



Environmental impact

GUIDELINES

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What are Environmental Assessments?

ENVIRONMENTAL ASSESSMENTS ANALYZE and evaluate potential environmental impacts of proposed projects, programmes and/or policies. They facilitate the improved planning, design and implementation of projects by providing for the systematic collection, analysis and transfer of relevant environmental information to decision-makers.

Introduction

THE PRIMARY ROLE of the Investment Centre (IC), a Division of FAO's Technical Cooperation Department, is to assist countries to identify and prepare agricultural and related investment projects for both external and domestic financing, thereby contributing to the quality and volume of investment in agriculture, forestry, fisheries and rural development. In this capacity, the IC has cooperative agreements with most international financial institutions (IFIs), including the regional development banks for Africa (African Development Bank), America (Inter-American Development Bank), Asia (Asian Development Bank), Europe (European Bank for Reconstruction and Development), the Near East (Islamic Development Bank), Caribbean (Caribbean Development Bank), and other United Nations organizations including the International Fund for Agricultural Development (IFAD), the World Bank (IBRD) and the World Food Programme (WFP).

GUIDELINE OBJECTIVES

This guideline is the first in a series of guidelines being developed by the IC aimed at addressing critical environmental issues associated with agricultural project formu-

lation. The specific objectives of the series are to: provide guidance in the environmental assessment (EA) of agricultural and sector-related projects; and serve as a vehicle to disseminate examples of Investment Centre EA procedures and tools to staff, IFIs and member government agencies.

The intended users of these EA guidelines are IC team leaders, technical specialists and counterparts responsible for formulating projects particularly in the following sectors: agriculture, natural resources

management (NRM), rural development and poverty alleviation, forestry, fisheries and financial intermediary lending as well as sector programmes. At the outset, these guidelines are meant to be general in nature. They will be

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Box 1

SELECTED EA DEFINITIONS

SINCE THE EARLY 1970s, definitions and terminology used in EA have continued to evolve. The following definitions broadly reflect current usage among IFIs, development organizations and borrowing countries.

CUMULATIVE EFFECTS ASSESSMENT (CEA)

An evolving methodology that attempts to assess the combined effects associated with several diverse interventions in a geographically-defined area and/or over time.

DUE DILIGENCE

A generic legal concept that demonstrates all reasonable steps have been taken to prevent an unexpected occurrence of an adverse event (e.g. environmental hazard). To achieve this objective, intermediary lending agencies need to adopt relevant environmental review procedures.

ENVIRONMENTAL ASSESSMENT (EA)

The general process of assessing environmental impacts associated with human development activities which may include studies ranging from comprehensive (EIA) to more limited reviews (such as audits and initial environmental examinations).

ENVIRONMENTAL AUDIT

A tool used to identify environmental concerns that may represent a potential future liability; audits are associated particularly with transfers of property.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

A tool used to identify and assess the potential impacts of a proposed project (or activity), evaluate alternatives, and formulate appropriate mitigation, management and monitoring measures (generally in the form of an environmental management plan).

ENVIRONMENTAL (PERFORMANCE) MONITORING

Planned activities required and implemented by the borrowing country to measure and evaluate environmental changes caused by a project, including health and socio-economic effects. Working with both pre-project and post-project information, deviations beyond predetermined limits can trigger corrective action.

Monitoring of complex projects may be facilitated by providing support documents such as handbooks on how the on-site mitigation and monitoring is to be done.

ENVIRONMENTAL SCOPING

The preliminary phase of environmental assessment which identifies significant issues, frequently involving public participation in the process.

ENVIRONMENTAL SCREENING

The first phase of the assessment process where an initial ranking is assigned to a project indicating an estimated level of anticipated impact and a corresponding level of required EA "treatment".

MITIGATION MEASURE

An activity aimed at reducing the severity of, and avoiding or controlling, adverse environmental or social impacts of a proposal through design alternatives, scheduling and other actions.

REGIONAL EA (REA)

A tool that examines issues and impacts associated with a particular strategy, policy, plan, programme, or a series of projects for a particular region.

