# Environmental Aspects in Credit Financed Projects

20 case studies

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Department for Evaluation and Internal Audit

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Sida Evaluation 99/22

Department for Evaluation and Internal Audit

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#### List of abbreviations and definitions

Appraisal phase The period between the credit application and credit decision

BITS Swedish Agency for International Technical and Economic Co-operation.

CV Curriculum Vitae

EIA Environmental Impact Assessment
EIS Environmental Impact Statement

EKN The Swedish Export Credits Guarantee Board

Environmental aspect Element of an organisation's activities, products or services that can

interact with the environment, e.g. emissions to air and water and waste

generation.

Environmental impact Any change to the environment, whether adverse or beneficial, wholly

or partially resulting from an organisation's activities, products or

services.

Evaluation Sida's ex-post assessment of a project

Follow up phase The period after the credit has been granted

SIDA /INEC Department for Infrastructure and Economic Co-operation at Sida

INFO Information Department at Sida

ISO 14 001 International standard for an environmental management system

JUR Division for Legal Services and Procurement Advice at Sida

LFA Logical Framework Approach
MoU Memorandum of Understanding

NATUR Department for Natural Resources and the Environment at Sida

NGO Non-governmental organisation

NIB Nordic Investment Bank

NORAD Norwegian Agency for Development Co-operation

OECD Organisation for Economic Co-operation and Development

RELA Department for Latin America

Request phase The period before the credit application

RRV Swedish National Audit Office SEK Swedish Export Credit Corporation

Sida Swedish International Development Co-operation Agency

Sustainable development A development that does not make environment change for the worse

for the future generations.

Svenska

Naturskyddsföreningen Swedish Society for Nature Conservation

ToR Terms of Reference

UNCED UN Conference on Environment and Development
UTV Department for Evaluation and Internal Audit at Sida

#### **Executive Summary**

#### Scope of work

In 1997 Sida commissioned ÅF to assess how and to what extent environmental aspects have been considered in the different stages – i.e. planning, implementation and follow-up – of credit-financed projects. Based on the assessment, recommendations were to be made on how to develop best practices for the future integration of environmental aspects in such projects.

The work was done by analysing 20 projects, which were selected on the basis of criteria developed in collaboration with Sida. No field assessments or studies have been made, and the entire report is based on Sida file documents and interviews with Sida personnel. In keeping with the Terms of Reference for the study, the main issues for analysis were as follows:

#### Actors involved.

- Effectiveness of the project (environmental goals and aspects in project management).
- Impact and sustainability in relation to the "Fifth Development Objective".
- Specific issues such as the recipient countries' laws and regulations.
- Key factors for success or failure.

In the original Terms of Reference "other donors' practices" were included. In the course of the evaluation it was decided not to analyse this item, since the information obtainable was too generalised to provide important input to the study. At Sida's request, the analysis also included comparison with other development co-operation tools, e.g. untied credits and soft loans, in order to identify any differences and similarities to credit-financed projects.

#### Basic structure of the analysis

According to Sida's Terms of Reference, the projects chosen for evaluation should have been initiated in the time frame 1989 to 1994. The projects should reflect the relative importance of the geographical areas and the societal and industrial sectors (by credit amount) covered by the total number of Sida credits. In the course of the work nine additional projects initiated after 1994 were also included, at Sida's request. Only few of the selected projects were initiated in order to improve environmental conditions, but all projects have resulted in some kind of environmental impact.

The time frame defined for the majority of the projects analysed should be noted, since development of environmental procedures (within Sida and in society in general has been rapid in the 90s). It should also be noted that Sida's environmental guidelines and procedures have developed considerably since 1994. In particular, Sida has recently compiled environmental guidelines ("Riktlinjer för miljökonsekvensbedömningar i utvecklingssamarbetet", Sida 1998). Where appropriate we make references in the text to this compilation. In the analysis, however, we have only considered the guidelines and procedures implemented at the time Sida and BITS handled the projects surveyed.

The file material of the selected projects has been reviewed to analyse the main issues. In order to analyse the two issues "effectiveness of environmental project management" and "environmental impact and sustainability in Sida credit-financed projects", we needed to define references and framework as summarised below:

- The assessment of the environmental management investigates Sida's effectiveness in the environmental
  management of the credit-financed projects studied, i.e. the handling of their environmental aspects. Effectiveness is measured as the extent to which the Sida procedures conformed to requirements based on the international standard for environmental management systems,
  ISO 14001.
- The projects' possible *environmental impact and sustainability* indicate whether the projects are good or bad for the environment; this does not necessarily follow from good or bad environmental management. The fifth development objective and other guiding documents have been used to assess the possible impact and sustainability of the projects. No field assessment has been made of impacts.

In 1997 Sida started to develop an environmental management system. In this report the ISO 14 001 reference was chosen because it represents a well-defined and recognised system for environmental management in general.

#### **Actors involved**

According to our review, the actors with influence in the projects are the buyer, the exporter, the recipient country government and the banks, e.g. the World Bank. In our opinion, Sida has a medium influence. Environmental authorities in the recipient country or in Sweden do not seem to play a significant role in the credit-financed projects according to the documentation, and do not seem to interact with Sida in the project process.

Normally the exporter has the first contact with Sida. Few examples were found where the environmental issues had been considered as a result of the exporter's own initiative, environmental policy or awareness.

In projects where the World Bank is an actor, the Sida management of the project is strongly influenced by the World Bank's environmental procedures and policies. In the case of co-financing, however, there are no clear rules for the assignment of responsibilities in environmental issues.

#### **Environmental goals and aspects in project management**

In order to safeguard the environmental issues in a credit-financed project (or any project), important environmental aspects should be identified, quantified and included in the Agreement governing the project. In the review, we have found that environmental aspects and action programmes are seldom included in the formal agreements for the projects but may exist as side letters and other project documentation. We have not been able to assess the formal significance of this kind of documentation.

Neither have we been able to identify projects where Sida has stated environmental preconditions for the credits. This is valid both for projects where Sida is the sole financing agency and in intermediate or co-financing arrangements.

In the project documentation there is often no clear distinction between the environmental aspects that have been identified and explicit environmental guidelines and/or goals for the project. Such guidelines should be developed even though the project is not driven by environmental considerations. The environmental goals (where defined) are seldom expressed in a quantified manner, thus there is no firm basis to develop mitigation measures and subsequent follow-up.

<sup>&</sup>lt;sup>1</sup> To contribute to the sustainable use of natural resources and protection of the environment.

In most cases involving several actors (e.g. Sida and Sida's experts, the Swedish Government, cofinanciers, exporters and buyers) the responsibility for the establishment of environmental goals and action programmes related to the project has not been defined.

There are few references to existing Sida environmental guiding documents in projects after the merge between Sida and BITS, which may indicate a lack of communication in such matters in the organisation.

## Environmental impact and sustainability in relation to the "Fifth Development Objective"

Sida's overriding environmental objective is the Fifth Development Objective. In order for Sida to use this objective to guide project preparation and planning, it is necessary to translate the objective into operational terms. We have not been able to identify any such attempt by Sida, and the limited number of references to the Swedish Fifth Development Objective found in our review further indicates difficulties in using the objective as guidance in Sida's work.

The recent Sida compilation of environmental guidelines provides this type of guidance and largely answers to the needs indicated above.

