

BMZ

aktuell

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**Environmental Impact
Assessment
(EIA)
in Development Cooperation
Projects**

- TC & PCA system
- EIA procedure & BMZ activities?

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List of abbreviations and acronyms

BGR	Bundesanstalt für Geowissenschaften und Rohstoffe (<i>Federal Institute for Geosciences and Natural Resources</i>)
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (<i>Federal Ministry for Economic Cooperation and Development</i>)
DAC	Development Assistance Committee (OECD)
DC	Developing Country
DEG	Deutsche Investitions- und Entwicklungsgesellschaft mbH (<i>German Investment and Development Company</i>)
ER	Environment and Resource protection
FC	Financial Cooperation
→ GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (<i>German Agency for Technical Cooperation</i>)
IIED	International Institute for Environment and Development
IUCN	The World Conservation Union
→ KfW	Kreditanstalt für Wiederaufbau (<i>German Agency for Financial Cooperation</i>)
OECD	Organisation for Economic Co-operation and Development
PTB	Physikalisch-Technische Bundesanstalt (<i>Federal Institute of Physics and Metrology</i>)
TC	Technical Cooperation
UN	United Nations
UNCED	United Nations Conference on Environment and Development (Rio de Janeiro, 1992)
WB	World Bank
WRI	World Resources Institute

1. Environment and resource protection in development policy

Economic, technical and social developments, coupled with global population growth, are placing an increasing strain on natural resources. Since the early seventies, there has been growing recognition and public awareness of the earth's limited capacity to withstand this burden. Indeed, it was ecological damage that first led western industrialised nations to realise that economic prosperity could not be sustained without protecting the natural environment. In many countries, this insight triggered the introduction of government environmental policies, the first step being to more rigorously assess and restrict negative environmental impacts within the scope of approval procedures for larger-scale projects. Besides being refined, standardised and given a firm legal basis, environmental regulations are now increasingly being complemented by the application of economic instruments (e.g. taxes and charges for environmental protection).

Developing countries have also begun to address environmental issues, although somewhat later than the industrialised nations. At the 1972 United Nations Conference on the Human Environment in Stockholm, the developing countries were still accusing the industrialised nations of using environmental protection as a pretext to hinder technical and industrial modernisation in the DCs. Nevertheless, in the period that followed, many developing countries established regulations and in some cases administrations to address at least certain areas of environmental protection.

Finally, at the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro, all sides essentially agreed that if the human race is to survive, then it needs to rethink its actions and strive towards more environmentally sustainable development, which takes account of the global ecosystem's limited capacity to redress the damage suffered, and which provides not only regional, but also global solutions. In future, the interrelationships between environment and development will need to be considered in both the North and South, and a joint approach developed which pays equal attention to ecological modernisation (in industry), structural reforms (in macroeconomic planning) and changes in behaviour (among resource users).

Over the last twenty years, environment and resource protection has gained ground in international development cooperation. As a result, procedures geared to assessing and considering the environmental impacts of projects/programmes have gradually been elaborated, introduced and enhanced, and corresponding administrative structures created (e.g. the United Nations Environment Programme UNEP, environmental units within multi- and bilateral donor organisations).

In 1975, the Government of the Federal Republic of Germany incorporated environmental protection into the list of objectives contained in its "Strategy for Development Cooperation". When the latter was superseded in 1986 by the "Basic Principles of Federal Government's Development Policy", the environmental objectives were defined more specifically. Environmental protection was declared to be one of the five key areas of development cooperation and environmental impact assessments became mandatory for official development projects by the German Government. When, in 1991, the new criteria for assistance from the German Federal Ministry for Economic Cooperation and Development (BMZ) were introduced, environment and resource protection joined poverty alleviation as a key cross-sectoral focus of German development policy.

Essentially, this policy is implemented on three levels:

- by according priority to environment and resource protection in bilateral cooperation with DCs (e.g. at government negotiations), in international agreements (e.g. with other industrialised countries/donors, and with DCs), and last but not least in the national context (e.g. efforts to establish a coherent policy, awareness-raising);

- by giving preference to the promotion of projects which are designed predominantly and directly to protect the environment, and/or achieve sustainable natural resource management;

by taking into account the results of the environmental impact assessment when deciding on project promotion, and by steering the project on the basis of environmental criteria (EIA as a process within the project cycle); both these approaches have led to environmental protection measures becoming firmly embedded in the project design and implementation process.

When elaborating the principles on which these activities are based, the German Government consults with the other industrialised countries, in particular through the OECD Development Assistance Committee (DAC).

2. The Environmental Impact Assessment (EIA)

EIA is first and foremost a tool to help plan projects and take decisions on their eligibility for promotion. At the same time, its methodology allows the scope of application to be widened to incorporate EIA into the project cycle. The key objective of EIA is to plan and implement projects such that negative environmental impacts are either prevented, or reduced to an acceptable level.

The basic elements of EIA are

- identification of direct and indirect effects on the environment of a project currently at the planning stage;
- cataloguing of those effects and the resulting impacts;
- evaluation of the impacts on the basis of standards either already defined or still to be laid down (which might lead to project modification);
- as and where necessary, identification of protection or monitoring measures;
- investigation of alternatives to the project, including the "zero"; i.e. "do nothing" option;
- recommendation of a decision for or against promotion based on ecological criteria;
- identification of the actual environmental impacts which occur, and final overall assessment.

The basics of EIA methodology were developed in the sixties, and applied for the first time in the construction of highways in the USA, thanks to a law prescribing an Environmental Impact Assessment.

Effects on humans (impacts on both the health-related and social dimensions, for instance the impacts of resettlement and effects on indigenous peoples), animals and plants, soil, water, air, climate and landscape, including the respective reciprocal effects, and on cultural and other material assets.

EIA procedures are now legally required in most industrialised countries, and in a number of developing countries too. As a rule, these legislative provisions, which relate predominantly to investment projects, have caused the various stages of the EIA process to become highly formalised.

Development projects are planned and implemented by consensus between sovereign partners; although the legislative framework in force in the project country takes precedence. This also applies to EIAs, especially where standards of evaluation are concerned. Hence, EIA in the context of development cooperation cannot be forced into a formal "straight jacket", but is always an integrated component of the standard procedures of project planning, decision-making and steering.

3. EIA in development cooperation

3.1 General

The "Basic Principles of Federal Government's Development Policy" make EIA compulsory for official German development projects. EIA has also been institutionalised through a corresponding BMZ administrative directive, and operationalised through extensive working materials geared to identifying and assessing environmental impacts (Environmental Manual etc.). The OECD countries share a common understanding of what EIAs for development projects basically need to entail, as expressed in their respective recommendations and guidelines.

The basic UNCED documents (1992) refer both directly and indirectly to EIAs. As well as EIAs being mentioned in several Chapters of Agenda 21, Principle 17 of the Rio Declaration (political commitment) in particular calls for EIAs to be given the status of a national instrument and employed for all activities that are likely to have a significant adverse impact on the environment, and that have to be decided on by a competent national authority.

The ongoing elaboration of EIA procedures in German development cooperation, their improved application and the handling of acute, problematic cases and issues are the responsibility of a working group comprised of environmental coordinators from the BMZ and the implementing organisations of official bilateral development cooperation (KfW, GTZ, DEG, BGR, PTB).

3.2 History

The first steps toward today's EIA procedures for development cooperation were the regulations introduced by the implementing organisations to force planners to look more closely at environmental issues when preparing FC and TC projects (1972 KfW list of typical negative impacts of various categories of project; GTZ Guidelines for Appraisers/Consultants, which stated that ecological issues were also to be considered at project appraisal).

In 1983, the BMZ introduced guidelines for classifying projects according to their anticipated effects on the environment. Taking these guidelines as a basis, the

implementing organisations classified the projects they were implementing into categories reflecting the relative level of impact.

Since this kind of project categorisation is not sufficient per se, the BMZ, GTZ and KfW had the "Materialien zur Erfassung und Bewertung von Umweltwirkungen in Vorhaben der wirtschaftlichen Zusammenarbeit" (*documentation on monitoring and evaluating the environmental impacts of economic cooperation projects*) drawn up by a group of experts. These appeared at the end of 1987, and contained guidelines and practical instructions on how to identify and analyse what were considered the most important potential environmental impacts of a wide variety of project types. They also offered pointers on environmentally sound project design. At the same time, based on the experience gained, the BMZ introduced more elaborate EIA procedures for official bilateral development cooperation projects in early 1988, which have been applied ever since. These also include a modified system of environmental categories, which indicate the level of negative environmental impacts caused by the project, and the need for action.

In the years which followed, continuous improvements were made, chiefly with respect to application of the procedures, via the working group of environmental coordinators, via a TC project to further develop EIA instruments, through project evaluations focusing on environmental issues, through staff training within the involved institutions, and through international consultation, chiefly within the OECD (DAC Working Party on Environment and Development). Since 1992, a detailed "environmental annex" has been compulsory for appraisal reports on projects dealing with environmental issues. In 1993 the BMZ published the German version of its Environmental Manual (enlarged revised edition of the 1987 "Materialien"; cf. Section 7.2).

3.3 Aim and structure

If one considers the various levels involved in the pursuit of environmental protection goals in development cooperation (ranging from efforts to secure a coherent policy within the German Government or the EU, via political dialogue with the DCs, through to concrete project cooperation), it becomes clear that EIA (cf. Section 2) only has a key role to play at the project level (EIA is always tied to a specific project).

By identifying possible negative environmental impacts at an early stage, and devising appropriate measures to contain, prevent or compensate them, as well as alternative responses, EIA helps save time and money which unforeseen environmental problems would otherwise incur. EIA also helps prevent irreversible environmental damage. In addition, it takes account of the environmental interests of affected population groups, institutions and NGOs, thus making an important contribution toward the establishment of institutional capacities with their own self-reliant environmental policy.

Although EIA is understood and treated as a process within the development project cycle, its main thrust is in the project planning phase, since it is here that decisions on project promotion are taken on the basis of the overall results obtained (including EIA results). The EIA process itself is structured as follows:

1. Initial screening. If at this stage the anticipated environmental effects of the project are found to be minimal, a full EIA need not be carried out. Should the

Impacts be considered significant, or if they are unknown or of such a complex nature that no precise prediction can be made, then the EIA must be continued.

2. Scoping, i.e. an intermediate assessment to determine the scope of investigations required during the project preparation phase. A decision may be taken at this stage to conduct a separate environmental study.
3. Identification and assessment of environmental impacts, a process forming the basis for recommendations on environmentally sound solutions or options. These include selection of the appropriate site, and constraints such as protection, monitoring and/or compensatory measures which need to be included in the project design. This step might take the more direct form of an "environmental annex", or may first involve a comprehensive environmental study.
4. During project implementation, and possibly during the operational phase, the EIA process is continued through
 - ongoing monitoring of the project's environmental impacts, including any protection measures introduced by the project country (project institution or local monitoring institution), or the donor, and
 - possibly repeating the above-mentioned stages of the process; this occurs especially where the project design has been modified (e.g. where additional funding is provided to prolong or widen the project), or where unforeseen ecological burdens or risks arise (perhaps due to changes in the project context).

The scale of the EIA process can vary widely, from simply establishing that a project's negative environmental effects are negligible, through to conducting extensive studies wherever projects are deemed to be ecologically problematic. Practical experience has shown that the breadth and depth of the EIA process are best kept flexible; in-depth environmental studies are therefore an exception rather than the rule.

Once project cooperation has been completed, the project institution still needs to continue addressing the respective ecological issues. Consequently, capacity building within these institutions is often a component of development programmes.

4. Assessment of environmental impacts

The basic aim of any EIA is to identify and assess the predicted environmental situation once the project under investigation has been completed. To do so, EIAs produce a prognosis of all changes which the individual project components and the project as a whole are expected to cause in the natural resources being monitored (chiefly soil, water, air, flora, fauna). This means taking a closer look at the management of those natural resources, at existing burdens and, where appropriate, environmental effects from other sources (e.g. other relevant projects). The key issue then is how these changes are to be judged in the light of society's values, and ecological development goals. When assessing these effects and deciding on project promotion, it is crucial to grasp fully the significance of the

anticipated negative project impacts on the values and goals which society decides to uphold and protect. A number of aspects vital to German development cooperation are dealt with below.

