

Environmental Assessment Sourcebook UPDATE



Environment Department
The World Bank



April 1993
Number 2

Environmental Screening

Environmental screening is intended to ensure that proposed projects are subject to the appropriate extent and type of environmental assessment (EA). This EA Sourcebook Update provides guidance to Bank staff on environmental screening, based on the Bank's EA policy and evolving EA experience. This Update replaces the screening section in chapter 1 of the Environmental Assessment Sourcebook (pp. 4-5).

Requirements for screening

The World Bank's EA process generally begins with screening at the time of project identification. At this stage, the project is classified into one of three categories prior to issuance of the Project Concept Document. The chosen category signals the appropriate level of EA required. Environmental screening also helps determine the choice of EA instruments, depending on the needs of the project.

Determining the level of EA

The Bank uses the following three categories to signal the appropriate level of EA for any given project:

- **Category A:** A full EA is needed in accordance with the specific requirements of the Bank's EA policy and procedure for Category A projects, including in areas such as public disclosure, public consultation, and the timing for submitting the EA report to the Bank—see Operational Directive(OD) 4.01, soon to be reissued as Operational Policy/Bank Procedure/Good Practice (OP/BP/GP) 4.01.
- **Category B:** EA is required, but its scope corresponds to the limited environmental impacts of the project (again, the Bank's EA policy and procedure provide specific guidance).
- **Category C:** No EA is required.

The selection of the category should be based on professional judgment and information available at the time of project identification. If the project is modified or new information becomes available, Bank EA policy permits the TM to reclassify a project with the concurrence of the RED. For example, a Category B project might become Category A if new information reveals that it may have diverse and

significant environmental impacts when they were originally thought to be limited to one aspect of the environment. Conversely, a Category A project might be reclassified as B if a component with significant impacts is dropped or altered.

The option to reclassify projects relieves some of the pressure to make the initial decision the correct and final one. However, reclassification is not free of cost. For example, if a Category B project is later changed to Category A, additional resources will be required for environmental studies, public consultation, and report preparation. The schedule for project preparation will almost certainly be adversely affected.

Selecting appropriate EA instruments

In parallel with determining the appropriate project classification, the screening process should also identify the types of EA instruments that may be suitable for the project. Box 1 lists different project categories and EA instruments that are often useful in conjunction with such projects. This list is illustrative and the final decision on the use of these instruments has to involve the borrower.

Opportunities for undertaking *strategic* forms of EA (sectoral or regional EA) should be considered early—if possible before the identification of concrete projects—in order to optimize the influence of the EA process on the selection and design of projects (*Updates* nos. 4 and 15 provide guidance on sectoral and regional EA).

Criteria for making the classification decision

Initially, it is useful to look at key words in OP 4.01 (forthcoming) to describe each screening category. Projects are

Box 1. Project categories and corresponding EA instruments

This list provides an overview of EA instruments that are typically relevant for different categories of projects. For any one project, the choice of instrument(s) should be tailored to the environmental issues at hand. For some situations, the use of just one instrument is appropriate, other times it makes most sense to combine two or more instruments (for example EIA and risk assessment) or to sequence them (for example, a sectoral EA followed by a number of EIAs for subprojects).

Investment projects	EIA, risk assessment
Sector adjustment loans	Sectoral EA
Sector investment and “time-slice” operations	Sectoral EA, EIA (for subprojects)
Urban development program/project	Regional EA, EIA (for subprojects)
Rural development program/project	Regional EA, EIA (for subprojects)
Riverbasin or watershed program/project	Regional EA, EIA (for subprojects)
Rehabilitation and maintenance projects	Environmental audit, hazard/risk assessment
Industrial expansion projects	EIA, environmental audit, hazard/risk assessment
Privatization projects	Environmental audit, hazard/risk assessment
Financial intermediary loans	EIA, environmental audit, hazard/risk assessment, checklists, screening and review criteria
Social investment funds	EIA, checklists, screening and review criteria

classified into Category A if they are “likely to have significant adverse impacts that are sensitive, diverse, or unprecedented, or that affect an area broader than the sites or facilities subject to physical works.” The impacts of Category B projects are “site-specific in nature and do not significantly affect human populations or alter environmentally important areas, including wetlands, native forests, grasslands, and other major natural habitats. Few if any of the impacts are irreversible, and in most cases mitigatory measures can be designed more readily than for Category A projects.” In order for a project to be classified into Category C, it must be considered likely to have no adverse impacts at all, or the impacts would be negligible. In practice, the significance of impacts, and the selection of screening category accordingly, depends on the *type* and *scale* of the project, the *location* and *sensitivity* of environmental issues, and the *nature* and *magnitude* of the potential impacts. These dimensions are discussed below.