Of the 20 projects evaluated, we conclude that there is non-compliance with the Fifth Development Objective in three projects approved during the BITS period. The reason for this conclusion is that the projects are assumed to result in more negative than positive environmental impacts. The projects are a coal-fired power plant, an oil storage facility, and industrial facilities including lead refining and PVC manufacturing.

An assessment of the environmental impact of a project necessitates the existence of an Environmental Impact Assessment (EIA). The EIA need not be comprehensive in the early stages of a project but should identify major issues (if any) and procedures to consider as work continues. In our analysis there were six projects out of twenty where the Sida files contained separate EIA/EIS documents. In the majority of projects an EIA/EIS is included as a subsection in the feasibility or appraisal report. In general, the separate EIA/EIS's tend to be more detailed and comprehensive.

The majority of projects in the survey have been supported by some kind of EIA. There is one case involving environmental sensitive projects (IFCT Phase I) where no assessments have been made of the financier's capability to handle environmental issues. Only about half of the environmental improvements obtained by the projects had been supported by sufficient documentation in the environmental assessments. In almost all projects there were examples of one or more environmental aspects that had not been addressed, which clearly introduces an element of risk in the project.

#### Specific issues including laws and regulations

During the appraisal phase there seems to have been little attention paid to legislation and regulation issues in the projects reviewed. Environmental legislation must be a component of the appraisal report (and of ToR), otherwise this element is liable to be overlooked in project management, with a potential risk of non-compliance of the facilities or results from the project. This also applies to global conventions or treaties where it appears that Sida has not paid sufficient attention to such issues in the assessment and preparation of projects. Global conventions signed by Sweden or the Recipient Country should be considered in the same way as national legal issues.

There are cases in our review where the external expert(s) contracted by Sida were specialised in other fields than environment and knowledge or experience in environmental issues was not mentioned in the person's Curriculum Vitae. This may lead to environmental issues being overlooked. If a project contains important environmental aspects Sida should specify the environmental requirements for personnel assigned to a project.

Documentation covering eco-toxic impacts of chemicals was usually found to be very brief or non-existent.

#### Key factors of success or failure

Important factors of success for a project's environmental component include the following main elements:

Early definition of the environmental goals to be achieved by the project (supported by an EIA on a suitable level),

Inclusion of the environmental requirements in the Loan Agreement with a clear definition of the environmental measures to take and suitable processes for monitoring

Monitoring and follow-up in all project phases and after project completion

In the review we found that monitoring and project follow-up (in all project stages from inception to operation phase of the facility) were brief and in some projects almost non-existent. Lack of documentation of the follow-up phase could indicate a low level of activity on Sida's part in this phase of project management.

Environmental concerns raised by the local population can easily jeopardise the outcome of a project. Early and transparent communication between the project and local groups is therefore a very important tool for reducing economic risk, increasing the possibility of success and enhancing the sustainability of the project. Sida's strategy on this issue is not clear from the projects in the study.

All these elements are now more clearly defined in the 1998 Sida compilation of environmental guidelines.

The LFA method can be a suitable tool for Sida to develop, analyse, prioritise and incorporate environmental targets and goals into projects. The use of LFA as a tool for optimising environmental improvement should be further evaluated and enhanced.

Sufficient capacity and competence within Sida in environmental issues is also a critical factor of success. In our opinion Sida has a limited in-house capacity for environmental assessments and management and tends to rely to a great extent on external experts, and these are sometimes not specialised in environment. Sida's use of working groups should improve its management of environmental issues by providing a forum for more efficient dissemination and use of information and experience.

#### Suggested best practices for environmental issues in Credit-Financed Projects

Environmental issues are an integral part of all types of development assistance and are rightly high-lighted in the "Fifth Development Objective". In our opinion, the environmental issues should be given the appropriate weight in all Sida's activities including credit-financed projects. In addition, environ-

mental issues in Sida-financed projects have the potential to damage Sweden's reputation and may also constitute a business risk unless they are properly handled.

As the first and most important item we therefore suggest that Sida compile a list of environmental requirements which have to be fulfilled in order for Sida to participate in the financing of a project. Sida should make the requirements known to all prospective applicants for credit financing and also make it known that Sida will not consider an application unless the appropriate environmental documentation is in place.

The project owner should be responsible for the developing and compiling the information needed for the Sida decision process, and the project owner should also be responsible for implementing the agreed actions and environmental measures. The Sida requirements to be met by the project owner should include the following:

- An assessment must be made of the Environmental Impacts of the proposed project.
- Environmental goals/indicators for the project should be specified (in quantitative terms).
- Measures to mitigate any adverse environmental impact to "acceptable" levels should be defined.
- All relevant international and national environmental agreements and legislation must be complied with.
- If required, all necessary environmental permits must be in place before a defined project phase.
- Information should be given to the relevant authorities.
- Information should be given to local communities and NGOs.
- Definite mechanisms and formats for the monitoring and follow-up of the environmental items in the project should be specified.
- Measures that Sida will take in case of non-compliance with the environmental requirements should be defined

Sida should also define the information needed for the appraisal of the project prior to decision. The appraisal phase report should inter alia describe the environmental consequences of the proposed project and the environmental requirements, including mitigation measures that will be applied. It should furthermore define the need for project monitoring with respect to environmental aspects and sustainability. The appraisal phase report should provide the project-specific requirements in the environmental section of the Loan Agreement.

In projects also involving financing from other sources, Sida should ensure that, as a minimum, the Sida environmental requirements will apply to the environmental issues. This should be laid down in the agreement between Sida and the other financier(s).

In cases where Sida provides funding, not to a specific project but to a National Bank for a programme, Sida should evaluate the Bank's capacity for carrying out the appropriate environmental evaluations in connection with specific projects. Basically the same requirements as applied by Sida in a direct project financing should apply also in this case. Sida might e.g. require that the Bank's capacity be evaluated and, if it proves insufficient, that measures be taken to reach the desired level.

#### Introduction

#### 1.1 Background

During the past few decades, growing importance has come to be attached to environmental issues. Sida, like many other actors in society, has the important task of considering and integrating environment issues in its day-to-day activities. Since the Fifth Swedish Development Objective was established in 1988, more emphasis has been placed on the environmental aspects of development assistance projects.

#### 1.2 Scope of work

The purpose of this study is to assess how and to what extent environmental aspects have been considered at the different stages of the project cycle, i.e. planning, implementation and follow-up, of credit-financed projects (see Terms of Reference, *Appendix 1*). A desk study was carried out in April-June 1998, based on 20 projects which were selected in collaboration with Sida personnel and in accordance with criteria listed in section 4.1. An inception report was submitted to Sida on February 16, 1998.

The 20 projects have been analysed and assessed on the basis of the questions and criteria drawn up by Sida in the terms of reference. The issues to be assessed are:

- the actors involved,
- the effectiveness of the project (environmental goals and aspects in project management),
- possible impact and sustainability in relation to the fifth development objective,
- certain specific issues such as the recipient countries laws and regulations,
- key factors for success or failure and
- other donors' practices (During the evaluation it was decided not to include other donors' practices in the report, as the information collected proved to be too general to provide any interesting lessons for this study).