Top priority is given to the preservation of human health (in general and at the workplace), and the sustainability of ecosystems as the foundation of human existence. These are followed by the maintenance and enhancement of the quality of life, the preservation of cultural and material assets, as well as urban and rural landscapes, but also global environmental protection objectives, such as responding to climate change, conserving biodiversity and protecting the ozone layer. Given the broad diversity of ecological conditions and environmental policy frameworks surrounding projects, impacts always need to be assessed on a case-by-case basis.

When assessing pollutant- or noise-related environmental burdens, a distinction needs to be made between emission and immission (pollution) limits. The latter lay down the utmost degree to which air, water or soil can be burdened (usually in relation to human health). Although pollution limits are based on scientific findings regarding dose-effect relationships, which are in principle the same for all human beings, the decision as to which levels (also for children; old people etc.) are tolerated is ultimately a political one, and one that is strongly influenced by the economic, social and cultural development of a country.

Consequently, where standards for project decisions do exist, they are, for the most part, appropriate local ones that are often stricter than those applying in Germany, whose standards can be less rigorous than those of other industrialised nations (e.g. Sweden, Switzerland). Where no precise local standards exist, standards applied in industrialised nations can be taken as a guideline. And yet, a schematic transfer of these limits to developing countries would be inappropriate, especially since negative ecological impacts can still occur even below these thresholds (e.g. given a generally poor health status of the population, or in the case of damage to particularly sensitive plants) or a country's cultural heritage could suffer (decay of buildings). Since damage to plants is species-specific, limits are best specified that effectively protect the most sensitive species. Where corresponding data are available, the best means of quantifying damage to crop plants is by calculating yield losses. Where edible plants accumulate pollutants, and where sufficiently reliable data are on hand, recommendations/limits are best based on maximum permissible quantities for human intake.

In the international context, emission standards in Germany tend to be strict, in order to ensure that pollution limits can be complied with, despite the usually large number of emission sources. However, these pollution limits are also a reflection of the high standard of technology which, as a rule, is not to be found in developing countries. Experience has shown that complex protective measures often entail considerable technical and economic problems. Therefore, it is more appropriate in development projects to pursue simpler, yet, in the long run, more effective approaches to environmental protection, which can also be applied self-reliantly in DCs. In the case of especially critical pollutant emissions (e.g. heavy metals), project appraisals generally apply German or international standards.

The assessment of environmental impacts is especially difficult in projects where no pollutant-related burdens are anticipated, but where it is a question of evaluating the impacts of other types of intervention into the ecosystem (air, water, soil, fauna, flora). To date, there are hardly any fixed or even quantitative rules for

these types of impact. Just what level of physical, intervention ecological subsystems can withstand becomes an issue of concern whenever land and water management systems are changed or intensified, as occurs chiefly in infrastructure and agricultural projects. Here, every single case needs to be examined - as thoroughly as possible - so as to determine to the extent to which the ecological equilibrium is disturbed by e.g. changes in vegetation caused by clearance, soil loss, sealing of land areas, damming up of rivers and streams, or a lowering of the ground water level. The limits at which the ecosystem is no longer able to withstand such stress must also be identified. Where there are no concrete standards to apply, assessment is based instead on the current state of scientific knowledge, on sector- and project-type-specific experiences, and - if available - national and international provisions geared to protecting biodiversity, the ozone layer, the earth's atmosphere, or wetlands. Crucial in this context is whether and to what extent the project will have long-term negative impacts on important components of ecosystems which will directly affect the population (soil fertility, vegetation coverage, biodiversity, water quality etc.). Where the project is likely to cause irreversible damage, its eligibility for promotion will be particularly doubtful.

Whilst the assessment of environmental impacts described above relates to the purely ecological dimension of the project (as only one of several criteria for the final decision as to eligibility), in certain exceptional cases, it may be necessary to go a step further and to weigh the environmental effects against the benefits of the project. A comparison of this kind will be appropriate in those instances where further measures could reduce the negative impacts to a tolerable level. In such cases the costs and potential financial benefits of the project measures should be included in the economic appraisal wherever possible. Should the BMZ ever have to take a decision on a project deemed ineligible for promotion on the basis of ecological criteria (cf. Section 6, penultimate paragraph), it would still be appropriate, before reaching an overall assessment, to compare the environmental damage with the project's net development, economic and socio-economic benefits.

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6. Project classification

5.1 Environmental categories - the result of EIA

The key concept when deciding on a project's eligibility for promotion or steering its implementation is maximum transparency, also with respect to the ecological aspects. For administrative purposes, each project is classified into one of the "environmental categories" ranging from E₀ to E₄, in accordance with the criteria introduced in 1988. The "E category" indicates the project's level of negative environmental impact, and the mitigating action required. The categories are defined as follows:

- E₀ no significant negative environmental impacts.
- E₁ negative environmental impacts possible or anticipated; impacts tolerable; no special environmental protection measures required.
- E₂ negative environmental impacts anticipated; after introduction of environmental protection measures, impacts tolerable; environmental

protection measures and monitoring required; low risk of unforeseen impacts and/or improper implementation or operation of the measures.

E₃ negative environmental impacts anticipated; after introduction of environmental protection measures, impacts tolerable; environmental protection measures and intensive monitoring required; increased risk of unforeseen impacts and/or improper implementation or operation of the measures.

E₄ negative environmental impacts anticipated; impacts ecologically intolerable.

The E category does not constitute a rating of the need for a given project or of its quality. Instead, it is designed to serve as an indicator of the project's environmental significance, and to facilitate cross-section studies, for example, by identifying projects involving a potential environmental risk/need for action.

Where - as is often the case - a project entails a number of different negative environmental impacts/risks, its overall classification is based on the most serious potential impact.

Given that EIA is a process within the project cycle, the E category can in principle be changed; i.e. should a project review establish that the environmental risks have changed, the project can be reclassified. It sometimes happens that a new project is classified as E₂ on the basis of the overall ecological assessment, yet an unavoidable degree of uncertainty vis-à-vis the future behaviour of the project partner causes it to be classified provisionally as E₃.

5.2

The "ER label"

The "ER label" (ER = environment and resource protection) is an administrative tool applied both in annual project planning, and in implementation, to help keep a check on the proportion of official development projects dealing with environment and resource protection; i.e. to ensure it corresponds to the prescribed targets. "ER" is a suprasectoral label attached to projects which aim primarily and directly to protect and conserve the human environment and natural resources, e.g.: institutional development in environment, sustainable natural resource management (for instance with respect to water, soil, forests, wildlife, fish), land-use planning, desertification control, saving fuelwood, biological pest management, solid waste management and sanitation, air quality control, nature conservation. It is therefore necessary to make a clear distinction between the E category of a project (which marks the result of the EIA), and the additional ER label, which is not related to the EIA.

As well as being used for planning and statistical purposes, the ER label can also, in exceptional cases, be applied as an additional criterion for the granting of special conditions (e.g. a non-repayable subsidy as opposed to a loan under FC), should it appear that a high-priority environmental project might otherwise prove impossible. This could occur for instance where new investments would not otherwise be viable, or where the developing country lacks the appropriate capabilities.

Since the ER label is derived from the project objectives, but by no means answers all the questions pertaining to possible environmental burdens, ER projects also have to undergo an EIA, and be classified into an E category. For instance, if

filters are to be installed at an existing coal-fired power plant to prevent atmospheric pollution (ER project), the pollutants accumulating will also require ecologically sound disposal.

6. EIA within the project process

Even when a project is first being selected for possible promotion and the initial documents considered, an assessment of the environmental impacts can play a key role in influencing further procedure. An OECD "List of projects or programmes most in need of environmental assessment" from 1986 (Annex 1) provides an overview of projects which experience has shown to cause considerable environmental impacts.

→ The assessment of anticipated or possible project effects on the environment forms part of the preliminary report by the respective implementing organisation to the BMZ. This report may then also contain specific recommendations designed to ensure that the EIA is integrated into the ongoing project process in good time (to prevent delays), and is focused on the concrete problems (concentrating on the key issues for decision-makers).

Once the BMZ has established that the project is suitable and eligible for appraisal, and has commissioned the implementing organisation to conduct it, all significant environmental impacts are then systematically identified and assessed on the basis of documents either already on hand, or possibly still to be obtained. Local appraisal is also especially important in this context. On the basis of this assessment, corresponding proposals are drawn up on how to prevent negative impacts, or reduce them to an acceptable level, and on how best to monitor this. The appraisal also has to cover those aspects mentioned in Section 2.

→ Also involved in these environment-related planning and preliminary consultation activities are the responsible persons and institutions in the developing country. In addition, and depending on the type of project, maximum scope is generated so as to take account of the interests of affected population groups and relevant NGOs.

Special environmental studies, investigations and/or expert studies become necessary where the existing project and planning documents are unable to provide sufficient answers to the questions of environmental compatibility and corresponding project design. National institutions from the developing countries with a mandate to perform environmental protection tasks should be involved in the preparation of these studies.

The appraisal report (FC) or proposal for project implementation (TC) identifies and assesses environmental impacts, proposes ecologically sound solutions, defines indicators for measuring, at a later date, the degree to which environmental objectives have been achieved, and proposes classification of the project into one of the E-categories (and possibly also labelling as ER).

→ Past experience has shown that combining adequate treatment of a project's environmental aspects with the need to draw up a concise and balanced appraisal report/implementation proposal is not always possible; therefore, the so-called environmental annex was introduced in 1992. This annex is now regularly attached to all projects classified as E₂ to E₄, as well as for projects which,

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although requiring broad discussion, are classified as E₁ or E₀ after closer investigation of the environmental aspects. The scope and breakdown of the annexes depend on precisely what needs to be discussed in the particular case in hand. Nevertheless they are required to

- be as precise as possible in terms of content (What are the impacts and protective measures? What are the monitoring procedures?) and balanced (not just listing environment aspects without providing the additional information required to differentiate the options for decision-makers). The reasons for classification into whichever E category, and if applicable the ER label, must also be clearly explained, and

- the above must be incorporated correspondingly into the implementation plans (i.e. in the form of concrete work results, agreed conditions or recommendations etc.). This ensures that the subsequent project progress reports make a point of addressing the environmental aspects.

The annex also disciplines EIA implementation more strictly, as it obliges those involved to present the results in a clearly structured and comprehensible manner. It also increases transparency for decision-makers at the BMZ, and for later project progress and impact monitoring by all participants. Finally, it makes presentation of the results far easier.

① Appraisal Report

The environmental annex is not drawn up once only (at appraisal or upon subsequent reclassification of an ongoing project into one of categories E₂ to E₄), but is also reviewed, and if appropriate updated, during project implementation. It is also referred to when drawing up the final report after project completion.

BMZ decision

On the basis of the appraisal report and, where applicable, final consultation with the project partners in the developing country, the BMZ decides whether the project is eligible for promotion. Given a positive decision, the BMZ then commissions the implementing organisation to carry out its inputs, project-related agreements are drawn up with the developing country, and the project can be launched.

② Agreement with c/p

When deciding on projects in which intolerable environmental impacts are either possible or expected, the overall development assessment will need to weigh the ecological aspects against the other, e.g. economic and socio-economic criteria. Where intolerable ecological impacts are anticipated (category E₄), the BMZ State Secretary (possibly in agreement with the project country partners) will decide on the project's eligibility for appraisal/promotion. In practice, however, such an extreme situation has not arisen to date.

During project implementation, project monitoring and steering is carried out chiefly by means of ongoing project progress reporting, and through local project reviews (project progress reviews or monitoring missions by the implementing organisation, BMZ evaluation). This kind of review, or a supplementary project appraisal, is also carried out as a rule before additional funds are made available to extend or widen projects, especially where this will involve significant modifications to the project design. Where unexpected negative environmental impacts or risks arise in the course of the project there are, as for other project problems, a number of established mechanisms running across all working levels (project, implementing organisation, BMZ), which range from special reports, through to discussion at government negotiations.

