Pollution Prevention and Abatement Handbook* describes pollution prevention and abatement measures and emission levels that are normally acceptable to IFC. However, taking into account country legislation and local conditions, the EA may recommend alternative emission levels and approaches to pollution prevention and abatement for the project. The EA report must provide full and detailed justification for the levels and approaches chosen for the particular project or site.

EA Instruments

7. Depending on the project, a range of instruments can be used to satisfy IFC's EA requirement: environmental impact assessment (EIA), environmental audit, hazard or risk assessment, and environmental action plan (EAP).⁸ EA applies one or more of these instruments, or elements of them, as appropriate.

Environmental Screening

8. IFC undertakes environmental screening of each proposed operation to determine the appropriate extent and type of EA. IFC classifies the proposed project into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

- a) *Category A:* A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive,⁹ diverse, or unprecedented. These impacts may affect an area

⁵ For screening, see para. 8.

⁶ EA is closely integrated with the project's economic, financial, institutional, social, and technical analyses to ensure that (a) environmental considerations are given adequate weight in project selection, siting, and design decisions; and (b) EA does not delay project processing. However, the project sponsor ensures that when individuals or entities are engaged to carry out EA activities, any conflict of interest is avoided. For example, when an independent EA is required, it is not carried out by the consultants hired to prepare the engineering design.

⁷ The panel (which is different from the dam safety panel required under OP 4.37, *Safety of Dams*) advises the project sponsor specifically on the following aspects: (a) the terms of reference for the EA, (b) key issues and methods for preparing the EA, (c) recommendations and findings of the EA, (d) implementation of the EA's recommendations, and (e) development of environmental management capacity.

⁸ These terms are defined in Annex A. Annexes B and C discuss the content of EA reports and EAPs.



broader than the sites or facilities subject to physical works. EA for a Category A project examines the project's potential negative and positive environmental impacts, compares them with those of feasible alternatives (including, the “without project” situation), and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. For a Category A project, the project sponsor is responsible for preparing a report, normally an EIA that includes, as necessary, elements of the other instruments referred to in para 7.

- b) *Category B*: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigatory measures can be designed more readily than for Category A projects. The scope of EA for a Category B project may vary from project to project, but it is narrower than that of Category A EA. Like Category A EA, it examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. The findings and results of Category B EA are described in the Environmental Review Summary, which is prepared by IFC.¹⁰
- c) *Category C*: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.
- d) *Category FI*: A proposed project is classified as Category FI if it involves investment of IFC funds through a financial intermediary, in subprojects that may result in adverse environmental impacts. In addition, in some capital markets projects, IFC funds are not targeted to specific subprojects (e.g. equity in a financial institution such as a commercial bank), but the financial institution has operations which may have adverse environmental impacts (e.g. project finance). In such cases, IFC may also classify the project as Category FI.

EA for Special Project Types

Financial Intermediary Lending

9. For a financial intermediary (FI) operation targeting specific subprojects, IFC requires that each FI screen proposed subprojects and ensure that subproject sponsors carry out appropriate EA for each subproject. Before approving a subproject, the FI verifies (through its own staff, outside experts, or existing environmental institutions) that the subproject meets the environmental requirements of appropriate national and local authorities and is

⁹ A potential impact is considered “sensitive” if it may be irreversible (e.g., lead to loss of a major natural habitat) or raise issues covered by OP 4.10, *Indigenous Peoples (forthcoming)*; OP 4.04, *Natural Habitats*; OP 4.11, *Safeguarding Cultural Property* in IFC-Financed Projects (forthcoming); or OP 4.12, *Involuntary Resettlement*.