At Sida's request, minor parts of the analysis also involve comparisons with other development cooperation tools, namely untied credits and soft loans, in order to identify any differences and similarities in the managing of these instruments and credit-financed projects. Conclusions are drawn from the analysis and assessment of the projects, and recommendations are presented with a view to developing good practices for the future integration of environmental aspects in credit-financed projects.

#### 1.3 Contact persons

ÅF-IPK AB (the consultant) was been appointed by Sida to perform this study. Ms Gunhild Granath was in charge of the study. Mr Göran Stegrin, Mr Stefan Andersson and Ms Karin Seleborg participated as technical experts and Mr Hans Norrström assisted the project as a senior advisor.

We gratefully acknowledge the full and positive co-operation of Sida personnel throughout our work.

#### 1.4 Structure of this report

This report is divided into six sections. First comes the Introduction, followed by section 2, which deals with the credit financed scheme, its structure and purposes and the development of the credit instrument.

Section 3 deals with the fifth objective for development co-operation and other guiding documents regarding the environmental management of projects within Sida and the former BITS. Originally, credit-financed projects were managed by BITS, an organisation separate from Sida. Sida and BITS were amalgamated in 1995.

Section 4 describes the methodology and criteria used for selecting the projects.

The first part of section 5 presents the methodology for the analysis and assessment of the selected projects. Section 5 is mainly devoted to the analysis and discussion of the results from the review. This is made in accordance with the terms of reference and further discussions at meetings between Sida and the consultant.

In section 6, finally, conclusions and recommendations are given on ways in which environmental aspects could be considered in future credit-financed projects.

# 2. Conditions for the incorporation of environmental aspects into credit-financed projects

#### 2.1 Credit facilities

This study focuses on concessionary credits, the structure and aims of which are described below. As mentioned in the Introduction, some comparisons are also made with untied credits and soft loans. The role of Sida in a concessionary credit project is more reactive than proactive, in the sense that the possibility of demanding changes in the design of the project is more limited than with untied credits and soft loans. Normally, when a financing request is made to Sida by the exporting company or the recipient country, the process has already far advanced: the procurement has taken place, and conditions are already set and therefore difficult for the financier to influence.

#### 2.2 Sida's financing instruments

Apart from grants, Sida may provide financing of investments with credits. Today there are basically two credit instruments available: the market-funded Concessionary Credits and the Soft Loans based on appropriations through the aid budget.

The Concessionary Credit Scheme was introduced in 1981 to promote economic development and to enhance co-operation between Sweden and developing countries. The overall objectives of the Concessionary Credits are the same as for Swedish development co-operation as a whole. Eligible countries are low- and middle-income countries which are deemed to be creditworthy, and which pursue a development policy concordant with Sweden's overall development co-operation objectives.

The Concessionary Credits are the backbone of the present portfolio and predominate both volumetrically and in terms of the number of credits. They are basically tied, in that only contracts from Swedish suppliers with at least 50% (formerly 70%) content of Swedish origin can be financed with Concessionary Credits. At the same time the Credits Ordinance lays down that contracts financed with Concessionary Credits shall be awarded in international competition (in exceptional cases only, at the request of the borrowing country and if competitive conditions can be safeguarded, negotiated contracts may be financed by Concessionary Credits).

In order to ensure, as far as possible, that terms and conditions of the bids presented by Swedish suppliers in a bidding process is uninfluenced by official subsidies, Sida does not present any financing commitment until after bid-closing, when irrevocable bids have been presented. Sida calls this procedure 'contract financing' The procedure implies that possibilities of the contract financier influencing the design of a project or any part thereof are very limited.

For reasons stated above, Sida has introduced the possibility of providing Concessionary Credits as untied, thereby making it possible for the development of a project to be followed and influenced from an earlier stage of the project cycle.

#### 2.3 Legislative framework

Conditions for the granting of concessionary credits are laid down in the Ordinance on credits for particular development objects ("concessionary credits"), SFS 1984:1132 with amendments SFS 1987:989 and SFS 1995:870.

The legislation includes the following important provisions:

Concessionary credits may be given as:

- 1. export credits subsidised by the Swedish aid budget
- 2. a combination of a grant and an export credit, or
- 3. a combination of 1 and 2.

An application for concessionary credits is submitted to Sida by the government of the recipient country or by the Swedish exporting company. Decisions on concessionary credits and the conditions relating to them are made by Sida or by the Swedish Government. Concessionary credits may be granted only for projects given priority by the recipient countries. Furthermore, projects have to promote economic development and procurements should normally be made through international competitive bidding.

#### 2.4 Soft loans

Soft loans are funded out of the appropriations from the aid budget, hence there is no market funding and no need for a guarantee system. The terms are softer than for Concessionary Credits (normally the concessionary element is around 80%). They are normally granted according to the depreciation model, which means that the loan will be gradually written down by an amount equalling the amortisation payment. Soft loans are basically untied.

The fact of a credit offer not being tied to any Swedish delivery implies that Sida may commit its financing at an early stage in the project cycle and thereby influence the design and composition of the project to an extent commensurate with Sida's share in the financing of the project. Sida has opted for the term 'Project or Investment Financing' to differentiate from 'Contract Financing'.

#### 2.5 Further development of concessionary credits

The "Helsinki Agreement", which came into force in February 1992, limited the use of tied concessionary credits. According to this OECD agreement, projects deemed "commercially viable" shall not be eligible for concessionary credits, in order to limit trade distortions. Commercial viability is tested according to two criteria: if the net cash flow of the project is sufficient to service credits on market terms, and if finance is available on market terms for the project. As a consequence of this agreement, large credits to industrial and mining projects and most telecommunication projects are excluded.

In 1995/96 Sida conducted a study, "Bistånd på kredit", in order to review the role of credits as instrument in the future Swedish development assistance.

Sida proposes a more flexible application of the credit systems rather than the introduction of new ones. The main recommendation was to allow the provision of market-funded credits (Concessionary Credits) untied, thereby making them a financing instrument with features similar to those of the soft

loans where the possibility of Sida influencing the design of the project is concerned, and reducing the influence of commercial interests in the handling of a financing proposal.

#### 2.6 Procedure for Approval of Concessionary Credit Projects

#### 2.6.1 Request phase

In most cases Sida is approached by a Swedish supplier who intends to submit a tender or contract offer to a Ministry or organisation in a recipient country. In this case Sida will normally seek the views of the co-ordinating Ministry on the priority of the project and also ask for additional project documentation from the Ministry or the implementing organisation.

A short briefing on the project within Sida's Credit Committee leads to a preliminary decision on approval or disapproval. A "yes" will lead to further analyses and assessments, often with the assistance of a consultant. As Sida often enters the process after bid closing, its possibilities of influencing the conditions are limited, as was pointed out earlier.

A formal request should be addressed to Sida (and may be sent through the Swedish Embassy concerned). The request should be submitted by the Ministry responsible for aid co-ordination or, if sent by another Ministry or organisation, should be endorsed by the co-ordinating Ministry.

#### 2.6.2 Appraisal phase

The project appraisal phase involves Ministries and/or organisations in the recipient country, possible co-financiers, potential Swedish suppliers, and frequently, technical advisers contracted by Sida.

During the appraisal phase, many aspects of the project will be reviewed, one of them being the environmental impact. The applicant will normally reply to Sida's questions by enclosing a feasibility study or some other type of document. Sida will assess whether the project is justified on technical, organisational, environmental, financial and economic grounds. A notification has to be made to OECD. Sida will make a final decision on possible support at the end of the appraisal phase.