7. Applying EIA in practice

7.1 The BMZ and its implementing institutions

Administrative directives and instructions for implementing EIA procedures, as well as in-house regulations defining spheres of responsibility, are in force at both BMZ and its implementing organisations. The integration of the EIA process into project processing reflects the division of competences between the government and implementation levels, i.e. the BMZ steers general application of the EIA process, issues political directives, and examines the results of EIA with regard to plausibility criteria. As far as the project itself is concerned, implementation of the EIA is the sole responsibility of the respective implementing organisation. The environmental coordinators of the BMZ and implementing organisation are required, on the one hand, to facilitate implementation of the EIA process within their respective organisations. On the other hand, within the working group of coordinators, they have the task of exchanging information and experiences, of working towards solutions of general applicability and significance, and helping to further develop the EIA instruments.

The BMZ has set up a division for cross-sectoral tasks connected with environmental protection and natural resource conservation. The Head of Division simultaneously fulfils the function of BMZ environmental officer and environmental coordinator. The Division monitors application of EIA procedures, and is involved in the preparation and steering of projects with a special link to environmental issues. In this context, it attaches importance to a swift and thorough identification and treatment of environmental issues by both the responsible project Division (usually a Country Division) and the respective Sectoral Division.

KfW → At the KfW, two units are responsible for the tasks of coordinating and consulting on environmental issues, one unit being in the Basic Issues Department and one in the Technical Department. For each FC project, a group of staff drawn from the Basic Issues, Country and Technical Departments (including environmental experts) is assigned to define the project procedures, and therefore also the breadth and depth of the EIA. Should the need arise, external experts can also be called in to address specific issues - as is the case with other implementing organisations.

→ The GTZ has made EIA an integrated component of the multi-stage "objectives-oriented project planning" process (ZOPP), an instrument through which interdisciplinary teams (some including project country counterparts) facilitate the planning and implementation of TC projects. A unit responsible for basic issues of environmental protection and the conservation of natural resources is kept informed of projects especially relevant to such issues, and can be involved in project planning and implementation. The sectoral divisions have designated "environmental officers" to promote cooperation with that unit. Furthermore, the GTZ also offers training courses in EIA which - by comparison with in-house seminars at the KfW or BMZ for instance - are broader in scope, e.g. also involve external experts or are targeted at counterpart experts from developing countries.

Since 1989, the DEG has also been conducting systematic assessments of the environmental impacts of all new projects. However, since it conducts its own business operations with capital market funds and in accordance with private-sector principles, EIA procedures designed for official development cooperation do not apply to it directly; nevertheless, the DEG does largely comply with these

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procedures. When, on a relatively small scale and in addition to its standard operations, the DEG also implements FC trust projects, the same EIA regulations apply as for FC projects by the KfW. The DEG's expertise on environmental issues is drawn mainly from external sources, i.e. from an independent German institution for industrial environmental protection, from a number of independent experts and from appropriate NGOs.

EIA in TC projects by the BGR and PTE is based on the procedures applied by the GTZ. Corresponding consultation and coordination activities are performed at the BGR by the "International Cooperation" and "Environmental Geology/Environmental Compatibility" sections, and at the PTE by the "Technical Cooperation" section.

7.2 Tools

One important tool for EIA in development cooperation is the three-volume BMZ Environmental Manual (see Annex 2 for list of contents), the German version of which appeared in 1993¹. The manual resulted from a revision of the "Arbeitsmaterialien" (documentation on monitoring and evaluating the environmental impacts of economic cooperation), first introduced in 1987, and was produced in close cooperation with the GTZ and KfW, among others. In order to be able to adequately assess on a cross-sectoral basis the environmental relevance of a project or planned activity (e.g. site planning for industry), it is not only necessary to be familiar with the specific local conditions and trends, but also to possess a broad and deep knowledge of the sector(s) and the project type.

Volumes I and II of the Environmental Manual contain around sixty catalogues providing an overview of possible impacts on the natural and social environment, and well as known environmental measures, for the most important areas of development cooperation. They have been drawn up such that no further tools are needed initially, although references to literature are provided. The recommendations for analysis and assessment of environmental impacts contained in the catalogues are complemented by Volume III, which contains a compilation of numerous environmental parameters and related standards of various countries.

The Environmental Manual is thus intended to serve as a complete reference work for a wide variety of projects, providing support for the work of all those involved in project planning, decision-making and implementation. However, in more complex situations, additional expertise will have to be called in to help elaborate options for decision-makers.

The Manual is also suitable as a source of background information for persons involved in projects in a non-sector-specific capacity, e.g. for purposes of initial orientation during the preliminary project phase. To make the manual accessible to other interested parties, especially in developing countries, English, French and Spanish versions are currently being produced.

Alongside the EIA documentation, the GTZ also drew up a catalogue of environmental protection organisations in developing countries in 1987 on behalf of the BMZ. The purpose of this catalogue is to disseminate knowledge of the

¹ available in bookstores; publishers Vieweg, Braunschweig, 1993, ISBN 3-528-02303-1, 3-528-02304-x, 3-528-02305-8

administrative frameworks and relevant institutions required for environmental measures in project countries. The catalogue contains information on environmental agencies, government environmental research facilities, independent research and training institutions, international centres and NGOs. One data sheet is included per institution, indicating key areas of activity, existing infrastructure, contacts/experience etc.. Although the large number of institutions forces the catalogue to focus on the essentials, which means that it cannot always keep pace with every single new development, it has proved to be a valuable tool in everyday practice. It is therefore being continuously updated by the GTZ - using a computer database - on the basis of systematic interviews with country-experienced experts and institutions. The catalogue of organisations is now kept at the environmental documentation centre of the GTZ environmental division. This computer-based documentation unit focuses on the regional dimension of the environmental situation in developing countries, as well as EIA literature (procedures and methods of EIA, experiences). The documentation centre services are available not only in GTZ circles (Head Office, seconded experts, external consultants, counterparts in project countries), but also to the BMZ, further implementing organisations and other interested parties.

The following sources of information on EIA, which complement the Environmental Manual, also warrant mention:

- OECD-DAC Guidelines on Environment and Aid.
- a wide variety of guidelines and recommendations elaborated in the light of experience and recurrent problems in ongoing German development cooperation, e.g. supplementary KfW checklists (for instance for diesel stations), or agreed instructions/recommendations for the handling of certain hazardous substances.
- the IUCN Centre for Environmental Law in Bonn, which, inter alia, provides developing countries with specific support on environmental law, and has an extensive collection of national and international environmental regulations and agreements, and corresponding literature.
- the International Environmental and Natural Resource Assessment Information Service (INTERAISE): This information service is run by the IED (London) in cooperation with WRI (Washington) and IUCN (Switzerland). Country-specific environmental studies and supplementary information materials are available through INTERAISE.
- other donors' tools, from which additional information can also be obtained in certain cases (e.g. the Environmental Assessment Sourcebook of the World Bank, or the Environment Manual of the EC Commission).

8. Problems in the application and development of EIA

Due to the broad spectrum of activities which development cooperation projects involve, EIA ultimately reaches its limits on a number of fronts, in particular, when dealing with the different types of promotion instruments and projects, the various understandings of what a project is, and the various conditions in project countries.

The EIA prescribed in the "Basic Principles of Federal Government's Development Policy" relates to official German financial and technical cooperation. It therefore follows that development projects executed by institutions outside the scope of official German development cooperation are not required to apply these procedures - even in cases where the German Government is indirectly co-financing the project. Specifically, this includes the various forms of TC in the wider sense (development projects run by church organisations, private institutions etc. which are being subsidised by the German Government), the DEG's own business operations and the multilateral development cooperation contributions by the German Government (institution- or project-related funding to the World Bank, to the major regional development banks or to UN organisations). Whilst the multilateral organisations have their own EIA procedures, the German institutions base their activities on the German EIA procedures for development cooperation, adapting them to suit their own purpose and objectives.

There are also a broad range of activities, which, whilst also promoting development in partner countries, set themselves apart by not observing the formal procedures of bilateral development cooperation in their efforts to attain their objectives, and, in particular, by not being subject to a comprehensive project appraisal. Important examples include the KfW Subsidiary Companies and Technology Programme on behalf of the BMZ and - far more importantly - the Hermes sureties of the German Government (coordinated by the German Federal Ministry of Economics) for purely commercially financed transactions. These export guarantees are primarily an insurance instrument to promote German exports, the development and ecological aspects of which can also be influenced by the BMZ on the basis of plausibility checks (with respect to which additional information may also be obtained).

The situation is different in the case of mixed financing. This term denotes a project financing arrangement under which an FC loan is combined with a so-called KfW financial credit, whereby the latter serves solely to provide Hermes-guaranteed financing of German supplies and services, and does not originate from Federal Budget funds. Since, in this case, FC funds are involved and the entire financing of the project remains in the hands of the KfW, the entire project is appraised, and therefore also subjected to an EIA.

Even within the framework of official German development cooperation, there are types of project which present little or no scope for EIA, as the final use to which funds will be put is not known in full detail at the outset.

General commodity aid, for instance, provides developing countries with the foreign exchange they often lack to import goods and services to meet short-term day-to-day needs, and in order to maintain and better utilise the country's production capacities and infrastructure. In addition, since 1987, there has also been structural aid through which, especially in conjunction with WB-approved structural adjustment programmes, foreign exchange can quickly be made available to finance imports - provided that the developing country has taken economic policy measures geared to structural improvement. In neither case does a detailed project appraisal take place (appraisal is not applicable to commodity aid; with structural aid, the agreed package of measures is appraised). It is often difficult to draw up a prognosis of the environmental impacts caused by economic policy measures. However, the range of possible imports is restricted through agreed commodity lists which, instead of EIA being integrated into an appraisal process, include provisions which either rule out entirely the import of certain

environmentally hazardous goods, or require that special proof be provided or prior consent obtained.

In the case of development bank financing, a project appraisal is carried out which is inevitably confined initially to the working procedures of the bank, the promoted sectors and general compliance with environmental regulations. In other words, it cannot include the individual projects to be refinanced through FC funds. To ensure that maximum account of environmental issues is taken here too, there are a number of tools which can be applied, depending on the particular circumstances. These include agreements on projects which cannot be refinanced from FC funds (negative list), agreed decisions on individual cases, involving German participation under certain circumstances, environment-related back-up measures such as staff training in banks or supervisory authorities, and the setting-up of an additional credit line as a targeted incentive for projects making a special contribution toward environmental protection and the conservation of natural resources.

TFC
1000
2000

The notion of EIA as a process within the project cycle begs the question of what a project actually is. With regard to the project impacts it may be expedient or advisable to consider the environmental aspects in a wider project context. This is especially the case where two or more projects of a different nature aim to achieve a common goal. Examples of where it might be necessary to consider environmental impacts in this broader sense, including interrelationships with different projects, are the combination of a TC project by the GTZ with an FC project by the KfW, the complementing of an FC investment project with an FC back-up measure (the latter being run formally as a separate project) by the KfW, or programme co-financing in the form of parallel financing by various donors.

EIA as a process within the project cycle can serve as a project management instrument only insofar as the implementing organisation actually has some direct or indirect means of steering the project. The limits of this steering potential are set in each instance by the other project participants (developing country and co-financiers).

In many cases, the question arises as to how far the EIA can also extend to indirect project impacts. - The limit is reached where no clear causal relationship can be demonstrated between project activities and environmental burdens. For instance, power plant emissions have to be included in the EIA of a coal mining project where the power plant is entirely dependent on the mine for its fuel supply. Where the mine serves the general energy market, power plant emissions will not be included in the project EIA.