SECTORAL EA (ScEA)

A tool used to assess environmental issues and impacts associated with a sector-specific strategy, policy, programme, or series of projects, providing a basis to identify the necessary measures to strengthen environmental management in the sector.

STRATEGIC EA (SEA)

A tool that promotes the incorporation of environmental considerations "upstream" from a project-specific EA into policy and programme formulation (e.g. structural adjustment and policy-based lending).

followed by more specific guidelines, which will be tailored to meet the changing needs of the end-users. The IC is not a financing agency, and for this reason the guidelines are meant to be complementary to both requirements of the borrowing country and the concerned financing agencies.

Overview of Environmental Assessment

Environmental assessment is a process which was designed to ensure that decision-makers are made aware of the potential environmental consequences of their actions, with the intention of improving the “quality” of development decisions. The methodology was originally developed to guide the United States federal government decision-making process, and many of the concepts and procedures which are in use today were originally established in the 1969 US National Environmental Policy Act, and associated regulations.

With the passage of time EA policies and methodologies have evolved. The EA process and the associated technical procedures were originally developed to deal with decisions about individual investment projects. Typically, such developments tended to be circumscribed both spatially and temporally and many of the accompanying analytical techniques were developed for that application. Subsequently, the process has been extended to cover a broader range of activities which are less well defined (e.g. rural development projects) and about which it is more difficult to make accurate and meaningful quantitative assessments. However, even in the latter case, the general principles of enquiry characteristic of the EA process can be useful in identifying potential envi-

ronmental risks and data gaps and for the development of monitoring procedures required to identify project impacts and the effectiveness of mitigation measures (Box 1).

Today, EA is widely considered to be a simple and cost-effective process which has been adopted by most governments and international finance institutions although it has been frequently adapted to suit local legal, regulatory and cultural environments. Despite the widening scope of application of EA procedures, and the subsequent formulation of a myriad of EA policies and procedures by countries and IFIs alike, there is a broad consistency in the features adopted. Some of the more important features are:

Improved Decision-making. The basic goal of EA is to improve the decision-making process primarily through the identification and inclusion of environmental considerations into project planning, design and implementation (Box 2).

Early Application and Analysis of Alternatives.

EA is a planning tool and is most effective when applied at the early stages of the project formulation process when there is still sufficient flexibility to consider relevant alternatives and changes in project design. EA should be an integral part of the project design process rather than a

separate exercise. As a basic principle, EAs should include an analysis of alternatives as an input to identifying the preferred project option.

Inter-disciplinary Approach.

The range and nature of potential impacts associated with project implementation require an inter-disciplinary treatment in the analysis of data. However, for smaller projects, in practice, budgetary, personnel and scheduling

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Box 2

ABERDARES NATURAL RESOURCES DEVELOPMENT PROJECT, KENYA: EXAMPLE OF AN EA CONTRIBUTING TO IMPROVEMENTS IN PROJECT DESIGN

The objective of this six-year project was to conserve and develop the natural resources of the Aberdares region based on an integrated management approach involving local communities. It consisted of three components with a total cost of \$35.5 million. Project preparation by the IC occurred in 1995 and appraisal took place in 1997 in parallel with preparation of the EA. A multi-disciplinary team led by Centre staff conducted the EA. The major project investment as originally proposed consisted of the construction of some 360-km of fencing that would encircle

the entire Aberdares park perimeter with the aim of reducing human-wildlife conflicts. The team examined three project scenarios: without project, with project and modified project. One of the key conclusions of the team was that as proposed the fence was not viable; a conclusion based on both economic and environmental considerations. Rather, replacing the fence with a mixed barrier and non-barrier system (e.g. game moats and topographic barriers) would improve the project. In addition, the mission recommended the completion of a comprehensive management plan

prior to initiating any investment activities. The recommendations were accepted by the African Development Bank and the Government of Kenya and contributed to significant improvements in project design.

One lesson from this is that EAs should be conducted at the earliest stages in project identification rather than as late as appraisal.