#### 2.6.3 Follow-up phase

The follow-up phase of a project includes project implementation, monitoring and evaluation. The components of the follow-up procedures may be:

- project completion reports
- full inspection by Sida
- report by the Swedish Embassy in the recipient country on the execution of the project, 6-12 months after its completion.

For projects co-financed with other bilateral or multilateral donors, the monitoring or evaluation can be made in accordance with the co-financier's procedures.

Representatives of Sida may, from time to time, visit projects. In specific cases, Sida will commission consultants to make in-depth project evaluations. Major deviations from project plans are noted and reported, but environmental impact is not routinely evaluated.

#### 2.7 Concessionary credits, soft loans and the environment

The managing of concessionary credits, which is briefly described above, has to conform to Swedish as well as international regulations and guidelines. However, compared with soft loans and grants, the possibilities of Sida making demands in general and environmental demands in particular on the project (conditions, results etc) are, as previously mentioned, usually limited. The financing organisation often enters the project procedure at a rather late stage, when terms for the procurements already are defined and, accordingly, the financier can do little to influence the project.

This is partly because the Swedish concessionary credit scheme is designed for contract financing with a close connection to the EKN system. As this guarantee system requires a well-defined business deal, where the appointed suppliers as well as details in the contract have to be known to the EKN, the assessment by Sida is made at a late stage in the process. Most often Sida's alternatives are to say "yes" or "no", a purely reactive role, even though there have been some exceptions. However, environmental aspects should always, according to Sida policy, be one of the criteria to be included in the assessment.

On the other hand financing by credits, in contrast to grants, often requires decisions on a high level in the developing country, and this may augment the possibilities of involving and making demands on (the inclusion of) environmental aspects of the project. Concessionary credits may also work as a basis with which other financing instruments like export credit and grants could be combined (cf. above, concerning suggestions by Sida about more flexible use of different combinations of existing credit and aid instruments). In this way Sida could obtain more scope for making demands.

Soft loans are mainly granted as untied project finance. In contrast to contract financing, the actors involved, e.g. Sida, may stipulate conditions at an early stage of things. The degree of subsidisation varies, though the term "untied" is clearly defined by the OECD.

## 3. The fifth objective for development co-operation and other guiding documents

#### 3.1 The fifth objective for development co-operation

The environmental objective for foreign aid was defined in 1988 by the Swedish Parliament as "the sustainable use of natural resources and the protection of the environment". The environmental objective will, together with the other development goals, form a totality aimed at raising the standard of living of people in the developing countries. In practice, the environmental objective has to be balanced against the other development objectives.

#### 3.2 Global environmental conventions

There are a number of global conventions concerning environmental issues. The most important ones are summarised in *Table 1* below. As will be seen, most commitments are related to activities within the states' own territories, but there are also commitments regarding the interaction between the states.

The most important international convention applicable to Sida is the Rio Declaration and Agenda 21, which addresses co-operation between rich and poor countries.

Table 1 Important global conventions relating to the environment

Global conventions	Original date	Number of signing states
The Basel Convention. Control of transboundary transports and final treatment of hazardous waste. Waste from Sweden may only be exported to states that have signed the Basel convention.	1992	35
The Rio Declaration, Agenda 21 and Principles for Sustainable Forestry.	1992	
The Rio Declaration includes 37 principles for the environment and development. Principle 4 requires environmental aspects to be integrated in the development process.		
Agenda 21 is the action programme of the conference. It includes objectives and targets and recommendations for the national and international work.		
The Principles for Sustainable Forestry provide guidelines for the sustainable use of timber resources around the world.		
The UN Framework Convention on Climate Change. Reduction of emissions of greenhouse gases in the next 50 years.	1992 (FCCC)	153
The Convention on Biological Diversity. Protection of bio-diversity and genetic heritage for the benefit of future generations. How developing countries should be compensated for exploitation by industrialised countries.	1992	153
The Vienna Convention and the Montreal Protocol. Measures to protect the ozone layer.	1985/1987	100
The convention about tropical timber. Sustainable use should be taken into consideration at trade of tropical timber.	1985	50
The Marpol Convention. Technical measures to protect oil spills at sea. Building of receiving stations. List of areas where particular considerations are required	1983	70
The Bonn Convention. Protection of migratory animals, endangered species in particular. Obstacles and threats should be removed.	1983	35
The Washington Convention. Control of international trade with endangered species.	1975	110
The Ramsar Convention. Preservation of wetlands for the protection of birds.	1975	65
The world inheritance convention. Objects in different countries with special qualities concerning nature and culture are listed. These objects are to be protected.	1972	120

#### 3.3 Sida's policies and guidelines

Sida establishes co-operation strategies for different countries. The country analysis, which forms the basis of the country strategy, includes the environment and sustainable development as one of the issues. The country strategy will not give a detailed action programme but general guidelines for which problems should be given priority.

The documents listed in *Table 2* were defined (by Sida) for the purposes of this study as guiding documents for the assessment of credit-financed projects. "X" in the table below indicates which guiding documents were applicable for each year during the period 1989-1997. These guidelines are designed for "general" development projects and programmes and may be less suitable for the special characteristics of the credit programme.

Table 2 Guiding documents

Year	5:th goal for foreign aid	MKB i biståndet (1991) <sup>1</sup>	Sustainable aid after UNCED (1995)	Policy for sustainable development (1996)	Policy for assistance to a sustainable energy sector (1996)	Project number (Appendix 2)
-1989	Х					8
1990	Χ					
1991	Χ	(X) <sup>1</sup>				7,9
1992	Χ	(X) <sup>1</sup>				
1993	Χ	(X) <sup>1</sup>				2,3,6,10,20
1994	Χ	(X) <sup>1</sup>				1,14,16
		В	BITS and Sida merg	ged 1995-07-01	L	
1995	Χ	Χ	Χ			4,19
1996	Χ	Χ	Χ	Χ	Χ	11,12,15
1997-	Χ	Χ	Χ	Χ	Χ	5,13,17,18

(X)1: Sida document, not used by BITS

The Sida guidelines for environmental impact assessment (MKB i biståndet) from 1991 have been revised during 1998. The main issues in both guidelines are similar, but the guidelines of 1998 are more informative. The main issues are:

- Description of the EIA procedure.
- Environmental impact assessment detailed and limited.
- Checklist for task manager.

To guide the assessment, a general guideline and sectorial checklists are developed and included in the manual. In large projects, external review of the Environmental Impact Assessment is advised. The main difference between the 1991 and 1998 issues is that in the latter it is the task of the project owner to present an EIA and Sida's main function is to make an assessment of the EIA. Sida may also, if deemed desirable, support the EIA work to be carried out by the project owner. There is also a more detailed description of how to make an extensive environmental assessment as well as a checklist for subjects to include in ToR for the environmental assessment.

Sustainable aid after UNCED (1995) is a report from the Ministry for Foreign Affairs describing Swedish development aid in the perspective of the Rio Declaration and Agenda 21. A number of principles, guidelines and working methods for reaching the objective of sustainable aid are developed. It is recommended that "the principles of sustainable development in the Rio Declaration should be observed consistently in all Swedish aid, in particular the precautionary principle, the polluter pays principle and the principle of mandatory environmental impact assessment". Multinational co-operation between different donors is discussed in the report, as well as actions recommended to Swedish aid organisations.