Since donors usually lose their influence once promotion is completed, permanent solutions to environmental and other key problems need to be identified as early as possible, if project success is to be sustainable. This would include for instance the introduction of break-even charges to ensure that, as far as possible, sanitation measures remain unsubsidised, or the involvement of environmental agencies at the implementation planning stage of industrial or power plant projects, with a view to their monitoring atmospheric and water contamination levels at a later date.

alternative

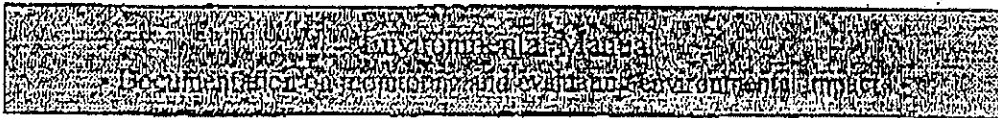
Where the anticipated negative impacts of a project are especially significant, the option of not promoting that project should be considered. However, this will by no means always involve a true "zero" or "do nothing" option (in approval procedures, this is the assumption that the project for which support has been requested will not

be implemented at all). The alternative in development cooperation is often: either promotion plus a contribution toward the prevention of avoidable negative environmental impacts, or rejection of promotion, even though it cannot be ruled out that the project might nevertheless be implemented by the project country, perhaps through another source of financing and without appropriate protective measures (a "do less than nothing" variation, as it were). In other words, a negative decision on promotion does not necessarily avert the threat of environmental damage. Alternative sources of financing can also sometimes be traced back to the fact that, in the face of more stringent environmental standards, some developing countries or implementing institutions consciously seek out donors who impose less extensive protective and/or control measures. The ongoing efforts of the OECD-DAC to harmonise these financing practices are therefore especially important.

In spite of the general increase in environmental awareness among project institutions and governments, implementation of EIA in developing countries is often difficult. EIA procedures for projects often describe the conditions required to achieve environmental protection objectives (e.g. land legislation, tariff structure for water or electricity, subsidy system for pesticides and fertilisers, timber concessions, pollutant emission controls, export taxes); the individual project itself, however, is usually able to make only a small contribution toward generating those conditions, since this requires a broad approach geared to helping developing countries realise their own environmental policies - an approach pursued by Germany in the ER projects (e.g. institutional development in environment, government advisory services, training in ecological specialisations), and through the environmental action plans drawn up for individual countries with international support. In this context, environmental policy also influences policy-making in other sectors (e.g. energy, transport, agriculture). The overriding goal is therefore ultimately to create an ecological framework for the respective developing countries (policy, legislation and administration geared to the objectives of sustainable, ecologically sound development), to which the instruments of project-based EIA and institutional development in environment make equal and complementary contributions.

List of projects or programmes most in need of environmental assessment (OECD, 1986):

- substantial changes in renewable resource use (e.g., conversion of land to agricultural production, to forestry or to pasture land, rural development, timber production);
- substantial changes in farming and fishing practices (e.g. introduction of new crops and fish species, large-scale mechanisation); use of chemicals in agriculture (e.g., pesticides, fertilisers);
- exploitation of water resources (e.g., dams, irrigation and drainage projects, water and basin management, water supply);
- infrastructure (e.g., roads, bridges, airports, harbours, transmission lines, pipelines, railways, tourism);
- industrial activities (e.g., metallurgical plants, wood processing plants, chemical plants, power plants, cement plants, refinery and petrochemical plants, agro-industries);
- extractive industries (e.g. mining, quarrying, extraction of peat, oil and gas);
- waste management and disposal (e.g., sewerage systems and treatment plants, waste landfills, treatment plants for household waste and for hazardous waste).



VOLUME 1

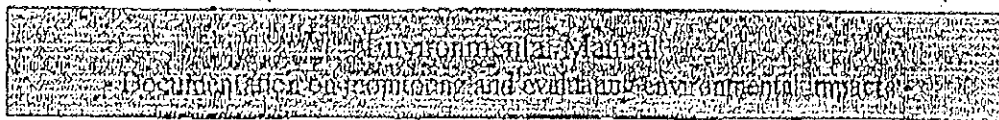
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- 1 Spatial and Regional Planning
- 2 Planning of Locations for Trade and Industry
- 3 Overall Energy Planning
- 4 Water Framework Planning
- 5 Transport and Traffic Planning
- 6 Tourism
- 7 Analysis, Diagnosis, Testing

Infrastructure

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- 9 Public Facilities - Schools, Health Care, Hospitals -
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- 13 Solid Waste Disposal
- 14 Disposal of Hazardous Waste
- 15 Erosion Control
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- 57 Timber, Sawmills, Wood Processing and Wood Products
- 58 Pulp and Paper
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- 1.2 Environmental standards
- 1.3 Structure of the Compendium of Environmental Standards (CES)

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Götz KfW
24/13

Environmental Impact Assessment GTZ a German example for EIA-implementation in Development Cooperation

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Germany

1. Environment and resource protection in German development policy

In 1975, the Government of the Federal Republic of Germany incorporated environmental protection into the list of objectives contained in its "Strategy for Development Cooperation". Environmental protection was declared to be one of the five key areas of development cooperation and environmental impact assessments became mandatory for official development projects by the German Government. When, in 1991, the new criteria for assistance from the German Federal Ministry of Economic Cooperation and Development (BMZ) were introduced, environment and resource protection joined poverty alleviation as a key cross-sectoral focus of German development policy.

The goal of German development policy is to improve the living conditions of people in our partner countries, especially among the poor sections of the population. This is geared to the aim of global sustainable development designed to guarantee the development opportunities of today's generation without constraining those of future generations.

Basic Principles

Development cooperation is help toward self-help. Assistance provided by way of DC is always subsidiary and complementary to the own endeavors of the partner countries' governments and people. In that respect, the most that development cooperation can do is to contribute toward sustainable developments in the partner countries.

Focuses

Limited funds need to be concentrated and brought to bear wherever nodal developmental shortfalls are identified. German DC therefore has the following focuses: poverty alleviation, environmental protection and conservation of natural resources, and education and training.

GTZ has focused greater attention on supporting partner countries in their efforts to secure the ecological foundation for sustainable development. This is evident specifically in the

- * integration of environmental issues into sectoral activities (energy: rational use of energy, agriculture: ecofarming, plant protection, biological pest control)
- * planning and implementation of projects which directly and immediately help to protect the environment (renewable energies, waste water and waste management, conservation of nature and biodiversity, erosion and desertification control, strengthening of environmental institutions)
- * design of country-specific environmental programmes and provision of support to partner countries in the elaboration of environmental action plans.

Essentially, this policy is implemented on three levels

- ⇒ by according priority to environment and resource protection in bilateral cooperation with DCs (Developing Countries) (e.g. at government negotiation), in international agreements (e.g. with other industrialised countries / donors, and with DCs), and last but not least in the national context (e.g. efforts to establish a coherent policy, awareness-raising);
- ⇒ by giving preference to the promotion of projects which are designed predominantly and directly to protect the environment, and/or achieve sustainable natural resource management as well as integrating environmental resource management into structural projects;
- ⇒ by taking into account the results of the environmental impact assessment when deciding on project promotion, and by steering the project on the basis of environmental criteria (EIA as a process within the project cycle); both these approaches have led to environmental protection measures becoming firmly embedded in the project design and implementation process.

When elaborating the principles on which these activities are based, the German Government consults with the other industrialised countries, in particular through the OECD Development Assistance Committee (DAC).

2. Basic elements of EIA in German Development Cooperation

The "Basic Principles of Federal Government's Development Policy" makes EIA compulsory for official German development projects. EIA has also been institutionalised through a corresponding BMZ administrative directive, and operationalised through extensive working materials geared into identifying and assessing environmental impact (Environmental Manual etc.)

An EIA comprises the identification, description and evaluation of a project's impacts on

1. humans, plants and animals, the soil, the water, the air, the climate and the landscape, including the any interactions,
2. cultural and material assets.

EIA is used as a tool to help plan projects and take decisions on their eligibility for promotion. The key objective of EIA is to plan and implement projects such that negative environmental impacts are either prevented, or reduced to an acceptable level.

Environmental impact assessments are performed with public involvement.

In this context EIA is

- ⇒ an instrument to identify direct and indirect effects of a project on the environment (individuals, flora fauna, soil, water air climate and landscape, as well as cultural assets) and to identify those projects which are ecologically non-acceptable
- ⇒ to implement sustainable development by searching for ecological sound project options / alternatives during project implementation

- ⇒ to improve ecological sound project steering by monitoring and documenting ecological project impacts
 - ⇒ raise awareness and support capacity building in the field of environmental issues in the partner countries
 - ⇒ an instrument to fulfil verifiable way the implementation of German policy goals.
- Participation is a core element of the EIA procedure.

The EIA consists of following steps:

1. Screening

During screening the project's environmental impact is assessed and it is decided whether or not further investigation is called for.

2. Scoping

The scope of the environmental impact appraisal - within which specific environmental issues, areas involved and depth of examination are defined - is determined, as are technical requirements and organisational configuration, including the possible participation of regional environmental institutions.

3. Appraisal of environmental impact

This appraisal takes place within the scope of the traditional project appraisal. It records the status quo and anticipated environmental impact and constitutes a technical and systematic review of the project.

Discussion of alternatives: Partner country decision-makers - together with the experts in charge of the appraisal - discuss and decide among the various options and draw up a plan.

4. Implementation of the project

Implementation of planned activities, environmental monitoring and documentation, reporting, evaluation of project impacts.

3. The Environmental Impact Assessment (EIA) in German-Technical Development Cooperation (implemented by projects supported by GTZ)

Project Cycle Management (PCM) - a tool for participation:

EIA is understood as an ongoing process throughout the project cycle. EIA is an integral component of the planning and implementation procedure, agreed upon by the Federal Ministry for Economic Cooperation (BMZ). The core element of this procedure is what we call Project Cycle Management (PCM) which is based on the methodology of "objectives-oriented project planning" (ZOPP).

The guiding principle of ZOPP is its interdisciplinary team approach, in which problems are conceived of in terms of cause-effect and means-ends relationships. the ZOPP method is used as a planning and steering instrument in the various project phases.

1. Project selection negotiated with partner country (government negotiations)

Government negotiations are guided by: the principles of sustainable development specially supporting of projects dealing with environment and resource protection and special support to structural projects / implementation of international conventions (e.g. Climatic change; protection of tropical forests etc.)
2. Project idea

When a request for a project has been submitted, a participation analysis and a problem analysis are carried out in the first round of ZOPP I, and an initial project approach is drawn up with alternatives. The intention at this stage is to determine whether the project being investigated is both sustainable and eligible for appraisal. At the same time, and to the extend possible, conclusions are drawn as to the ecological significance of the project.
3. Screening of documents

Environmental screening:
If at this stage the anticipated environmental effects on the project are found to be minimal, a full environmental study needs not to be carried out. Should the impacts be considered to be significant, or if they are unknown or of such a complex nature that no precise prediction can be made, the preparation of a separate environmental study may be proposed at this point. The results of this planning session are incorporated into the preliminary report and the project appraisal offer.
4. Preliminary report (to BMZ)

This report summarises the findings and asks for permission to continue with the project appraisal
5. BMZ commission on appraisal
6. Planning workshop (ZOPP II)

Environmental scoping:
On the basis of the appraisal order placed by the BMZ the Terms of Reference are then drawn up, and the key areas of the appraisal are discussed in greater detail in a second round of ZOPP (ZOPP II). At this stage the appraisers are familiarised with their Terms of Reference.
7. Project appraisal and planning workshop with the partners

Appraisal of environmental impacts:
Following that the project appraisal takes place in the partner country.

Discussion of alternatives:
On completion of this appraisal, the project concept is elaborated in the partner country on a joint basis with the local decision-making authorities and the planned project executing agency, taking into account the data and information gathered by the appraisers (ZOPP III). Depending on circumstances, it may be that the need for an additional environmental study is identified and proposed at this point.