IC Environmental Report Series 1. FAO, 1999. Kenya: Aberdares Natural Resources Development Project Environmental Impact Assessment Report, FAO IC/AfDB Report No. 97/082 ADB-KEN.

constraints often contribute to the use of a single EA generalist who may have cross-disciplinary training (e.g. geographer, ecologist, planner). The use of teams tends to be limited to large-scale, high impact projects with potentially complex and diverse impacts.

Comprehensiveness. EA procedures are applied to all projects, albeit at differing levels of treatment, dependent on the specific nature of the activity and the potential significance of the environmental effects. Environmental assessment includes analysis of the potential environmental impacts of the following types: physical, biological, socio-economic and cultural heritage.

Resource Effective. The EA process is sequential or iterative in nature, proceeding from the general to the specific, the objective of which is to allocate scarce resources as efficiently as possible to the assessment of significant issues and avoid unnecessary information gathering and analysis.

Flexibility. EA is a flexible process in which the scope, depth and analytical techniques to be applied will vary by project and by the nature and magnitude of the expected impacts. The key is to maximize the influence of EA on improving project design consistent with the significance of potential environmental impacts.

Public Participation and Public Access. Public opinion is an important factor for decision-makers and formal participation of the public in the decision-making process is increasingly a requirement of governments and IFIs, alike. For many types of development supported by IFIs in rural areas (e.g. agricultural and area development projects), the most practical and meaningful way of engaging the public is through participatory processes that are increasingly being undertaken as routine parts of broader project identification and design. An important feature of public participation is access by concerned parties to environmental assessment report(s). This is a requirement of the IFIs and of many governments.

Borrower's Responsibility. The responsibility for completing the EA is that of the borrower and not the IFI. In practice, where the borrower does not have the technical capacity and/or the financial resources, the IFI has supported the process, typically through the use of trust funds or other sources of external financing. Costs related to EA during project implementation (e.g. monitoring) typically are included in the loan amount.

EA and the Project Cycle

In this section the steps of environmental review are described, beginning with the “upstream” application of EA and related tools in the planning process, and their application to sector assessment, project preparation, implementation and project evaluation.

SECTOR ASSESSMENT

To facilitate the identification of investment priorities in client countries, most IFIs support the preparation of **country assistance strategies** based on detailed analysis and participative processes. For agriculture, such strategies characterize the sector and identify the constraints, needs and priorities for which investment is justified. Dependent on the IFI, these strategies may also include **environmental sector assessments**, although they may be limited in scope. At the broader sector level, environmental issues may also be treated through “stand-alone” **national environmental strategies** (e.g. national environmental action plans, environmental profiles, and/or national sustainable development and conservation strategies).

PROJECT IDENTIFICATION

Subsequent to sector work, the genesis of many projects begins with a **proposal** or project concept document prepared by a sponsoring ministry, often with outside technical assistance. It is important that the environmental consequences, both positive and negative, of a project are recognized early in the project identification process,

Box 3

ILLUSTRATIVE RANKING OF AGRICULTURE, RURAL DEVELOPMENT AND NRM PROJECTS*

HIGH IMPACT:

- Commercial fishery development
- Aquaculture/mariculture (large-scale)
- Commercial logging (large-scale)
- Irrigation and drainage (large-scale)
- Reclamation and new land development, including land levelling for agriculture
- Resettlement
- River basin development
- Water impoundments (large-scale)

MODERATE IMPACT:

- Range management
- Agro-industries
- Irrigation and drainage (small-scale rehabilitation and new schemes)
- Land and soil management
- Protected areas and biodiversity conservation
- Reforestation/afforestation
- Rural water supply and sanitation
- Small-scale fisheries
- Small-scale aquaculture and mariculture
- Watershed management (or rehabilitation)

LOW IMPACT:**

- Agricultural forestry research and extension
- Institutional development
- Health and education programmes
- Environmental programmes

* Due to differences in IFI classification terminology used for project screening, for the purpose of these guidelines, categorizing relative impact has been distinguished by High (type A or I impacts), Moderate (type B or II impacts) or Low (type C or III impacts).

** If a project in this category is located in or close to an environmentally sensitive area, some IFIs require that the activity should be re-classified to the next higher impact category.