Sida's policy on sustainable development was published during 1996. It is based on the previous Sustainable aid after UNCED and outlines the principles Sida should use to fulfil the intentions in that document. The policy describes principles, methods of work and priorities for development aid projects funded by Sida. In addition Sida has launched an *Action Programme for Sustainable Development*, consisting of more than 60 action points involving all areas of Sida's operation. Sida did in 1998 make a thorough environmental investigation of all activities. Based on that an environmental management system has been initiated.

Policy for Sida's assistance to a sustainable energy sector, published in 1996, describes priority areas for assistance to the energy sector and principles and guidelines for Sida's development assistance in this field. The principles include domestic capacity building, use of domestic and environmentally friendly fuels, transition to renewable energy sources and energy saving measures.

In project management, Sida uses a methodology called *Logical Framework Approach* (LFA). The aim of the LFA is to help Sida identify important factors related to the realisation and sustainability of the project. It is also clearly stated that the project owner can use the LFA-technique to ensure good planning. The LFA method is not looked upon as a "guiding document" by Sida. LFA began to be used in credit-financed projects in 1995.

#### 3.4 National legislation

Most countries today have environmental laws and regulations, but these vary considerably in scope and quality. There may be regulations at local as well as national level. The legislation typically includes construction and operation permits, EIAs, emission limits, air and water quality limits and regulations related to monitoring, hazardous waste and solid waste.

#### 4. Selection of projects

#### 4.1 Criteria for projects to be assessed

The Sida terms of reference for the ÅF-IPK AB evaluation, *Appendix 1*, require approximately 20 projects to be covered. The projects should have been initiated in the time frame 1989-1994. In addition, the projects should reflect the relative importance of the geographical areas and the societal and industrial sectors (by credit amount) covered by the total number of credits. Projects that make good examples of integrating environmental aspects in credit projects may also be included.

Additional criteria have been developed in the planning phase of this evaluation.

- After discussions with Sida, the set of selection criteria was finalised as follows:
- At least ten projects initiated between 1989 and 1994.
- Five projects initiated after 1995, two projects where untied credits have been granted.
- Two projects which have received soft loans.
- Representative selection of projects by geographical area, sector and credit amount.
- At least five projects which are directly related to the environmental sector.
- At least five projects with a credit exceeding 100 MSEK.
- At least two projects which have been rejected for environmental reasons.
- At least five projects which have undergone an evaluation.

In addition it was desirable for the projects to be evaluated to include some are co-financed by the Regional Development Banks, the World Bank and major bilateral donor agencies (e.g. Danish, Dutch, Canadian and Norwegian).

Hardly any projects in the telecommunication sector having qualified for credits since the "Helsinki agreement" was signed in 1992, it was decided to exclude such projects from the evaluation.

#### 4.2 Projects Selected

The projects have been selected by the criteria given above.

To start with a list was made of projects from 1989 to 1994 in sectors where Sida is likely to be involved in the future (*Table 3*). The projects that were suggested for further analysis have been marked "Yes". The credit amount has been rounded to the nearest million SEK. Eleven of the forty possible projects were selected, together representing a credit amount of 2632 MSEK out of the total 4414 MSEK.

The complete list of projects has been used to establish the geographical and sectorial distribution of the projects to verify the selection in *Table 4*.

Table 3 Projects selected for further analysis from the Sida project listing for the years 1989 – 1994.

Sector	Date	Country	Project	Credit MSEK	Selected
Nat. Dev.	1989-12-31	Pakistan	IDBP	64	
Banks	1990-09-30	Thailand	IFCT	59	
	1991-03-31	Tunisia	Tunisian Development Bank	93	
	1991-03-31	Chile	Chilean Development Bank	60	
	1991-06-30	India		32	
	1993-06-30	Thailand	IFCT Phase	158	Yes
	1994-06-30	Tunisia	Tunisian Development Bank	145	
Energy	1989-06-30	China	Fluid carbon facility	35	
	1989-09-30	Kenya	Extension of bridge Kiabere	9	
	1989-12-15	India	URI hydropower	1400	Yes
	1989-12-31	Malaysia	Transmission project, Sarawak	56	
Ì	1989-12-31	Algeria	40 high voltage contacts	9	
l	1990-06-30	Kenya	Extension of operation monitoring	6	
l	1993-12-31	Lesotho	   Electrification	83	
	1993-12-31	Lesotho	Hydropower, Muela	214	Yes
	1994-09-30	Uganda	Hydropower, Owen Falls	80	
	1992-03-31	Ecuador	National monitoring station	78	İ
	1992-06-30	Zimbabwe	Extension of monitoring system	23	
	1993-06-30	Ghana	Rural electrification	57	Yes
	1993-06-30	Zimbabwe	Revamping of co-generation station	93	Yes
	1993-12-31	China	District heating, Dalian	25	Yes
	1994-06-30	Chile	Hydropower, Pangue	222	Yes
	1994-06-30	India	Chandrapur-Padghe	535	
	1994-09-30	Philippines	HVDC transmission, Leyte – Luzon	146	
Environment	1990-09-30	Tunisia	Drinking water plant, Cherguia	7	
	1990-09-30	Thailand	Sewage treatment	21	
	1990-09-30	Thailand	Sewage treatment, Phase II	21	
	1990-12-31	Tunisia	Sewage treatment, Kasserine	7	
	1990-12-31	Tunisia	Sewage treatment, Tabarka	9	
	1992-06-30	Malaysia	Environmental credit, MIDF	90	
	1993-12-31	Tunisia	Sewage treatment, Monastir	10	İ
	1993-12-31	China	Sewage treatment, Kunming	24	Yes
	1993-12-31	China	Drinking water plant, Nanhai	26	
	1994-06-30	China	District heating, Taiyuan, Shanxi	24	
	1994-09-30	Tunisia	Sewage treatment, M'Saken	15	
	1994-09-30	China	Drinking water plant, Shunde	30	
	1994-09-30	China	Sewage treatment, Gaobeidian	147	Yes
Phys. Planning	1989-09-30	Zimbabwe	Oil storage I	9	
. n.yo. i idininig	1991-06-30	Zillibabwc	Oil storage II	242	Yes
Transportation	1992-06-30	India	Konkan Railways	50	Yes

In addition to the selected projects initiated 1989 - 1994, nine other projects were included at Sida's request:

- five projects initiated after 1995,
- two projects for which untied credits were granted and
- two projects which received soft loans.

In Table 4 is a complete list of the projects selected.