Project type and scale

Boxes 2–4 provide illustrative lists of projects assigned to each of the three categories based upon prior Bank and international experience. These lists provide a good starting point and framework for the screening decision. However, because of other factors involved such as project siting, the nature of impacts, and the need for the EA process to be flexible enough to accommodate them, the lists should not be used as the sole basis for screening.

Category A. In general, certain types of projects such as those listed in box 2, are likely to have adverse impacts of a Category A nature. Category A includes projects which have one or more of the following attributes that make the potential impacts “significant”: direct pollutant discharges that are large enough to cause degradation of air, water or soil; large-scale physical disturbance of the site and/or surroundings; extraction, consumption, or conversion of

substantial amounts of forest and other natural resources; measurable modification of hydrologic cycle; hazardous materials in more than incidental quantities; and involuntary displacement of people and other significant social disturbances.

Category B. Projects in Category B often differ from A projects of the same type only in scale (see box 3). Large irrigation and drainage projects are usually Category A; however, small-scale projects of the same type may fall into Category B. Similarly, a 50-meter hydroelectric dam is clearly large in scale and will usually require Category A classification, while low-head power dams may be Category B. Construction of a 50-km expressway would also require Category A due to scale, while rural road rehabilitation will tend to raise only minor environmental issues (Category B).

Projects entailing *rehabilitation, maintenance* or *upgrading* rather than new construction will usually be in Category B. A project with any of these characteristics may have impacts, but they are less likely to be “significant”. However, each case must be judged on its own merits. Many rehabilitation, maintenance and upgrading projects—as well as privatization projects—may require attention to existing environmental problems at the site rather than potential new impacts. Therefore, an environmental audit may be more useful than an impact assessment in fulfilling the EA needs for such projects (see *Update* no. 11: *Environmental Auditing*).

Category C. Typical Category C projects are listed in box 4. However, before classifying a project in this category it is important to consider potential issues, some of which may not immediately spring to mind. For example, disposal of medical wastes may be an issue in many health projects. Likewise, while most technical assistance (TA) projects should fall into Category C since

Box 2. Category A projects

The projects or components included in this list are likely to have adverse impacts that normally warrant classification in Category A.

- Aquaculture and mariculture (large-scale)
- Dams and reservoirs
- Forestry production projects
- Hazardous waste management and disposal
- Industrial plants (large-scale) and industrial estates, including major expansion, rehabilitation, or modification
- Irrigation, drainage, and flood control (large-scale)
- Land clearance and leveling
- Manufacture, transportation, and use of pesticides or other hazardous and/or toxic materials
- Mineral development (including oil and gas)
- New construction or major upgrading of highways or rural roads
- Port and harbor development
- Reclamation and new land development
- Resettlement
- River basin development
- Thermal power and hydropower development or expansion
- Water supply and wastewater collection, treatment and disposal projects (large-scale)

they involve no physical works, certain TA operations are designed to pave the way for major investments or privatization (often in a particular sector). In such cases, it is appropriate to undertake a limited review of the environmental institutional and regulatory framework for the sector and recommend improvements (as needed). Category B is normally the correct classification for such projects.

Project location

The selection of a screening category often depends substantially on the project setting, while the “significance” of potential impacts is partly a function of the natural and sociocultural surroundings. There are a number of locations which should cause the TM to seriously consider an “A” classification:

- In or near sensitive and valuable ecosystems — wetlands, wildlands, coral reefs and habitat of endangered species;
- in or near areas with archaeological and/or historical sites or existing cultural and social institutions;
- in densely populated areas, where resettlement may be required or potential pollution impacts and other disturbances may significantly affect communities;
- in regions subject to heavy development activities or where there are conflicts in natural resource allocation;

Box 3. Category B projects

The following projects and components may have environmental impacts for which more limited EA is appropriate.

- Agro-industries (small-scale)
- Electrical transmission
- Energy efficiency and energy conservation
- Irrigation and drainage (small-scale)
- Protected areas and biodiversity conservation
- Rehabilitation or maintenance of highways or rural roads
- Rehabilitation or modification of existing industrial facilities (small-scale)
- Renewable energy (other than hydroelectric dams)
- Rural electrification
- Rural water supply and sanitation
- Tourism
- Watershed projects (management or rehabilitation)

- along watercourses, in aquifer recharge areas or in reservoir catchments used for potable water supply; and
- on lands or waters containing valuable resources (such as fisheries, minerals, medicinal plants, prime agricultural soils).

Experience to date shows that precise identification of the project’s geographical setting at the screening stage greatly enhances the quality of the screening decision and helps focus the EA on the important environmental issues. A map of the project area that includes key environmental features (including cultural heritage sites) is invaluable for this purpose. Information on the project setting may be available to the TM from the RED, from colleagues in country departments, or in-country environmental profiles or Bank reports on other projects in the vicinity. Local institutions and NGOs are also valuable sources. In the absence of any such information, the TM should consider sending a reconnaissance mission to provide the basis for proper screening. Often a product of this mission is a draft of the Terms of Reference (TOR) for the EA.