Box 4

SELECTED EA TOOLS TO FACILITATE IDENTIFICATION AND/OR EVALUATION OF IMPACTS

Analogs

Application of information from existing, similar-type projects to the one currently being assessed (e.g. monitoring information related to the previous project can serve as an analogy to the anticipated impacts of the proposed project).

Environmental Cost-benefit Analysis

Economic evaluation of environmental resources and related impacts associated with development activities.

Expert Opinion (Professional Knowledge)

Employed in a number of techniques to facilitate information development (e.g. Delphi studies, use of adaptive EA, model development).

Literature Reviews

Review of the assembled literature on similar projects and associated impacts as the activity under review. Useful for identifying potential impacts and mitigation options.

Map Overlays/GIS

Use of maps and Geographic Information System technology to display different “layers” of environmental information over a basemap.

Checklists

One of the most common tools taking many different forms, but typically including activity/intervention, impact issues and follow-up questions to refer to for guidance.

Interaction (or Impact) Matrices

Matrix arrays depicting predicted impacts by intervention. These can range from simple to multi-dimensional in complexity.

Network Diagrammes

Depictions of connections or relationships between project actions and associated impacts. Particularly useful to show primary, secondary and tertiary impacts.

Monitoring Baseline

Measurements used to establish environmental conditions prior to project initiation and to interpret significance of anticipated changes from proposed project.

Adapted from Canter, L.W., 1998. "Methods for Effective Environmental Information Assessment (EIA) Practice," in *Environmental Methods Review: Retooling Impact Assessment for the New Century*, A.L. Porter and J. Fittipaldi (Eds.), (AEPI, Atlanta: 1998).

as changes become increasingly difficult and costly to accommodate over time. The **analysis of alternatives** is a key element of EA during this phase and systematic comparison of alternatives is called for by some governments and lending institutions. Emphasis is on possible investment design, sites, technology and operational alternatives, in terms of their environmental impact. However the analysis of alternatives is often inadequately addressed. Reasons include the timing of key decisions in relation to EA and the lack of methodological guidance.

General environmental objectives should be included amongst the project identification criteria that are agreed with borrowers during periodic lending pipeline discussions. During **project identification** (or early **project preparation**) the potential investment activity is **screened** and an initial ranking is assigned indicating an estimated level of anticipated impact and a corresponding level of EA “effort” likely to be required. This is typically based on the assigning of one of three categories dependent on expected seriousness of impact (see Box 3). Criteria that are commonly used in ranking are: “probability of occurrence of potentially significant adverse impacts”, “magnitude of impact”, “duration” and “reversibility”. Significantly, a recent IFI review of its portfolio emphasized the need to shift away from the practice of using past projects as a basis to assign EA categories towards a system that relies more on field-based information.

Following this stage, or in some cases as part of the same stage, **scoping** occurs whereby environmental issues are identified, and just as importantly, non-issues are ruled out, thereby providing the basis for focusing follow-up actions and resources. **Public participation** is an important element of the scoping process. The results of the screening and scoping stages are typically presented in a report which may be designated as initial environmental examination, environmental data sheet, etc., depending on the IFI.

PROJECT PREPARATION

Dependent on the findings of the screening and scoping phases, **project preparation** is the stage of the project

cycle in which the **assessment** part of EA is to be completed, typically through the intervention of one or more specialists. In complex cases, assessment may require more **detailed studies** and large, more diverse teams of specialists.

Subsequent to the assessment process, the findings are **evaluated** in the context of project design. This is the “heart” of the EA process in which impacts are evaluated to gauge their significance. Criteria used in the evaluation process are similar to those employed during the screen-

Box 5

ILLUSTRATIVE OUTLINE FOR ENVIRONMENTAL ASSESSMENT REPORTS

EXECUTIVE SUMMARY

Summary of the findings of the EA.
Conclusions.
Issues to be resolved.

PROJECT DESCRIPTION AND ALTERNATIVES

Description of the project including specifics on: type of project; need for project; location (use maps/layout); size or magnitude of operation (including off-site investments); and (proposed) schedule for preparation, appraisal and implementation. Description of alternative projects considered, including the no action alternative, and an analysis of environmental consequences of alternatives in a comparative form.

POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Description of institutional context in which the EA is prepared. EIA requirements of both the financing agency and borrower should be presented in this section.

ENVIRONMENTAL CONTEXT

Description of the study area and relevant physical and biological resources, as well as human and economic development conditions and socio-economic values before project implementation. Emphasis would be given to environmentally sensitive areas of special scientific, socio-economic or cultural value.

ENVIRONMENTAL IMPACTS

Identification and assessment of the expected project-related impacts (presented in quantified terms to the extent possible), including possible cumulative effects. Data availability and gaps, as well as uncertainties associated with predictions should be identified and estimated.

MITIGATION MEASURES

For each significant adverse environmental impact, the feasible and cost-effective measures that may reduce it to acceptable levels should be identified. For mitigation measures to have meaning, a plan and a framework for including these measures in the proposed project must be developed and costed (i.e. environmental management plan).

INSTITUTIONAL RESPONSIBILITIES

Identification of institutional responsibilities for addressing environmental issues and assessment of institutional capability, followed by a proposal for strengthening capacity to ensure environmental compliance, monitor impact and perform EA for sub-projects, where needed.

ENVIRONMENTAL MONITORING PLAN

Description of the monitoring programmes (including information on indicators, institutional responsibilities, necessary inputs and costs).

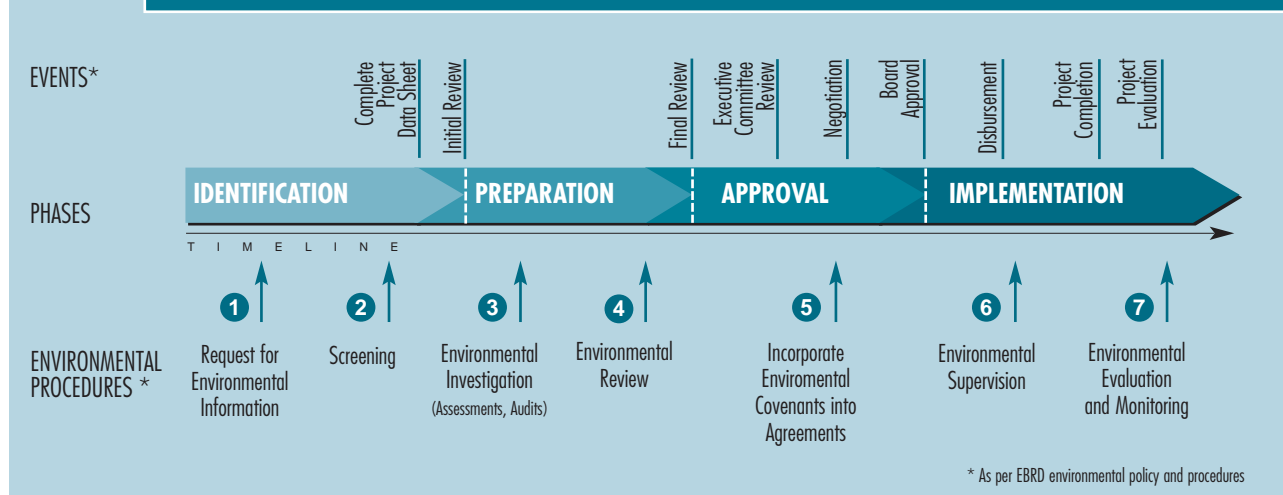
APPENDICES

List of Preparers: Name and qualifications of persons (institutions) responsible for preparing the EA. Reference Material Used in Support of EA: (e.g. citations, base maps, matrices). Public Involvement: Record of consultations conducted during EA process to obtain views of affected people.

For High and Moderate impact projects, the findings of the environmental review broadly follow the same report format, with a more comprehensive coverage in the case of High Impact projects. For more detail, the reader is referred to the relevant guidelines of the country and the financing agency.