Table 4 Projects selected for analysis

	Country	Project	Credit MSEK	Number
etween 1989	and 1994		•	
1993-06-30	Thailand	IFCT Phase II	158	20
1993-06-30 1993-12-31 1993-06-30	Ghana Lesotho Zimbabwe	Rural electrification Hydropower, Muela <sup>111</sup> Revamping of co-generation	57 214 93	4 10 3
1994-06-30 1989-12-15 1993-12-31	Chile India China	Hydropower, Pangue <sup>21</sup> URI hydropower <sup>21</sup> District heating, Dalian	222 1400 25	14 8 6
1993-12-31 1994-09-30	China China	Sewage treatment, Kunming Sewage treatment, Gaobeidian	24 147	2
1991-06-30	Zimbabwe	Oil storage   11,21	242	7
1992-06-30	India	Konkan Railways <sup>11</sup>	50	9
fter 1995				
	Vietnam	Hydropower, Song Hinh <sup>2</sup>	220	15
	China Tunisia	Noise control, Shanghai <sup>2</sup> Rehabilitation of sewage treatment	15 16	12 16
	Jamaica	Public transportation,	81	18
	Senegal	Public transportation, Dakar	82	13
			ļ	
	Vietnam	Transformation station, Song	112	5
	Ghana	Transformation station, Accra	63	19
	1		<u> </u>	
	Eritrea	Transformation station	18	17
	Bangladesh	Infrastructure	40	11
	1993-06-30 1993-06-30 1993-12-31 1993-06-30 1994-06-30 1989-12-15 1993-12-31 1993-12-31 1994-09-30 1991-06-30 1992-06-30	1993-06-30	Thailand   IFCT Phase   I	1993-06-30

<sup>1)</sup> Evaluation exists

<sup>2)</sup> Co-financing

From the beginning a major concern was to get a representative selection by geographical area, sector and credit amount. By "representative" is meant a selection agreeing with the typical profile of the projects from 1989 till 1994. However, the other requirements to some extent distorted the profile, as explained in table 5.

Table 5 shows a comparison of the selected projects with the selection criteria. The number of criteria compared to the number of projects made it difficult to find a selection of projects that would completely fulfil the criteria. Nevertheless, we believe that the selection is well in line with the criteria.

Table 5 Comparison of the selected projects (credits) against the criteria

Criteria	Selection Criteria Satisfied/Not satisfied
At least ten projects initiated between 1989 and 1994.	Yes.
Five projects initiated after 1995, two projects where untied credits have been granted.	Yes, two projects where untied credits have been granted.
Two projects which have received soft loans.	Yes.
Geographical area, sector and credit amount (compared to the profile of the total number of projects from 1989 to 1994).	For geographical area, yes. However the energy sector in our selection corresponds to a slightly bigger share of the credit amount and the environmental sector of a smaller share of the credit amount than is typical of the total number of projects.
At least five projects related to the environment sector.	No, four projects.
At least five projects with credit exceeding 100 MSEK.	Yes, eight projects.
At least two projects which have been rejected for environmental reasons.	No, BITS/Sida does not keep lists of rejected projects which makes them difficult to identify.
At least five projects which have undergone an evaluation.	No, four projects
Projects co-financed by other funding organisations or Banks.	Yes, six projects

#### 5. Analysis of credit-financed projects

#### 5.1 Methodology for analysis and assessment

Data and information necessary for the assessment have been collected from written reports and interviews with key personnel.

#### Basic structure of analysis

Project files have been reviewed to assess the *effectiveness of environmental project management* and *environmental impact and sustainability*<sup>2</sup> in Sida credit-financed projects:

- The assessment of the environmental management investigates Sida's effectiveness in the environmental
  management of the credit-financed projects studied. Effectiveness is measured as how well the Sida
  procedures conform with requirements based on the international standard for environmental
  management system, ISO 14001, which is the most commonly accepted environmental management system world-wide.
- The projects' possible<sup>3</sup> environmental impact and sustainability indicate whether the projects are good or bad for the environment; this does not necessarily follow from good or bad environmental management. The fifth development objective and other guiding documents have been used to assess the impact and sustainability of the projects.

#### ISO 14001

For the assessment of environmental project management, the concepts of ISO 14001 are used as indicators. ISO 14 001 is an international standard which specifies the requirements in a system for efficient environmental management.

Many publicly quoted Swedish companies are implementing this system. At present approximately 300 companies are certified. The standard has been written to be applicable to all types and sizes of organisations. Today most certified organisations are manufacturing companies, but several service organisations – the City of Stockholm, for example – are also implementing the system.

ISO 14001 does not set any specific environmental goals or levels of environmental performance to be achieved. Goals and level of environmental performance are decided by the organisation itself, but the Standard supports and requires an organised and systematic way of dealing with environmental issues. An organisation certified to ISO 14001 commits itself to continuous improvement and a periodic and systematic assessment and evaluation of all activities of importance for the environment. Having an effective environmental management system means, according to ISO 14001, that all environmentally important activities and information are well organised, documented, applied and known throughout the organisation. ISO 14001 provides a guiding structure for the assessment of the different important parts of the environmental management system and what these parts should include in terms of information, procedures, roles and responsibilities, goals etc.

<sup>&</sup>lt;sup>2</sup> Sustainability, as it is defined in the guiding documents, is discussed in section 5.5.3.

<sup>&</sup>lt;sup>3</sup> Environmental impact and sustainability are regarded here as "possible", since this report is based on written reports and interviews. No field studies have been undertaken.

In this report the terminology defined in ISO 14001 will be used. The most important terms are:

Environmental impact – Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services.

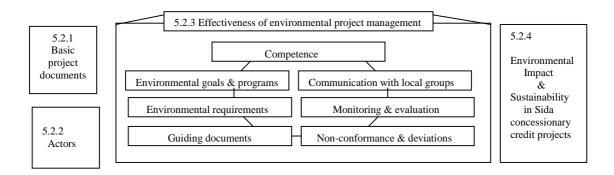
Environmental aspect – An element of an organisation's activities, products or services that may interact with the environment.

Environmental management system – The part of the overall management system that includes organisational structure, planning, activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.

Other terms used will be defined as and when they occur in the text.

The standard represents a plan-do-check-act way of thinking, which is a commonly used concept in quality management. The "plan and do" phase of ISO 14001 corresponds to the request and appraisal phases in the credit procedure. The "check and act" corresponds to the follow-up and evaluation phase.

The analysis in this study is structured according to the figure below, which also gives an overview of the different subsections under chapter 5. The figure is repeated at the beginning of each sub-section.



#### The fifth development objective

In the assessment and evaluation of the possible *environmental impact and sustainability* of the Sida creditfinanced projects in this study, the fifth development objective has played a central part.

The fifth development objective, "sustainable use of natural resources and the protection of the environment", is a general objective. To be able to assess whether the projects comply with the objective, the latter needs to be interpreted in quantifiable terms.

In our assessment of the environmental impact and sustainability of the projects, we have therefore decided to use "impact categories", which were originally established by the Nordic Council of Ministers. These categories, which are listed in *Table 6*, are widely used in life cycle assessments and other environmental assessments. Other scientific terms may, however, be used. A category is a collection of environmental assessments.

ronmental aspects (like emissions and use of resources) with similar types of environmental impact<sup>4</sup>. When a large number of different environmental impacts are then to be assessed together, a significant degree of subjectivity is unavoidable.

Table 6 Impact categories

Impact categories
Efficient use of resources (energy, materials, water, land and wetlands)
Human health impacts
Global warming
Depletion of stratospheric ozone
Acidification
Eutrophication
Photo-oxidant formation
Ecotoxicological impacts
Habitat alterations and impacts on biological diversity

How can compliance with the fifth development objective be defined? We recognise that no project will give rise to environmental improvements only. There are always some disadvantages which have to be accepted. We have therefore defined compliance with the fifth development objective as follows. The project complies if the environmental improvements outweigh the disadvantages. It has to be noted that knowledge of the environmental impact and sustainability of the projects in this study is based only on written reports and interviews, and not on field studies (which means that reality could be different).