8. Appraisal report The results of the project appraisal (including the results of the environmental study, where such has been carried out) are then incorporated into so so-called appraisal report and into the project implementation offer to be submitted to the BMZ. The offer to the BMZ provides a detailed report on the planned activities, their results, on possible alternative approaches, and on the project impacts to be anticipated. This also includes the anticipated environmental impacts, the planned protective measures and the monitoring and evaluation (M+E) measures required in the light of environmental considerations
9. BMZ decision -
implementation order
10. Implementation
planning On the commencement of the project, the local and German personnel, along with other institutions and, where possible, the target groups (or their representatives), draw up the detailed implementation plans in a planning session (ZOPP IV). These plans are then condensed and produced in the form of a project planning matrix. This is designed to give precise details on the participation analysis and the indicators of the results and project purpose having been achieved. The revised and updated ZOPP plans serve as the basis for preparation of the plan of operation, and for planning of the monitoring and evaluation measures.
11. Project
implementation and
monitoring
(planning
adjustment) According to the plan of operation activities are carried out. Environmental protection measures are incorporated elements of the plan of operation. In order to that experience and regarding environmental impacts a project monitoring system eventually needs to be established. Project-related "environmental documentation" is required.
12. Project reporting and
evaluation A project reporting system, based on the plan of operation, provides information to the project management and serves as project steering instrument. At the same time, regular reports on the project progress are provided to BMZ. As the project progresses, plan modifications may be made in further rounds of ZOPP. These may be occasioned by necessary conceptual adjustments, which might for example be the result of project monitoring or evaluation measures.
13. Final report

4. Environmental categories - the result of EIA

The key concept when deciding on a project's eligibility for promotion or steering its implementation is maximum transparency, also with respect to the ecological aspects. For administrative purposes, each project is classified into one of the "environmental categories" ranging from E0 to E4, in accordance with the criteria introduced in 1988. The "E category" indicates the project's level of negative environmental impact, and the mitigation action required. The categories are defined as follows:

- E0** no significant negative environmental impacts
- E1** negative environmental impacts possible or anticipated; impacts tolerable; no special environmental protection measures required
- E2** negative environmental impacts anticipated; after introduction of environmental protection measures, impacts tolerable; environmental protection measures and monitoring required; low risk of unforeseen impacts and / or improper implementation or operation of the measures
- E3** negative environmental impacts anticipated; after introduction of environmental protection measures, impacts tolerable; environmental protection measures and intensive monitoring required, increased risk of unforeseen impacts and / or improper implementation or operation of the measures
- E4** negative environmental impacts anticipated; impacts ecologically intolerable.

The E category does not constitute a rating of the need for a given project or of its quality. Instead, it is designed to serve as an indicator of the project's environmental significance, and to facilitate cross-section studies, for example, by identifying projects involving a potential environmental risk / need for action.

Where - as is often the case - a project entails a number of different negative environmental impacts / risks, its overall classification is based on the most serious potential impact.

Given that EIA is a process within the project cycle, the E category can in principle be changed; i.e. should a project review establish that the environmental risks have changed, the project can be reclassified.

5. The "ER-label" as an administrative tool to identify projects dealing with environment and resource protection, in order to monitor the implementation of German development policy

The "ER-label" (ER = environment and resource protection) is an administrative tool applied to help keep check on the proportion of official development projects dealing with environment and resource protection. "ER" is a label attached to projects which aim primarily and directly to protect and conserve the human environment and natural resources, e.g. institutional development in environment, sustainable natural resource management (for instance with respect to water, soil, forests, wildlife, fish), land use planning, desertification control, saving fuelwood, biological pest management, solid waste management and sanitation, air quality control, natural conservation and the support of the implementation of International Conventions.

Since the ER label is derived from the project objectives, but by no means answers all the questions pertaining to possible environmental burdens, ER projects also have to undergo an EIA, and be classified into an E category.

6. Tools

Environmental Handbook:

One important tool for EIA in development cooperation is the three-volume BMZ Environmental Manual. This manual is available in German, English and Spanish language and soon will be provided to the INTERNET.

Volumes I and II of the Environmental Manual contain around sixty catalogues providing an overview of possible impacts on the natural and social environment, and well as known environmental measures, for the most important areas of development cooperation. They have been drawn up such that no further tools are needed initially, although references to literature are provided. The recommendations for analysis and assessments of Environmental impacts contain in the catalogues are complemented by Volume III, which contains a compilation of numerous environmental parameters and related standards of various countries.

Environmental documentation:

Over the last few years GTZ has built up an environmental documentation unit with a wealth of region- and sector-specific environmental information. This unit offers a solid basis for preparing and evaluating project appraisals.

7. Weaknesses in the application and development of EIA

1997 our Ministry BMZ has carried out a cross-sectoral environmental evaluation of projects. As main weaknesses in the application of the EIA process following aspects were identified:

- * missing guidance for strategic environmental assessment and for complex regional development projects
- * correct classification of projects
- * indirect impacts are often difficult to assess.

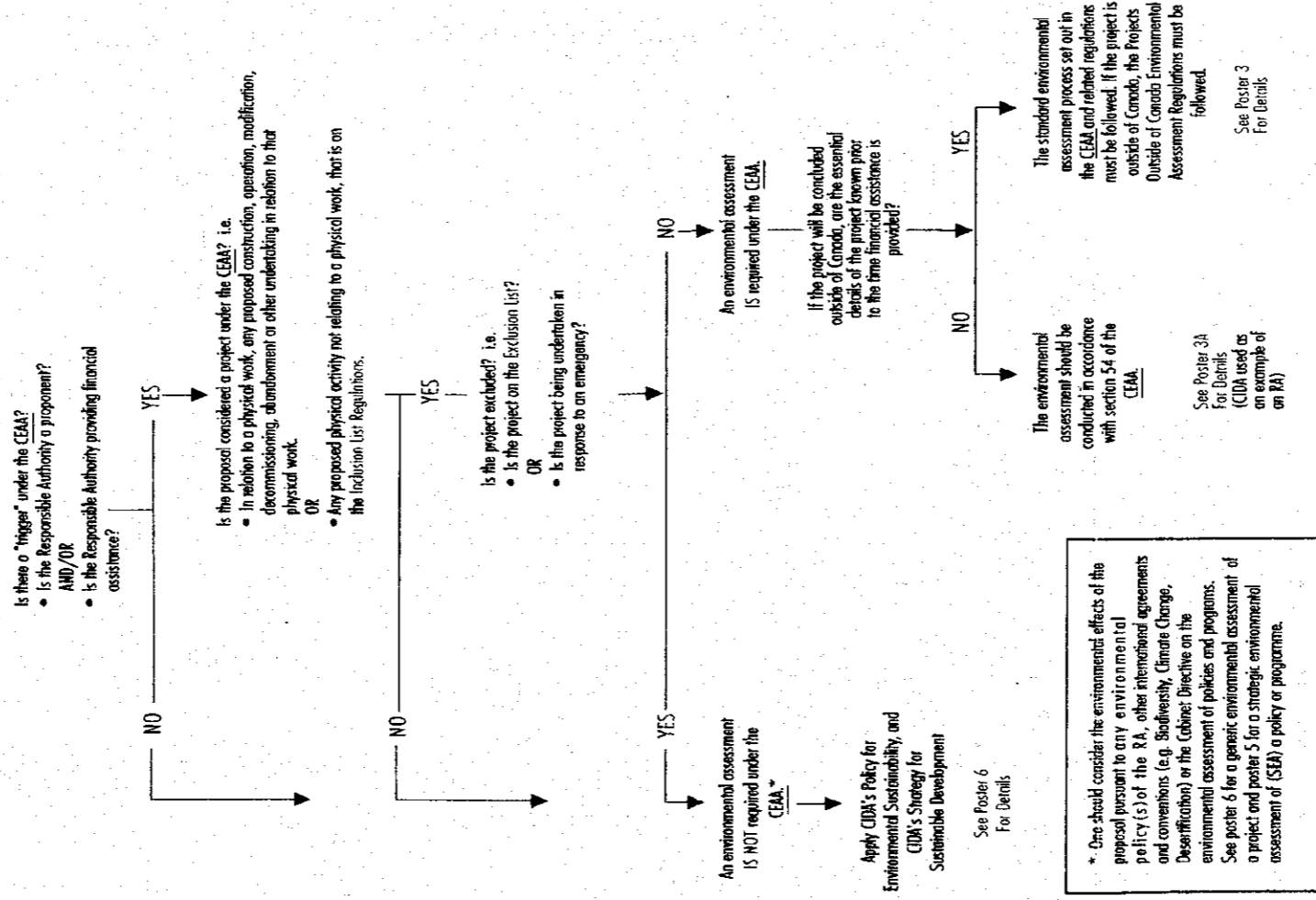


Key Environmental Assessment Decisions for a CIDA Officer

1. To determine whether an environmental assessment of CIDA's initiative is required under CEAA, refer to poster 1A .
2. If an environmental assessment is required under CEAA and the project is inside Canada or on federal lands, refer to poster 2.
3. If an environmental assessment is required under CEAA and the project is outside Canada and not on federal lands, refer to poster 3, IF THE ESSENTIAL DETAILS ARE KNOWN.
4. If an environmental assessment is required under CEAA and the project is outside Canada and not on federal lands, refer to poster 3A, IF THE ESSENTIAL DETAILS ARE NOT KNOWN.
5. If an environmental assessment was conducted under CEAA, were the appropriate records placed on the Public Registry? Refer to poster 4.
6. Is a policy or programme being developed? CEAA does not apply, but the policy or programme could have significant environmental effects. Refer to poster 5.
7. If an environmental assessment is not required by CEAA and CIDA's initiative is not a policy or programme, has the need for a generic environmental assessment been considered? Refer to poster 6.
8. Does the project approval process respect all pertinent regulatory requirements in the recipient country, including any environmental assessment requirements?

An Outline of the Canadian Environmental Assessment Act (CEAA)

Does the Canadian Environmental Assessment Act (CEAA) apply to the proposal?



* One should consider the environmental effects of the proposal pursuant to any environmental policy(s) of the RA, other international agreements and conventions (e.g. Biodiversity, Climate Change, Desertification) or the Cabinet Directive on the environmental assessment of policies and programs. See poster 6 for a generic environmental assessment of a project and poster 5 for a strategic environmental assessment of (SEA) a policy or programme.

Key Definitions

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

Environment means the components of the Earth, and includes
 a) land, water, air, including all layers of the atmosphere,
 b) of organic and inorganic matter, living organisms, and
 c) the interacting natural systems that include components referred to in para. (a) and (b).

Environmental assessment means, in respect of a project, an assessment of the environmental effects of the project that is conducted in accordance with CEAA and the regulations.

Environmental effect means, in respect of a project,

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 (whether any such changes occur within or outside Canada).

Follow-up Program means, a program for

a) verifying the accuracy of the environmental assessment of a project, and
 b) determining the effectiveness of any measures taken to mitigate the adverse effects of the project.

Project means

a) in relation to a physical work, any proposed construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work, or
 b) any proposed physical activity not relating to a physical work that is set out in the Inclusion List Regulations.

Responsible Authority (RA) in relation to a project, means a federal authority that is required to ensure that an environmental assessment of the project is conducted.

Key Regulations

The Inclusion List Regulation identifies those physical activities, or classes of physical activities not in relation to a physical work which require an environmental assessment.

The Exclusion List Regulation exempts certain projects or classes of projects from the application of the CEAA because the environmental effects of the project are known to be insignificant.

The Comprehensive Study List Regulation includes projects or classes of projects which are considered likely to have significant adverse environmental effects before site-specific mitigation, and therefore require a more detailed environmental assessment of the outset.

The Law List Regulation specifies those statutory and regulatory provisions for which environmental assessment apply.