Box 6

ENVIRONMENTAL PROCEDURES AND PROJECT TIMELINE OF AN INTERNATIONAL FINANCIAL INSTITUTION



ing process, but applied in a context of more detailed knowledge of the project and the area of potential impact. It is also during this process that one or more analytical tools may be applied to facilitate evaluation (see Box 4).

Based on the results of the evaluation, a series of **measures** may be formulated to address potential adverse impacts.

EA is a planning tool and is most effective when applied at the early stages of project formulation when there is still sufficient flexibility to consider relevant alternatives and changes in project design.

These could be **preventive** (the preferred option), **mitigatory**, and/or **compensatory**. This information is subsequently presented in an EA report (see Box 5). Most IFIs require that the EA report or a summary of it

be made available to the general public, in a language understandable to the majority, particularly to those people in the potentially affected area.

PROJECT IMPLEMENTATION

Monitoring is the process of assessing the effectiveness of the mitigation measures designed to address adverse environmental impacts and providing a basis for in-course modifications to project implementation arrangements in response to any adverse effects which may be detected. As a requirement of borrowers and lenders, it is a critical aspect of EA because it makes the assessment process continuous and is the primary tool used to identify unintended impacts, leading to the modifications necessary to correct them. It is necessary to identify the required investment for this activity as well as any recurrent costs, and to specify the parties responsible for the implementation of the mitigation plan.

PROJECT COMPLETION

The project completion phase provides the opportunity to conduct an **ex-post assessment**. The objective of the assessment is to compare environmental **baseline conditions** (pre-project situation) with those at the completion of the project, thereby providing the basis to evaluate the effectiveness of the mitigation measures.

A typical project timeline illustrating where EA interventions occur in the evolution of a project is presented in Box 6.

Special Cases

FINANCIAL INTERMEDIARY LENDING

Lending operations, which support activities whose specifics are not known at the time of project preparation, pose a special challenge to the EA specialist. Typical of these types of projects are those that “onward lend” funds through intermediate banks for certain, pre-determined types of activities. While the general categories and type of activities to be financed may be identified during project preparation, they are often generic and the exact number, nature, magnitude and site specifics of these activities are not known at the time of project appraisal. One common approach to address the environmental implications of these projects is to use illustrative “activity models”, similar to those used for costing purposes, and complete a “virtual” EA. This is complemented by the specification of procedures to be followed in screening sub-project proposals, and may also often include measures to strengthen the institution responsible for implementing them (see Box 7).

CUMULATIVE IMPACTS

The combined environmental effects associated with

one or more projects in a predefined common or shared area and time are referred to as cumulative impacts. These may be associated with one project (i.e. successive stages of a large irrigation project) or originate from several different projects, which may be prepared and implemented sequentially over time. In order to manage the impacts associated with this pattern of incremental development or the implementation of a large number of indirectly related projects planned for a contiguous area, the potential additive adverse effects need to be accounted for and avoided.

A recent IFI review of its portfolio emphasized the need to shift away from the practice of using past projects as a basis to assign EA categories towards a system that relies more on field-based information.

Box 7

RURAL DEVELOPMENT IN MARGINAL AREAS PROGRAMME, MEXICO: EXAMPLE OF AN EA FOR AN INTERMEDIARY LENDING OPERATION

The objective of this programme was to alleviate poverty among rural indigenous people who live in six marginal agricultural areas in the State of Oaxaca and the Huasteca region. Of the programme’s four components, two consisted of the establishment of funds to support individual and community investments, respectively. Several illustrative activities which had been used for costing purposes were reviewed by the Investment Centre. Potential negative impacts

associated with likely activities included deforestation, accelerated use of inputs associated with intensive cropping, soil erosion, loss of soil fertility and degradation of habitat. Proposed mitigation measures consisted of establishing procedures for sub-project screening, evaluation, approval and monitoring. These were subsequently integrated into the evaluation procedures to be applied to proposals for activities to be financed by the funds. Certain specified activities were

excluded from consideration for funding largely on environmental grounds (e.g. creation of new rural roads). Intensive training and capacity building in sustainable land management and environmental protection were also supported under the project.