In the assessments of the projects, use was made of the template given in *Appendix 3*. That template was designed for the express purpose of answering the questions asked by Sida in the ToR.

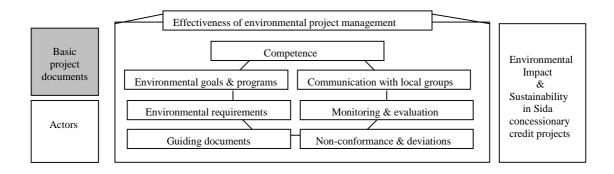
The results from the analyses of the projects are presented in 20 reports. The project reports are listed in *Appendix 2* and are available at UTV. The reports are structured according to the template.

#### 5.2 Analysis and findings

The analysis in this section is based on the selected projects as described in previous sections. It has to be realised that there are great and manifold differences between the projects. The credit amount varies between 15 MSEK up to 1,400 MSEK, and encompasses projects from the purchase of drilling machines up to the construction of a complete hydropower plant. The wide scope and the generalised nature of the observations and conclusions presented must therefore be borne in mind when reading this report. In each chapter the analysis is structured around Sida's questions in the ToR. In this analysis the appraisal phase starts with the application for credit-financed projects and the follow-up phase starts with the loan contract.

<sup>&</sup>lt;sup>4</sup> To exemplify this, CO<sub>2</sub> and CFC-11 ("Freon") are studied. Both contribute to impact category 3 (Global warming). The contribution is expressed in CO<sub>2</sub>-equivalents and this is of course 1 for CO<sub>2</sub> but for CFC-11 approximately 1000. This enables us to make quantitative comparisons of environmental aspects with similar impact.

#### 5.2.1 Basic project documents



1. Which steps in the credit financing scheme take environmental information, assessments or requirements into consideration?

Environmental issues are manifested in a number of documents. Basic project documents that may include environmental issues are presented in *table 7*.

#### Flow of environmental information

Basic environmental documents in the request phase were assessments, feasibility studies and plans. They were sometimes made available to BITS/Sida in the request phase and sometimes in the appraisal phase. About 80 % of the number of documents with environmental issues were developed during the appraisal phase. Important documents of this kind were assessments initiated by Sida, decisions by Sida and the Swedish Government, agreements and contracts.

Only a small number of documents (mostly monitoring and evaluation reports) from the follow-up and evaluation phases could be found in the files at Sida. Final evaluation of the project had been made in four of the projects from 1989-1994 and environmental aspects were included in all of them. Procedures for follow-up and evaluation were not included in Sida's guidelines for environmental impact assessment "MKB i biståndet (1991)", but were later incorporated in "Riktlinjer för miljökonsekvensbedömningar i utvecklingsarbetet (1998)". Environment is also mentioned as one of the objects to be selected for evaluation according to Sida's Evaluation Policy (approved by the Board in 1995). It is not clear from the files whether the post-1994 projects have yet reached the stage when evaluations should be considered.

In projects where the World Bank has played a part, regular reporting in the follow-up and evaluation phase originates from stipulations by the World Bank.

Generally there was more environmental information in large projects or when the credit was financing a part of a programme with many donors. In project 20, where the receiving party was an intermediate bank, there was less information concerning environmental consequences than in the other projects.

Table 7 Basic project documents at Sida in which remarks concerning environmental issues can be found

Project							198	9-19	94					1995-				Untied		Sof	
Document		1	2	3	4	6	7	8	9	10	14	20	12	13	15	16	18	5	19	11	17
Request (14)																					
Recipient's pre-feasibility study	2		~			~															
Recipient's feasibility study	5	~	~			~							~					~			
Recipient's environmental assessment	7		~			~				~	~			~	>					~	
Appraisal (82)																					
Recipient's master plan	4		~		~												~			~	
Feasibility study by co-financier	1			~																	
Environmental assessment by co-financier	6			~	~			~		~	~							~			
Environmental assessment by exporter	1						~														
Environmental assessment by NGO	1										~										
Review of tender document by	3			~	~														~		
BITS/Sida's consultant Second opinion of consultant's review of	1				~																
tender documents Review of pre-investment study by BITS/Sida's consultant	1			~																	
Ref. for consultants for BITS/Sida's appraisal	1	~																			
ToR/Contract between BITS/Sida and consultant for appraisal	13	~	~	~		~		~	~		~		~	~	>	~		~	~		
Sida consultant's appraisal	16	~	~	~	~	~	~	~	~		~		~	~	>	~	~	~			<b>&gt;</b>
Second opinion of Sida's consultant's appraisal	3	~				~											~				
Decision memo at BITS/Sida	17	~	~	~	~	~		~	~	~	~	~	~	~		~	~	~	~		>
BITS/Sida's approval of subprojects	1											~									
Decision by Swedish Government	3							~										~	~		
Consultant's review of commercial contract between buyer and exporter	5	~		~	~		~		~												
Commercial contract/ MoU between	4	~			~		~											~			
buyer/ exporter MoU between financiers	1							~													
Follow – up (9)																					
Loan agreement co-financier/ recipient	1								~												
Agreement between recipient and Swedish Government for panel of experts	2							~		~											
monitoring reports	2							~		~											
Final project evaluation	4			~			~		~	~											
Sum of references to environmental issues 105		8	7	9	8	7	5	8	6	6	6	2	4	4	3	3	4	7	4	2	2

The documents listed in *table 7* can be found in the files at Sida. The documents have either been collected or produced by Sida and observations from these form the basis of the analyses in this study.

#### Comparison between projects started by BITS and new Sida

A number of observations can be made concerning the possible differences between BITS and new Sida,. (The total number of projects investigated from this period, however, is small.) In projects started before 1995, a number of environmental assessments originating from co-financiers were included in the files. Project started after 1995 did not contain this kind of documentation. Environmental aspects were also incorporated in a number of agreements and contracts in project documentation originating from 1989-1994. This was not the case in projects started during 1995 and later.

One explanation of the lack of environmental assessments made by co-financiers in the files after 1995 may be that projects started after 1995 did not form part of larger programmes and that no other financiers than Sida existed. The total number of projects investigated from this period, however, is small.

2. In what kinds of documents are environmental issues present and what documents include environmental assessments or evaluations?

#### Documents with environmental information

Most of the environmental information could be found in environmental assessments from the recipient country. Those studies were not made to fit BITS/Sida's requirements. Sometimes there were several assessments from the recipient country. As mentioned above, they were collected by or sent to BITS/Sida in the request phase and sometimes in the appraisal phase. Assessments were also available from co-financiers.

There were also instances where one of the assessments was a review of another assessment. There were also assessments available from exporters and NGOs. In addition to assessments made by others, BITS/Sida made one or two assessments of its own in the appraisal phase for each project, through contracted experts. These assessments generally included environmental management issues, such as the existence of environmental permits. By this procedure BITS/Sida achieved quality control of available material and also had the opportunity of identifying and collecting missing information. BITS/Sida's own assessments were summarised in the decision memo according to a written procedure. BITS/Sida's own environmental assessments, as well as the decision memos, were to a large extent based on assessments, feasibility studies and plans produced by others, which is necessary considering the resource inputs involved in collection such a large amount of information.