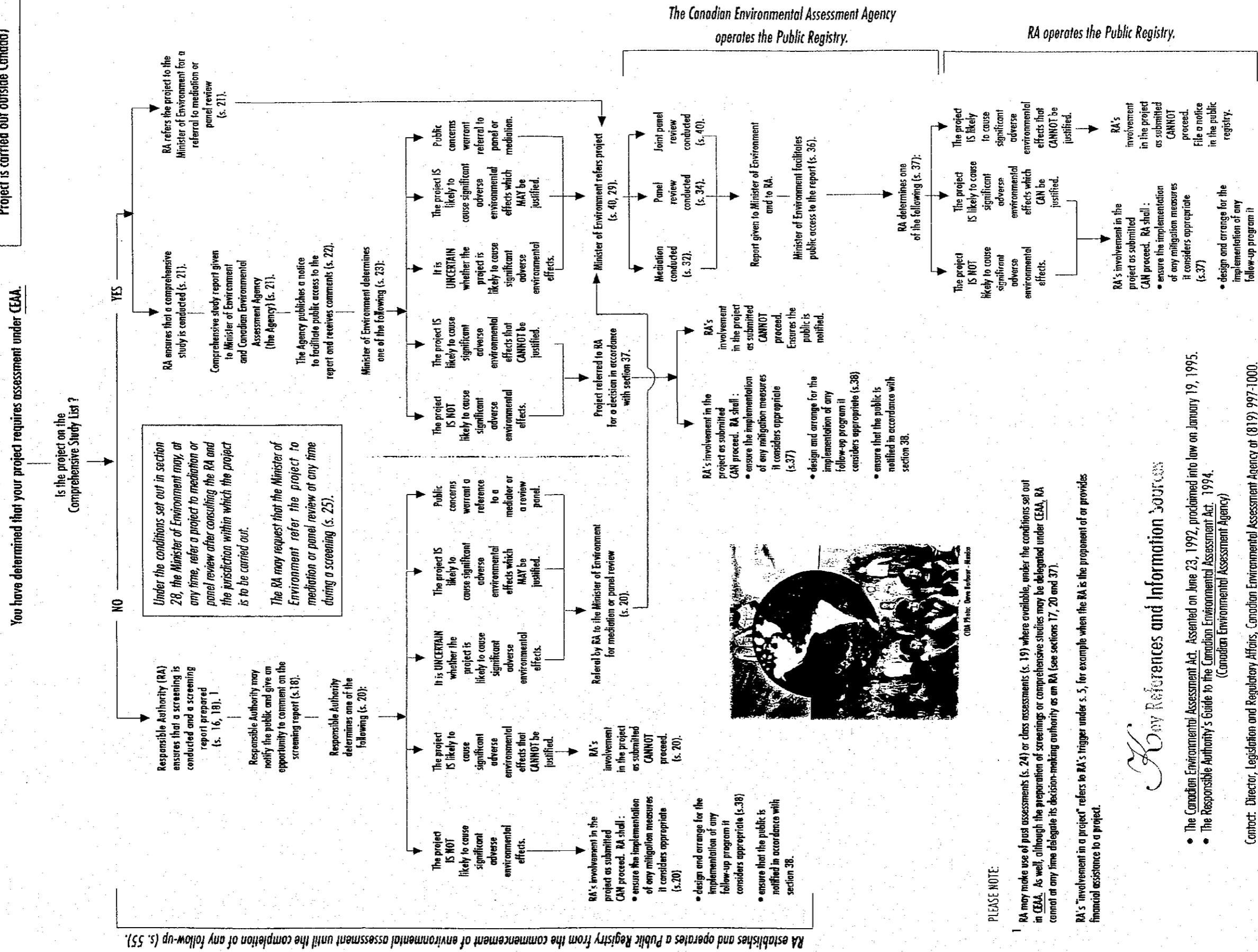
The Projects Outside Canada Environmental Assessment Regulations specifies the environmental assessment process to be followed for all projects subject to CEAA that occur outside of Canada and any federal lands.



CEA Photo: Dave Harbour - Mexico

Environmental Assessment Process Under CEAA for Projects inside Canada or on Federal Lands

(See Poster 3 and 3A for Explanation of the Environmental Assessment Process where the Project is carried out outside Canada)



PLEASE NOTE:

¹ RA may make use of past assessments (s. 24) or class assessments (s. 19) where available, under the conditions set out in CEAA. As well, although the preparation of screenings or comprehensive studies may be delegated under CEAA, RA cannot at any time delegate its decision-making authority as an RA (see sections 17, 20 and 37).

RA's "involvement in a project" refers to RA's trigger under s. 5, for example when the RA is the proponent of or provides financial assistance to a project.

Key References and Information Sources

- The Canadian Environmental Assessment Act. Assented on June 23, 1992, proclaimed into law on January 19, 1995.
- The Responsible Authority's Guide to the Canadian Environmental Assessment Act, 1994. (Canadian Environmental Assessment Agency)

Contact: Director, Legislation and Regulatory Affairs, Canadian Environmental Assessment Agency at (819) 997-1000.

Environmental Assessment Process Under CEAA and the Projects Outside of Canada Environmental Assessment Regulations (POC)

Where the Essential Details of the Project to be funded by CIDA are known

You have determined that your project requires assessment under CEAA.

(See Poster 3A if the essential details of the project will not be known before CIDA must make decision to fund)

If the project will be carried out outside Canada and outside any federal lands, POC will apply.

Under the conditions set out in section 28 of POC, the Minister of Environment may, at any time, refer a project to mediation or joint panel review or Advisory Committee after consulting CIDA and the jurisdiction within which the project is to be carried out.
CIDA may request that the Minister of Environment refer the project to mediation, or joint panel review or Advisory Committee at any time (s. 25, POC)

CIDA establishes and operates a Public Registry from the commencement of environmental assessment until the completion of any follow-up (s. 55).

CIDA ensures that a screening is conducted and a screening report prepared (s. 16, 18 POC)

CIDA may notify the public and give an opportunity to comment on the screening report (s. 18 POC)

CIDA determines one of the following (s. 20 POC)

The project IS NOT likely to cause significant adverse environmental effects.

The project IS likely to cause significant adverse environmental effects which CANNOT be justified.

The project IS UNCERTAIN whether the project is likely to cause significant adverse environmental effects.

The project IS likely to cause significant adverse environmental effects which CAN be justified.

CIDA's involvement in the project as submitted CAN proceed. CIDA shall: ensure the implementation of any mitigation measures it considers appropriate (s. 20 POC); design and arrange for the implementation of any follow-up program it considers appropriate (s. 38 POC); ensure that the public is notified in accordance with (s. 38 POC).

CIDA's involvement in the project as submitted CANNOT proceed. (s. 20 POC)

Request by CIDA (in consultation first with respective Branch VP of Policy Branch and President) to the Minister of Environment for mediation, panel review or advisory committee (s. 20 POC).



CIDA Photo: Steve Barber - Media

PLEASE NOTE:

CIDA may make use of past assessments (s. 24) or (class assessments (s. 19) where available, under the conditions set out in CEAA. As well, although the preparation of screenings may be delegated under CEAA, CIDA cannot at any time delegate its decision-making (see sections 17, 20 and 37).

CIDA's "involvement in a project" refers to CIDA's trigger under s. 5, for example when CIDA is the proponent of or provides financial assistance to a project.

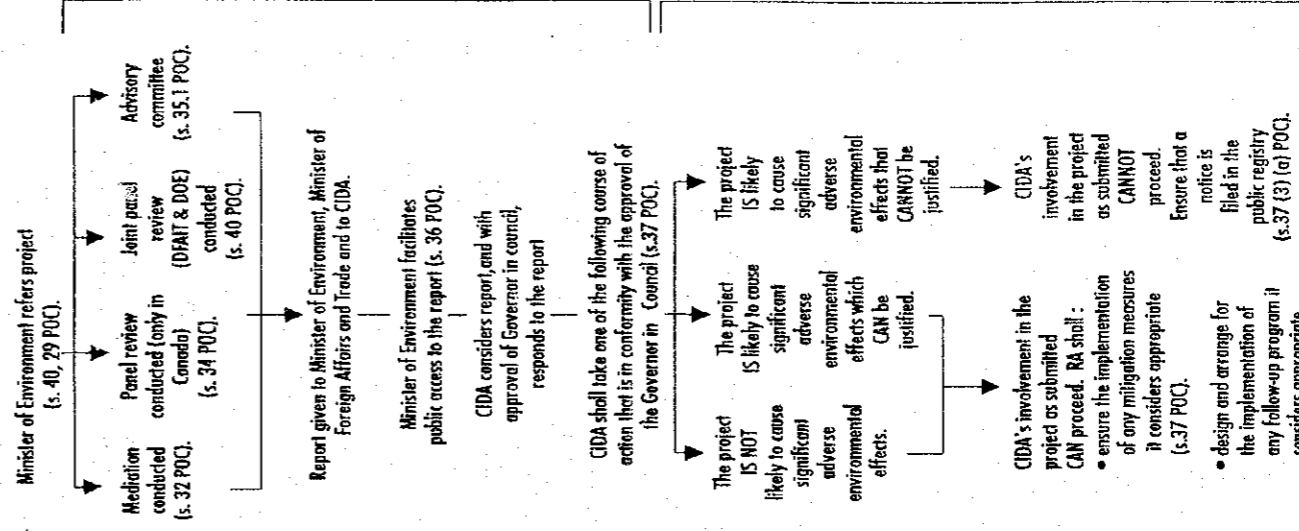
Key References and Information Sources

- The Canadian Environmental Assessment Act: Assented on June 23, 1992, proclaimed into law on January 19, 1995.
- The Project Outside of Canada Environmental Assessment Regulations, November 7, 1996
- The Responsible Authority's Guide to the Canadian Environmental Assessment Act, 1994. (Canadian Environmental Assessment Agency)

Contact: Chief, Environmental Assessment and Compliance Unit, CIDA at (819) 994-7087
Director, Legislation and Regulatory Affairs, Canadian Environmental Assessment Agency at (819) 997-1000.

The Canadian Environmental Assessment Agency operates the Public Registry.

CIDA operates the Public Registry.



Assessment of the Environmental Effects Process of Projects to be carried Outside of Canada

Where the Essential Details of the Project¹ to be funded by CIDA are not known

Section 54(2) of the CEAA applies where:

- a project is to be carried out both outside Canada and outside federal lands, and
- the essential details of the projects are not known at the time of signing the funding agreement, and
- CIDA WILL NOT HAVE A DECISION-MAKING ROLE (I.E. - AS A MEMBER OF A COMMITTEE WHICH WILL SELECT AND APPROVE FUNDING FOR SUB-PROJECTS) AT A LATER DATE WHEN THE ESSENTIAL DETAILS OF THE PROJECT WILL BE KNOWN.

In order to comply with section 54(2), CIDA shall ensure that:

- 1.) the agreement or arrangement provides for the assessment of the environmental effects of those projects and that the assessment will be carried out as early as practicable in the planning stages of those projects, before irrevocable decisions are made, in accordance with:
 - (a) CEAA and the regulations; or
 - (b) a process for the assessment of the environmental effects of projects that is consistent² with the requirements of this Act and is in effect in the foreign state where the projects are to be carried out; or
 - (c) an alternative environmental assessment process, or a variation of the CEAA process or a variation of the foreign process, if to do so is practicable³ under the circumstances.
- 2.) the assessment of environmental effects is conducted and a decision is made in accordance with the process outlined in the agreement.

The Funding Agreement will require that a copy of the assessment of environmental effects report and the decision are forwarded to CIDA.

Section 54(3) of the CEAA applies where:

- the project details are not known at the time the funding agreement is signed, and
- CIDA WILL HAVE A DECISION-MAKING ROLE (I.E. - AS A MEMBER OF A COMMITTEE WHICH WILL APPROVE FUNDING FOR SUB-PROJECTS) AT A LATER DATE WHEN THE ESSENTIAL DETAILS OF THE PROJECT WILL BE KNOWN.

In order to comply with section 54(3), CIDA shall ensure that:

- 1.) an environmental assessment is conducted in accordance with CEAA at the later date once the details of the project become known and before a decision is taken by CIDA to fund the project.

¹ Under the CEAA, project means in relation to a physical work, any proposed construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work or any proposed physical activity not relating to a physical work that is prescribed pursuant to regulations made under the Inclusion List Regulation.

² Consult with the Environmental Assessment and Compliance Unit, Policy Branch at 994-7087 or Legal Services at 997-7858 to determine if an environmental assessment process is "consistent with the requirements of the CEAA".