Mexico: Sustainable Development Project in Marginal Rurals Areas. Environmental Analysis Working Paper, FAO IC. Report No. 96/088 CP-MEX.

Box 8

**IRRIGATION REHABILITATION, KYRGYZSTAN:
AN EXAMPLE OF A SECTORAL ASSESSMENT**

Because of the vital importance of irrigation for Kyrgyzstan’s economy and the deterioration of existing systems, the World Bank financed a project as part of a national emergency programme for irrigation and drainage rehabilitation. This included support for rehabilitation/ completion of irrigation dams, sections of primary and secondary canals, maintenance contracts for project schemes and capacity building. FAO’s Investment Centre assisted in the preparation and supervision of this project and the formulation of a second complementary on-farm irrigation project. A sectoral EA (ScEA) approach was

adopted as the programme affected the agricultural production of a wide area; and there were major environmental problems associated with the sector that warranted policy and regulatory measures as well as organizational improvements.

The ScEA analyzed the environmental policy, legal and regulatory framework affecting the water sector. The comparison of the environmental situation with and without the projects/ programme focused on issues and effects, both positive and negative, that are typical for the sector as a whole instead of the specific project

site impacts in a “normal” project EA. The recommendations covered preparation of an integrated water management action plan identifying all water uses and users and their mutual interactions; policy reform; institutional strengthening; monitoring; and training and capacity building.

The Kyrgyz Republic: Irrigation Rehabilitation Project Sector Environmental Assessment, FAO IC Report No. 97/078 CP-KYR.

SECTORAL AND REGIONAL IMPACTS

Changes in sector policies can also have an affect on the environment. **Sectoral EAs** (ScEA) are tools that assess environmental impacts associated with a sector-specific strategy, policy, programme, or series of projects within a single sector. It is characteristic of ScEAs to recommend broad measures intended to strengthen environmental management in the sector (see Box 8). Similar to the sectoral EA, **regional EAs** are instruments that examine issues and impacts associated with a particular strategy, policy, plan, programme, or a series of projects which are implemented in a particular region (for example: an urban area, coastal zone or watershed). The application of either, however does not necessarily eliminate the need for project-specific EAs.

MULTI-SECTORAL IMPACTS

In recognition of the restrictions implied by project-specific EAs, which in many cases are considered to be reactive in nature, **strategic environmental assessment** (SEA) has evolved as a tool which promotes the incorpo-

ration of environmental considerations into a broader policy context in an attempt to exert a greater influence on the decision-making process. It has the advantage of taking the EA process “upstream” from the project-specific EA and can be used for policy and programme formulation (e.g. structural adjustment and policy-based lending).

Future Challenges

Despite the considerable progress that EA as a tool has achieved in promoting increased efficiency in project design, there remain a number of aspects which continue to limit its effectiveness. These include:

LIMITED EA CAPACITY

Priority must be given to the development of increased institutional and human capacity for EA preparation and implementation within national and local level implementing organizations.

SCREENING

Estimating the degree of project impact, particularly at the initial stages of project identification through screening procedures, is largely a subjective process commonly based on experience derived from past, similar-type projects. Experience is accumulating that indicates that generic classification criteria are only partly successful in ensuring accuracy and consistency in estimating project-specific impacts. In the future, there is likely to be growing pressure to replace what is effectively a “desk-top” classification process with a system which gives increased emphasis to the analysis of field-based, project-specific information.

PUBLIC PARTICIPATION

Despite the widespread recognition of the importance of public consultation, particularly in the scoping and assessment phases of EA, it has yet to become a tool systematically employed in the EA process. This appears to be particularly true for those projects where impacts are considered to be only “moderately significant” (e.g. type II or B projects). In light of the increased emphasis that many IFIs are placing on assessing the potential social impacts associated with projects, there is likely to be an increased use of the public consultation process in project design for both social and environmental objectives.

DANGER OF “DISCONNECT”

Although most financing institutions see EAs as part and parcel of the project design and implementation process, some project managers continue to look at EA as a stand-alone exercise to be carried out separately from the mainstream of a feasibility study. Often this results in a failure to introduce EA findings in project design.