¹⁰ When the screening process determines, or national legislation requires, that any of the environmental issues identified warrant special attention, the findings and results of the Category B EA may be set out in a separate report. Depending on the type of project and the nature and magnitude of the impacts, this report may include, for example, a limited environmental impact assessment, an environmental mitigation or action plan, an environmental audit, or a hazard assessment. For Category B projects that are not in environmentally sensitive areas and that present well-defined and well-understood issues of narrow scope, IFC may accept alternative approaches for meeting EA requirements: for example, environmentally sound design criteria, siting criteria, or pollution standards for small-scale industrial plants or rural works; environmentally sound siting criteria, construction standards, or inspection procedures for housing projects; or environmentally sound operating procedures for road rehabilitation projects.



consistent with this OP and other applicable environmental policies of IFC.¹¹ When IFC funds are not targeted to specific subprojects (e.g. equity in a financial institution such as a commercial bank) but the financial institution has operations which may have adverse environmental impacts, IFC will require the FI to receive training on environmental management, if necessary. In addition, IFC requires that investments under the relevant operations comply with host country environmental, health and safety requirements; no further environmental requirements would normally be applied to these operations.

10. In appraising a proposed FI investment by IFC, IFC reviews the adequacy of the proposed FI's EA arrangements for subprojects, including the mechanisms and responsibilities for environmental screening and review of EA results. When necessary, IFC ensures that the project includes components to strengthen such EA arrangements. For FI operations expected to have Category A subprojects, during appraisal IFC examines the FI's institutional capacity for its subproject EA work and identifies, as necessary, measures to strengthen capacity. If IFC is not satisfied that adequate capacity exists for carrying out EA, all Category A subprojects and, as appropriate, Category B subprojects—including EA reports—are subject to prior review and approval by IFC.¹²

Institutional Capacity

11. When the project sponsor has inadequate environmental capacity to carry out key EA-related functions (such as review of EA, environmental monitoring, inspections, or management of mitigation measures) for a proposed project, IFC requires the project sponsor to strengthen internal staff capacity or retain qualified outside expertise.

Public Consultation

12. For all Category A projects and as appropriate for Category B projects during the EA process, the project sponsor consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and takes their views into account. The project sponsor initiates such consultations as early as possible. For Category A projects, the project sponsor consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized, and (b) once a draft EA report is prepared. In addition, the project sponsor consults with such groups throughout project implementation, as necessary to address EA related issues that affect them.¹³

13. In those cases where the Category A EA has been completed prior to IFC involvement in a project, IFC reviews the public consultation and disclosure carried out by the project sponsor during and after EA preparation. If necessary IFC and the project sponsor then agree on a supplemental public consultation and disclosure program to address any deficiencies identified by IFC. On completion of the supplemental program the project sponsor prepares a report detailing the results of the full public consultation and disclosure program. The Category A EA will only be made available to the World Bank's InfoShop once this report is complete.

Disclosure

¹¹ The requirements for FI operations are derived from the EA process, and are consistent with the provisions of para 6 of this OP. The EA process takes into account the type of finance being considered, the nature and scale of anticipated subprojects, and the environmental requirements of the jurisdiction in which subprojects will be located.

¹² The criteria for prior review of Category B subprojects, which are based on such factors as type or size of the subproject and the EA capacity of the financial intermediary, are set out in the legal agreements for the project.

¹³ For projects with major social components, consultations are also required by other IFC policies—for example OP 4.10, *Indigenous Peoples (forthcoming)*, and OP 4.12, *Involuntary Resettlement*.



14. For meaningful consultations between the project sponsor and project-affected groups and local NGOs on all Category A and as appropriate for Category B projects, the project sponsor provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.

15. For a Category A project, the project sponsor provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts; for consultation after the draft EA report is prepared, the project sponsor provides a summary of the EA's conclusions. In addition, for a Category A project, the project sponsor makes the draft EA report available at a public place accessible to project-affected groups and local NGOs. For FI operations, the FI ensures that EA reports for Category A subprojects are made available in a public place accessible to affected groups and local NGOs.

16. The Category B report (Environmental Review Summary) for a project is made available to project affected groups and local NGOs.

17. Once the project sponsor officially provides a Category A EA report to IFC, IFC distributes the summary (in English) to the members of IFC's Board of Directors. As required under its policy on disclosure, IFC also makes the Category A EA and Category B environmental information available through the World Bank InfoShop.¹⁴ If the project sponsor objects to IFC's releasing this environmental information through the World Bank InfoShop, IFC staff do not continue work on the project. In rare and compelling circumstances and for Category B projects only, an exception to the time deadline associated with this public disclosure requirement may be granted in writing by the Vice President, Investment Operations.