³ The CIDA Project Officer is advised to provide a written analysis for choosing "not practicable" to the respective Vice-President with a copy for the Vice-President of Policy Branch.

CIDA & the Public Registries Required by the Canadian Environmental Assessment Act (CEAA)

The purpose of the public registry is to ensure convenient public access to information related to a project's environmental assessment under CEAA. If CIDA is conducting an environmental assessment it must establish and maintain a public registry of the records related to the assessment. The CIDA officer must forward all records produced, collected, or submitted in respect of the project environmental assessment (including the environmental assessment forms and the list of criteria for inclusion in a public registry), to the Coordinator - Public Registries, Environmental Assessment and Compliance Unit. Since the registry can only contain records accessible by the public, a review must be made by CIDA for each record prior to placing it in a public registry (Section 55).

The Coordinator of the Public Registries will determine whether the record(s) or part of it would have been disclosed to the public if a request had been made pursuant to the Access to Information Act at the time the record(s) come under the control of CIDA.

Conditions under the CEAA (Subsection 55(1))

CIDA must establish and operate a public registry for each project for which an environmental assessment is conducted under the CEAA and the regulations, regardless of whether the project undergoes a screening, panel review, joint panel review, mediation or advisory committee to ensure convenient public access to records relating to the environmental assessment.

However, a public registry is not maintained in the cases where there is not a project as defined under the CEAA; where an environmental assessment of a project is not required; for instance if the project is described in the Exclusion List regulation or if the project is to be carried out in response to an emergency and carrying out the project is in the interest of preventing damage to property or the environment or is in the interest of public health or safety; and if another environmental assessment process consistent with the CEAA or a third process acceptable to CIDA is used, pursuant to subsection 54(2) - International agreement or arrangement of the Act.

Who has obligations and for what?

For a screening:

CIDA maintains a public registry from the commencement of the environmental assessment until the completion of any follow-up program, in respect of the project. (paragraph 55(2)a)

For a mediation, panel or joint panel review or advisory committee:

The CEA Agency maintains a public registry from the appointment of the mediator, members of the review panel or advisory committee until the report of the mediator, panel review or advisory committee is submitted to the Minister of the Environment and CIDA. (paragraph 55(2)b)

Before giving any approval to a project, you must indicate in AIDIS and on the Project Approval Document (PAD) if an environmental assessment is required under the CEAA and if the CEAA requirements have been met.

You have determined that the proposed project is a project as defined under the CEAA and requires an environmental assessment under the Act and indicated this requirement in AIDIS. You must forward the Preliminary Environmental Assessment Form (CEAA 1519-1) as well as the concept paper cover sheet or equivalent to the Public Registries Coordinator who will create a public registry for the project. Throughout the course of the Environmental Assessment, all records related to the project's environmental assessment including the applicable CIDA Environmental Assessment Forms (1519-1 to 4) or equivalent, the PAD cover sheet and the screening reports must be forwarded to the Public Registries Coordinator.

For each environmental assessment under CEAA, a public registry consists of the following records set out under Subsections 55(3) and (4) of the CEAA:

1. All records produced, collected or submitted with respect to the environmental assessment of the project, including any report relating to the environmental assessment, comments filed by the public in relation to the environmental assessment, records prepared in relation to the design and implementation of a follow-up program, records produced as a result of the implementation of a follow-up program, Terms of Reference for a mediation or a panel review and any documents requiring mitigation measures to be implemented (subsection 55(3)).
2. Records referred to in Subsection 55(3) must be included if they fall into any of the following categories under Subsection 55(4):
 - a) records that have been made publicly available in carrying out the environmental assessment pursuant to the Act and any additional records made publicly available (paragraph 55(4)(c));
 - b) records or parts of records that would be disclosed under the Access to Information Act (paragraph 55(4)(b));
 - c) records or parts of records the disclosure of which would be in the public interest because it is required in order for the public to participate effectively, except for records or parts of records containing third party information (paragraph 55(4)(c)).

Third party, in respect of a request for access to a record under the Access to Information Act, means any person, group of persons or organization other than the person that made the request or a government institution.

Third party information, as defined pursuant to the Canadian Environmental Assessment Act, means:

- (a) trade secrets of a third party;
- (b) financial, commercial, scientific or technical information that is confidential information supplied to a government institution by a third party and is treated consistently in a confidential manner by the third party;
- (c) information the disclosure of which could reasonably be expected to result in material financial loss or gain to, or could reasonably be expected to prejudice the competitive position of a third party; or
- (d) information the disclosure of which could reasonably be expected to interfere with contractual or other negotiations of a third party.

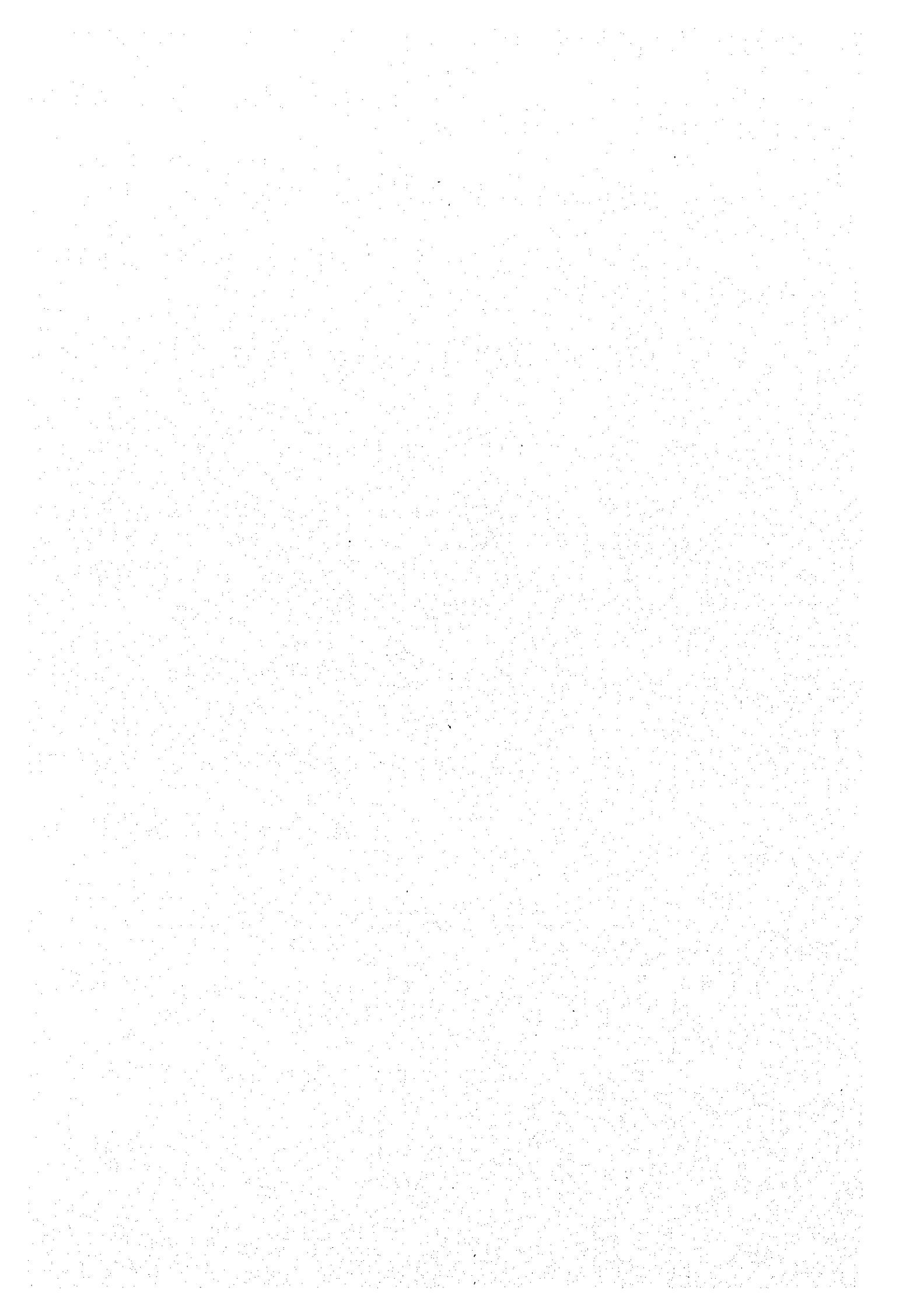


CIDA Photo: Peter Bennett

Key References and Information Sources

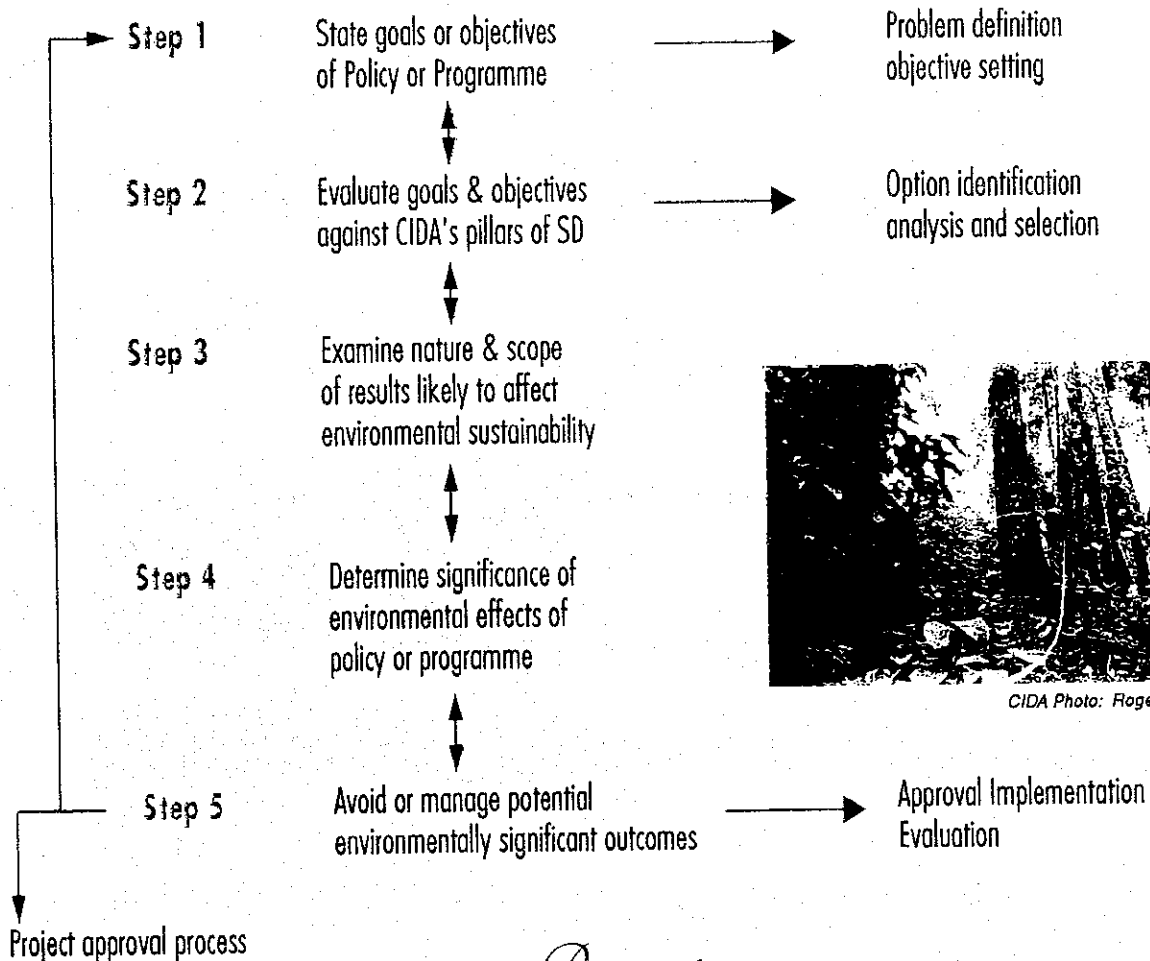
- The Canadian Environmental Assessment Act. Assented on June 23, 1992, proclaimed into law on January 19, 1995.
- The Reference Guide for the Canadian Environmental Assessment Act - the Public Registry, 1994 (Canadian Environmental Assessment Agency)
- CIDA's Procedural Guide for the Public Registries, 1995.
- CIDA's User's Guide to the Public Registries, 1995.