Sensitivity of issues

Environmental issues that are sensitive within the Bank or the borrowing country require special attention during the EA process. The project may involve activities or environmental features that are always of particular concern to the Bank as well as to many borrowers. These issues may include (but are not limited to) disturbance of tropical forests, conversion of wetlands, potential adverse effects on protected areas or sites, encroachment on lands or rights of indigenous peoples or other vulnerable minorities, involuntary resettlement, impacts on international waterways and other transboundary issues, and toxic waste disposal. The best way to ensure proper treatment of such issues is to classify the project as Category A, so

Box 4. Category C projects

These projects are likely to have negligible or no environmental impacts. EA is normally not required.

- Education
- Family planning
- Health
- Institution development
- Most human resources projects
- Nutrition

that the level of effort will be adequate in terms of analytical expertise, decision-making, interagency coordination, and public involvement.

Nature of impacts

It is difficult to describe the nature of impacts without having some overlap with the concepts of sensitivity and project type. The TM should take into consideration the following examples of impacts that warrant Category A attention:

- Irreversible destruction or degradation of natural habitat and loss of biodiversity or environmental services provided by a natural system;
- risk to human health or safety (for example, from generation, storage or disposal of hazardous wastes, or violation of ambient air quality standards); and
- absence of effective mitigatory or compensatory measures.

Magnitude of impacts

There are a number of ways in which magnitude can be measured, such as the *absolute amount* of a resource or ecosystem affected, the *amount affected relative to the existing stock* of the resource or ecosystem, the *intensity* of the impact and its *timing* and *duration*. In addition, the *probability of occurrence* for a specific impact and the *cumulative impact* of the proposed action and other planned or ongoing actions may need to be considered.

For example, the resettlement of 5,000 families is a large impact, in absolute terms. Conversion of 50 hectares of wetland, however, differs markedly in significance depending on its size relative to the total area of wetlands in the country or region. An average decrease in dissolved oxygen concentration of 0.05 mg/l in a receiving water is unlikely to have serious biological or chemical implica-

tions, while a decrease of 3.0 mg/l will in many circumstances. The effect of either decrease on the aquatic ecosystem will be different depending on its duration and frequency of occurrence—continuous or permanent, seasonal, intermittent or accidental. Where it is possible to assign probabilities to potential impacts, which often cannot be done without detailed analysis, the risk of occurrence becomes an aspect of magnitude.

One of the requirements of a full EA is that other current and proposed development activities within the project area and more spontaneous activities spurred by a project (such as migration of people into an area opened up by a road project) must be taken into account. Such *cumulative* or *induced impact* may sometimes be the primary determinant of the appropriate level of EA.

Screening of operations with multiple subprojects

Financial intermediary, sector investment, and social investment fund operations present unique problems during screening because the details of the subloans or subprojects are usually not known at the time of project identification. One of the TM's responsibilities is to see that the loan includes a mechanism for conducting environmental screening of subprojects and, as appropriate, carrying out and reviewing EAs. However, the entire loan must also be assigned to a category for the purpose of preparation and appraisal. If it becomes evident that one or more subprojects will require full EA, the entire loan should be classified as Category A (see Chapter 6 of Volume I, *Environmental Assessment Sourcebook*). When screening a sector investment loan, the need and opportunity for undertaking a sectoral EA should be considered (see *Update* no. 4: *Sectoral Environmental Assessment*). Future Updates will discuss EA for financial intermediary lending and social investment funds in more detail.

Outputs of screening

The screening results are recorded and explained in the Project Concept Document and the Environmental Data Sheet. The Monthly Operational Summary also records the screening decision. The Bank reviews the results with the borrower, especially with regard to the type of EA instruments required, the general scope of the EA, public disclosure and consultation requirements, schedule, and implementation arrangements. As soon as possible after screening, the borrower should prepare the Terms of Reference (TORs) for any EA required. The Bank assists as necessary in preparing the TORs and always reviews their contents.

This *Update* was prepared by Thomas E. Walton and Olav Kjørven. The *EA Sourcebook Updates* provide up-to-date guidance for conducting EAs of proposed projects and should be used as a supplement to the *Environmental Assessment Sourcebook*. The Bank is thankful to the Government of Norway for financing the production of the *Updates*. Please address comments and inquiries to Olav Kjørven and Aidan Davy, Managing Editors, EA Sourcebook Update, ENVLW, The World Bank, 1818 H St. NW, Washington, D.C., 20433, Room No. S-5139, (202) 473-1297. E-mail: eaupdates@worldbank.org.