Implementation

18. During project implementation, the project sponsor reports on compliance with (a) measures agreed with IFC on the basis of the findings and results of the EA, including implementation of any EAP, as set out in the project documents; (b) the status of mitigatory measures; and (c) the findings of monitoring programs. IFC bases supervision of the project's environmental aspects on the findings and recommendations of the EA, including measures set out in the legal agreements, any EAP, and other project documents.

¹⁴ For a further discussion of IFC's disclosure procedures, see *IFC's Policy on Disclosure of Information*. Specific requirements for disclosure of resettlement plans and indigenous peoples development plans are set out in OP 4.12, *Involuntary Resettlement* (forthcoming), and OP 4.10, *Indigenous Peoples* (forthcoming).



Annex A—Definitions

1. *Environmental audit*: An instrument to determine the nature and extent of all environmental areas of concern at an existing facility. The audit identifies and justifies appropriate measures to mitigate the areas of concern, estimates the cost of the measures, and recommends a schedule for implementing them. For certain projects, the EA report may consist of an environmental audit alone; in other cases, the audit is part of the EA documentation.
2. *Environmental impact assessment (EIA)*: An instrument to identify and assess the potential environmental impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures.
3. *Environmental action plan: (EAP)* An instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental impacts, or to reduce them to acceptable levels; and (b) the actions needed to implement these measures. The EAP is an integral part of Category A EAs (irrespective of other instruments used). EAs for Category B projects may also result in an EAP.
4. *Hazard assessment*: An instrument for identifying, analyzing, and controlling hazards associated with the presence of dangerous materials and conditions at an installation. IFC requires a hazard assessment for projects involving certain inflammable, explosive, reactive, and toxic materials when they are present at a site in quantities above a specified threshold level. For certain projects, the EA report may consist of the hazard assessment alone; in other cases, the hazard assessment is part of the EA documentation.
5. *Project area of influence*: The area likely to be affected by the project, including all its ancillary aspects, such as power transmission corridors, pipelines, canals, tunnels, relocation and access roads, borrow and disposal areas, and construction camps, as well as unplanned developments induced by the project (e.g., spontaneous settlement, logging, or shifting agriculture along access roads). The area of influence may include, for example, (i) the watershed within which the project is located; (ii) any affected estuary and coastal zone; (iii) off-site areas required for resettlement or compensatory tracts; (iv) the airshed (e.g., where airborne pollution such as smoke or dust may enter or leave the area of influence); (v) migratory routes of humans, wildlife, or fish, particularly where they relate to public health, economic activities, or environmental conservation; and (vi) areas used for livelihood activities (hunting, fishing, grazing, gathering, agriculture, etc.) or religious or ceremonial purposes of a customary nature.
6. *Risk assessment*: An instrument for estimating the probability of harm occurring from the presence of dangerous conditions or materials at an installation. Risk represents the likelihood and significance of a potential hazard being realized; therefore, a hazard assessment often precedes a risk assessment, or the two are conducted as one exercise. Risk assessment is a flexible method of analysis; a systematic approach to organizing and analyzing information about potentially hazardous activities or about substances that might pose risks under specified conditions. IFC routinely requires risk assessment for projects involving handling, storage, or disposal of hazardous materials and waste; the construction of dams; or major construction works in locations vulnerable to seismic activity or other potentially damaging natural events. For certain projects, the EA report may consist of the risk assessment alone; in other cases, the risk assessment is part of the EA documentation.