Contact: Chief, Environmental Assessment and Compliance Unit, Policy Branch CIDA at (819) 994-7087.
Director, Legislation and Regulatory Affairs, Canadian Environmental Assessment Agency at (819) 997-1000





Strategic Environmental Assessment (SEA) of CIDA Policy or Programmes



CIDA Photo: Roger Lemoyne

Reasons for SEA in CIDA

Rationale

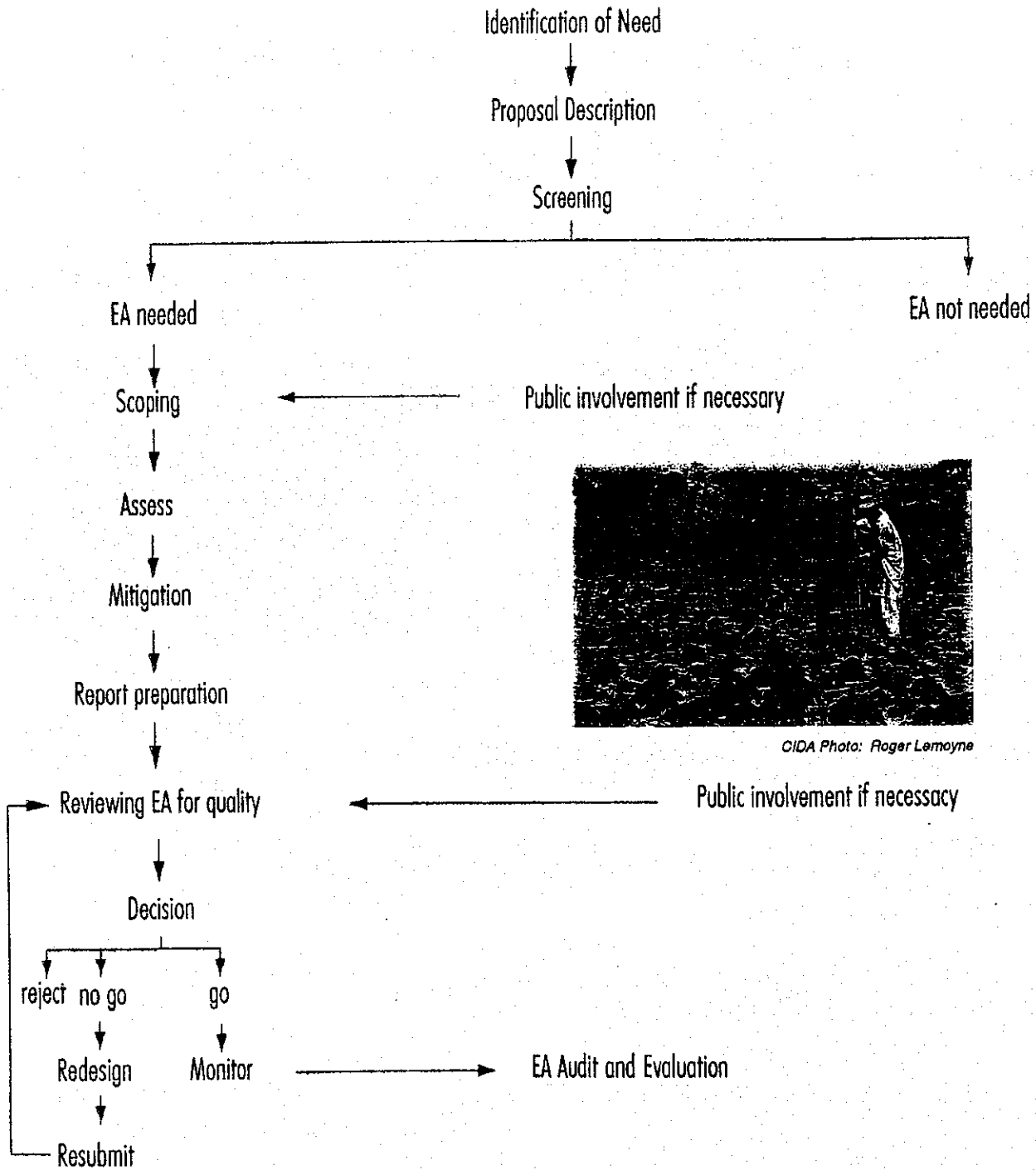
1. Policy for Environmental Sustainability
2. Cabinet Directive on EA of Policy and Programme
3. International Convention Agreements and Policies
4. CIDA's Sustainable Development Strategy

Definition: SEA – Any defined process by which decision-makers take account of potential environmental impacts during formulation or revision of plans, programs or policies as related to development cooperation activities (OECD, 1996)

Reference: Integrating environmental considerations into CIDA Policies & Programmes (Draft, CIDA, 1996)



Generic Environmental Assessment Process



January 2000

CIDA MINERALS AND METALS SECTOR PROJECTS

A) CIDA CANADIAN PARTNERSHIP BRANCH

The CIDA Canadian Partnership Branch projects are contribution agreements with Canadian partners to cost share their developmental activities (i.e. Environment, Gender Equity and Training issues) for their studies and projects in developing countries.

1) The Industrial Cooperation (Investment, Professional Services and Basic Private Infrastructure) Program is a CIDA cost sharing program to support Canadian private sector initiatives in developing countries for the development of the private sector and infrastructure services in these countries. Projects are submitted by the Canadian private companies to CIDA. Project information is considered to be commercially confidential meaning that the Canadian promoter must accept that information be released to a third party for CIDA to provide some detailed information on these initiatives. CIDA does not get involved in projects at the exploration phase but could consider being involved at the feasibility and development phases.

2) Institutional Cooperation and Non-Governmental Organisation Programs are also cost sharing programs with Institutional and Non-Governmental Organisations for their initiatives in developing countries.

Following is a description, as examples, of the non-exhaustive CIDA-sponsored mining sector related projects under these programs with the amount of the CIDA contribution and the recipient institution/organisation.

Canadian Environmental Law Association's Building Capacity in Mining Region project in Peru is a CIDA \$300,000 3-year contribution for exchange visits of environmentalists and community representatives to reduce negative impact on the environment, health and social life of communities depending on mining and processing in La Oroya, Cusco .

CESO the Canadian Executive Services Overseas has provided some Canadian expertise to developing countries, i.e. Bolivia and Peru, requests related to their minerals and metals industry.

Université du Québec en Abitibi-Témiscamingue recevra de l'ACDI 749 566\$ pour un projet qui a débuté en 1998 pour mettre en place à l'Université de Ouagadougou au Burkina Faso un savoir-faire dans le domaine de gestion de projets miniers surtout en ce qui a trait à l'environnement et en santé et sécurité.

B) CIDA BILATERAL BRANCHES

1) Americas Branch

1. **Mining, Hydrocarbons and Environment Project:** The Canadian Energy Research Institute is helping **Colombian** institutions improve policy planning and establish sound environmental regulation and management of the energy and mineral and metal industries. CIDA contribution \$11.3 million.
2. **Multinational Andean Project:** The Geological Survey of Canada is working with the national geo-science institutions of **Argentina, Bolivia, Chile, and Peru** to promote, in remote and disadvantaged border regions, the use of compatible geo-science methods of data gathering, analysis, and dissemination, and to attract investment in mineral resources and infrastructure development. CIDA contribution \$4.8 million.
3. **Mining Project in Guyana:** The Canada Centre for Energy and Minerals Technology (CANMET) is helping to strengthen the capacity in environmental management of the mineral industry in **Guyana**. CIDA contribution \$3.5 million.
4. **Peruvian Minerals and Metals Industry Public Sector Reform Project:** The British Columbia Ministry of Mines and Energy is helping to strengthen public sector efficiency in the administration of Peru's health, safety, and environmental legislation. CIDA contribution \$4.5 million.
5. **International Centre for Training and Technology Transfer in the Mineral Industry:** The Association of Canadian Community Colleges (ACCC) is helping **Chile's** University of Atacama to establish this centre of excellence for Chile, Argentina, Bolivia, and Peru, which will promote greater use of environmental, and health and safety practices. CIDA's contribution of \$3.3 million has leveraged \$12.8 million from Chilean sources.
6. **Reform of the Mineral Industry and the Environment in Bolivia:** Since 1996 the Quebec Ministry of Natural Resources has been working with Bolivian public institutions to help improve their efficiency and effectiveness in the administration of the country's mineral resources and the environment. CIDA contribution \$2.5 million.
7. **Project for Sustainable Development in the Minerals Sector (recently completed):** the Geological Survey of Canada and the Canada Centre for Mineral and Energy Technology have been working with their **Brazilian** counterparts to promote sustainable development. CIDA contribution \$1.5 million.
8. **Technology Transfer in the Minerals Sector: Mine Rehabilitation Program:** Supported under CIDA's Canada-Brazil Transfer Fund, the Canada Centre for Mineral and Energy Technology (CANMET) and the Brazilian Centre for Mineral Technology (CETEM) aim to establish good mine site rehabilitation practices in Brazil. The project has established a Multi-Stakeholder Advisory Committee to bring together major stakeholders involved in the Brazilian minerals sector. CIDA contribution \$1 million.
9. **Mining Policy Seminars Project:** Natural Resources Canada will support workshops and seminars for the Ministries of Mining throughout Latin America and the Caribbean to

promote the development of policies for sustainable development of minerals and metals.
CIDA contribution \$800,000.

10. **Technology Transfer in the Minerals Sector** (completed): Supported under CIDA's Canada-Southern Cone Technology Transfer Fund, the Canada Centre for Mineral and Energy Technology (CANMET) worked with the Instituto de Tecnologia Minera de Argentina (INTEMIN) to strengthen the regulatory framework of the Argentinean mining industry by drawing on Canadian models. CIDA contribution \$700,000.
11. **Peru-Canada Equipment Monetization Facility Project**: This is a \$35 million line of credit to Peru to purchase Canadian mining, oil and gas, and telecommunication equipment. The purchases in turn generate counterpart funds for the **Peru-Canada Fund** which supports local initiatives to reduce poverty and stimulate growth in the Peruvian economy.
12. **Mineral Policy Research Initiative**: The International Development Research Centre (IDRC) is supporting research initiatives to develop models of multi-stakeholder consultation and participation in the development of mineral resources. IDRC contribution \$3.2 million, CIDA contribution \$200,000.

2) Africa and Middle East Branch

1. **Technical Assistance to the Geological Survey of Botswana** was a second phase CIDA \$4.34 million grant approved in 1989 for Memorial University of Newfoundland to localise the Geophysics Division of the Botswana Geological Survey to develop the country's groundwater and mineral resources, this second phase has been very successful to find badly needed underground water sources for farming activities. This project terminated in 1999.
2. **Mining and Energy Policy Project in South Africa** is a CIDA \$3 million approved in 1995 for the Minerals and Energy Policy Centre located in South Africa to empower stakeholders, particularly disadvantaged black community ones and to build their capacity to engage in a policy development dialogue in a manner which will promote sustainability, reconciliation, consensus and more equity prosperity in South Africa's economic development of its mining sector. This project will terminate in year 2000.
3. **The Mining Titles and the Environment project** is a \$3.5 million 3-year project being implemented by the firm INTERICA International Inc of Brossard, Quebec. The project implementation started in January 1999 for the setting up of an efficient and effective mining titles system within this ministry with means for the Ministry to recover some costs for the services provided and to enforce the recently approved Environmental Act mostly in terms of the rehabilitation/reclamation and decontamination of mined out and orphaned/abandoned sites.
4. **Environmental Management in the Mineral Sector of Zambia**, CANMET of NRCan has been selected in 1999 to design and implement a \$3.5 million 3-year project to improve the environmental regulation enforcement in the country's minerals and metals sector.