REGIONAL, SECTORAL AND STRATEGIC EAS AND THE AGRICULTURAL SECTOR

There are signs of growing reliance by some IFIs on the use of sectoral and regional EAs in the assessment process together with a corresponding reduction in use of project-specific EAs. This, at least in part, is a response

among some IFIs to reductions in resources and time available for detailed project preparation, but is also due to the analytical limitations imposed by lack of baseline data and an absence of quantitative methods on which meaningful impact assessments can be based. However, the increased use of these tools has the advantage of moving the EA process further “upstream” and potentially achieving greater impact. To date, these tools have only been applied sparingly in the agricultural and NRM sectors. There will be a need to develop greater familiarity and experience in their application to these sectors.

MONITORING

Despite its critical role in ensuring that mitigation measures are effective, monitoring is generally thought to be one of the least effective phases of the EA process. Common reasons cited for this include: the absence of baseline information; the difficulty and expense of collecting relevant data; and the technical demands placed on national agencies to implement a monitoring plan.

One approach to strengthening the monitoring process is to include key environmental indicators among the overall impact and performance monitoring indicators. Another is to make more use of simple, inexpensive, “low-tech” procedures that compensate for reduced accuracy and detail by increased practicality.

Despite the considerable progress that EA as a tool has achieved in promoting increased efficiency in project design, there remain a number of aspects which continue to limit its effectiveness.

For Further Information

This guideline has provided a brief treatment of the EA concept, procedures and tools. It is intended to be followed by subsequent guidelines that will cover environmental issues associated with the agricultural and related sector projects in greater detail. Regarding EA in general and the policies and procedures of IFIs, readers are encouraged to periodically search the Internet for the latest information. Some currently useful Web sites are provided below:

International Financing Institutions, UN Organizations and Selected NGOs Promoting EAs

African Development Bank

<http://www.afdb.org/about/oesu-home.html>

Asian Development Bank

<http://www.adb.org/Work/Environment/>

Caribbean Development Bank

<http://www.caribank.org>

European Bank for Reconstruction and Development

<http://www.ebrd.com/english/enviro/index.htm>

European Investment Bank

<http://www.eib.org/obj/env.htm>

European Union

http://www.europa.eu.int/pol/env/index_en.htm

Inter-American Development Bank

<http://www.iadb.org/sds/index.cfm>

International Fund for Agricultural and Development

<http://www.ifad.org/>

Islamic Development Bank

http://www.isdb.org/English_docs/idb_Home/

World Bank

<http://www.worldbank.org/html/extdr/thematic.htm>

FAO Investment Centre

http://www.fao.org/waicent/faoinfo/tcd/tci/pag_envi.htm

International Association for Impact Assessment

<http://www.ext.nodak.edu/IAIA/>

United Nation Development Programme

<http://www.undp.org/seed/guide/publication>

United Nation Environmental Programme

<http://www.unep.org/unep/sub51.htm>

World Resources Institute

<http://www.wri.org>

Selected References - IFI policies/procedures

Environmental Assessment Guidelines of the African Development Bank (AfDB, 1992)

Environmental Assessment Requirements of the Asian Development Bank (AsDB, 1998)

Environmental Review Guidelines of the Caribbean Development Bank (CDB, 1995)

Environmental Procedures (EBRD, 1992)

Procedures of the Committee on Environment and Social Impact (IaDB, 1998)

Administrative Procedures for Environmental Assessment in the Project Cycle (IFAD, 1994)

Environmental Assessment: BP 4.01 (IBRD, 1998)

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This Guideline was prepared by Patrick Duffy and Random DuBois.

Please address comments and enquiries to:

THE SENIOR ENVIRONMENTAL OFFICER OF THE FAO INVESTMENT CENTRE
Food & Agriculture Organization of the United Nations (FAO)
Viale delle Terme di Caracalla
00100 Rome, ITALY

TELEPHONE: (39) 06 5705-5409

FAX: (39) 06 5705-4657

E-MAIL: TCI-ENVIRONMENT@FAO.ORG

<http://www.fao.org/WAICENT/FAOINFO/TCD/tci/tci.htm>



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