Annex B—Content of an Environmental Assessment Report for a Category A Project

1. An environmental assessment (EA) report for a Category A project¹ focuses on the significant environmental issues of a project. The report's scope and level of detail should be commensurate with the project's potential impacts. The report submitted to IFC is prepared in English, French, or Spanish, and the executive summary in English.
2. The EA report should include the following items (not necessarily in the order shown):
 - a) *Executive summary.* Concisely discusses significant findings and recommended actions.
 - b) *Policy, legal, and administrative framework.* Discusses the policy, legal, and administrative framework within which the EA is carried out. Explains the environmental requirements of any cofinanciers. Identifies relevant international environmental agreements to which the country is a party.
 - c) *Project description.* Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any off-site investments that may be required (e.g., dedicated pipelines, access roads, power plants, water supply, housing, and raw material and product storage facilities). Indicates the need for any resettlement plan or indigenous peoples development plan² (see also subpara (h)(v) below). Normally includes a map showing the project site and the project's area of influence.
 - d) *Baseline data.* Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigatory measures. The section indicates the accuracy, reliability, and sources of the data.
 - e) *Environmental impacts.* Predicts and assesses the project's likely positive and negative impacts, in quantitative terms to the extent possible. Identifies mitigation measures and any residual negative impacts that cannot be mitigated. Explores opportunities for environmental enhancement. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention.
 - f) *Analysis of alternatives.*³ Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including, the “without project” situation—in terms of

¹ The EA report for a Category A project is normally an environmental impact assessment, with elements of other instruments included as appropriate. Any report for a Category A operation uses the components described in this annex. IFC's Environment Division can provide detailed guidance on the focus and components of the various EA instruments.

² See OP 4.12, *Involuntary Resettlement* and OP 4.10, *Indigenous Peoples* (forthcoming).

³ EIA is normally best suited to the analysis of alternatives within a given project concept (e.g., a geothermal power plant, or a project aimed at meeting local energy demand), including detailed site, technology, design, and operational alternatives. Where a project has



their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. For each of the alternatives, quantifies the environmental impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and justifies recommended emission levels and approaches to pollution prevention and abatement.

- g) *Environmental action plan (EAP)*. Covers mitigation measures, monitoring, and institutional strengthening; see outline in OP 4.01, Annex C.
- h) *Appendixes*
 - i) List of EA report preparers—individuals and organizations.
 - ii) References—written materials, both published and unpublished, used in study preparation.
 - iii) Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs.
 - iv) Tables presenting the relevant data referred to or summarized in the main text.
 - v) List of associated reports (e.g., resettlement plan or indigenous peoples development plan).

broad environmental implications (e.g. a large reservoir), these should be addressed through a careful and comprehensive analysis of the project's area of influence and the proper scoping of the EIA.



Annex C—Environmental Action Plan

1. A project's environmental action plan (EAP) consists of the set of mitigation, management, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures.¹ Action plans are essential elements of EA reports for Category A projects; for many Category B projects, the EA may result in an action plan only. To prepare an action plan, project sponsors and their EA design team (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.² More specifically, the EAP includes the following components.

Mitigation

2. The EAP identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the EAP

- a) identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement);
- b) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
- c) estimates any potential environmental impacts of these measures; and
- d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement or indigenous peoples) required for the project.

Monitoring

3. Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the project sponsor and IFC to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EAP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EAP. Specifically, the monitoring section of the EAP provides

- a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and

¹ The action plan is sometimes known as a “management plan.”

² For projects involving rehabilitation, upgrading, expansion, or privatization of existing facilities, remediation of existing environmental problems may be more important than mitigation and monitoring of expected impacts. For such projects, the action plan focuses on cost-effective measures to remediate and manage these problems.



- b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Capacity Development and Training

4. To support timely and effective implementation of environmental project components and mitigation measures, the EAP draws on the EA's assessment of the existence, role, and capability of environmental units on site.³ If necessary, the EAP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of EA recommendations. Specifically, the EAP provides a specific description of the project sponsor's arrangements—who is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen the project sponsor's environmental management capability, most EAPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

Implementation Schedule and Cost Estimates

5. For all three aspects (mitigation, monitoring, and capacity development), the EAP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP.

Integration of EAP with Project

6. The project sponsor's decision to proceed with a project, and IFC's decision to support it, are predicated in part on the expectation that the EAP will be executed effectively. Consequently, IFC expects the plan to be specific in its description of the individual mitigation, management and monitoring measures and its assignment of responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project so that the plan will receive funding and supervision along with the other components.

³ For projects having significant environmental implications, it is particularly important that the project sponsor have an in-house environmental unit with adequate budget and professional staffing strong in expertise relevant to the project.