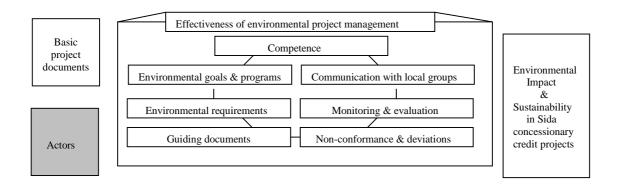
Business and loan agreements did not generally include environmental issues.

To sum up, BITS/Sida's preliminary assessments were, in most cases, based on a number of environmental assessments, feasibility studies and plans produced in the recipient country. We cannot see any great differences between BITS and Sida projects as regards the management of environmental information.

#### Environmental information not available in documents

Interviews with Sida personnel indicated that the BITS/Sida officers sometimes had a lot of information that was not found in the files. The reason for this is probably a lack of guidelines for management of documents.

#### **5.2.2 Actors**



#### 1. What actors are involved in BITS/Sida credit-financed projects?

#### The actors in the projects studied

A large number of actors are involved in the management of credit-financed projects. Actors (other than BITS/Sida) identified in the files of the selected projects are presented in *Table 8*. "1)" means that the exporter has not yet been selected.

Table 8 Actors in projects

Project	198	39-19	994									199	5-				Unt	ied	Sof	t
																			loar	าร
Actor	1	2	3	4	6	7	8	9	10	14	20	12	13	15	16	18	5	19	11	17
Other aid			~	~		~	~		~	~				~		~	~	~		
organisation																				
Recipient's	~	~			~	~	~		~	~									~	
experts																				
Buyer	~	~	~	>	<b>&gt;</b>	~	<b>\</b>	~	<b>\</b>	>	~	~	<b>\</b>	~	~	>	~	~	~	~
Exporter	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	1)	~	1)	1)
Recipient							~		~					~		~	~		~	~
country																				
government																				
Swedish							~							~		~	~	~	~	
government																				
Authority in rec.	~	~	~	~	~	~	~	~	~	~		~	~	~	~	~	~	~	~	~
country																				
Local																			~	
government																				
Other									<b>\</b>											
government																				
Experts from	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
BITS/Sida																				
Borrower	~	~	~	>	>	<b>&gt;</b>	<b>\</b>	~	<b>\</b>	<b>&gt;</b>	~	~	<b>\</b>	~	1)	<b>&gt;</b>	~	1)	~	~
according to																				
loan agreement																				
NGOs										~										
OECD	~	~	~	~	~	~	~	~	~	~	~	~	1)	~	~	~	~	~		
Exporter's bank	~	~	~	~	>	>	>	~	>	~	~	~	>	~	~	~	1)	~		
EKN	>	>	>	>	>	>	~	>	~	~	>	>	~	1)	>	~	~	>		
SEK	~	~	~	~	~	~	~	~	~	~	~	~	~	1)	~	~	~	~		
The Swedish	<b>&gt;</b>	~	~		~	~	~	~	~	~	~			~	~	~	~		~	~
embassy																				
End user	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~
Intermediate											~									
financier																				

From the perspective of complying with the fifth development objective, it is important to identify the influence of different actors on the environmental result of the projects. Actors influencing the credit-financed projects are presented in *Table 9*. The assessment is based on general impressions and our own personal, subjective opinion.

Table 9 Actors influencing the environmental result of the project

Actor	Degree of influence in different phases
	Request phase
Other aid organisation(s)	Large
Recipient's experts	Large
Buyer/end user	Large
Exporter	Large
Recipient country government	Medium
Swedish government	Limited
Local government in recipient country	Limited
Governments in other countries	Limited
Authority in rec. country	Limited
Sida/BITS	Limited
	Appraisal phase
Sida/BITS	Medium
Experts from Sida/BITS	Medium
Swedish government	Limited
Lender according to loan agreement	Limited
NGOs	Limited
	Follow-up phase
Sida/BITS	Limited
Experts from Sida/BITS	Limited
Recipient's experts	Limited
Local government	Limited

It can be noted that other actors than BITS/Sida exerted a great deal of influence on the projects in an early phase. In the follow-up phase the general impression is a low degree of influence for all actors.

2. What are different actors' roles and responsibilities, how do they interact with BITS/ Sida and how do they treat environmental issues?

#### BITS/Sida

One general impression is that there are many actors in the projects. In large projects or programmes where BITS/Sida was only one of many donors, BITS/Sida's influence was reduced. In projects where the World Bank was a party, BITS/Sida's management of the project was strongly influenced by the World Bank's environmental procedures and policies.

In the request phase of the projects BITS/Sida was not very active. In the appraisal phase of the credits, BITS/Sida may say "yes" or "no" to the project. As a result of information collected under the request, and of assessments and recommendations made by BITS/Sida's contracted experts, in our opinion BITS/Sida had information and knowledge enough to decide on approval or non-approval of the project from an environmental perspective. However, this knowledge was not used to state how the environmental issues should be dealt with further on in the projects. No environmental conditions for the credits were stated in BITS/Sida's decisions. However, in project 20, as the result of an effort by BITS/Sida, the agreement between The Industrial Finance Corporation of Thailand and SEK stipulated that environmental investments were to be included and investments with adverse environmental impacts were not to be accepted. In project 14, BITS/Sida tried to introduce the same environmental conditions in the financial agreement between the Swedish bank and the recipient that was used in the

financial agreement between International Finance Corporation and the recipient. For some reason not apparent in the files BITS/Sida did not succeed in this.

There were several reasons for influence in the follow-up phase being limited:

- The possibilities of influence were reduced once the project had started.
- There was little feedback from the recipient.
- There was no procedure for implementing recommendations made by experts.
- Follow-up procedures were lacking at BITS/Sida.

#### Internal actors at Sida

There were also several different internal actors within Sida. A number of Sida departments may be involved in the handling of a credit project. Credits are usually managed by SIDA /INEC. Depending on the type of project, other departments, such as NATUR, may be involved as well. Co-operation means divided project management or an advisory role for some departments. For advisory co-operation we could not find any clear assignments of responsibility (in the projects studied) in environmental matters, nor was there a procedure describing how to interact and use each other's knowledge and competence.

#### Other aid organisations

The role of other donor organisations varied from that of the World Bank, which sets "standards" for how to assist the recipient country, to organisations like NIB and NORAD, which may contribute parts of the funding but have less influence on the management of the project. In practice, BITS/Sida had to follow the environmental guidelines issued by the World Bank and other important organisations when these were involved and The BITS/Sida project is part of a larger programme.

As for co-financing organisations like NIB and NORAD, we perceive that their role would, partly at least, depend on which organisation was engaged from the commencement of a project. In the case of co-financiers, there were no clear assignments of environmental responsibilities. In such cases we feel there was a risk of environmental issues being overlooked. It was not possible to find a procedure for the sharing of responsibility for the environmental issues between the agencies, although examples of memorandums of understanding (including environmental issues) exist in projects 5 and 8.

#### **Buyers**

The buyer could be an import company, a state-owned company or an authority (for example, China National Machinery Import and Export Corporation, Zimbabwe Electricity Supply Authority or the Ministry of Energy and Mines in Ghana). In the project where there was an intermediate financier (20), the buyers were a selection of private or state owned companies.

In most cases, the buyer and the end user were identical, if by end user we mean society. Installations like water treatment plants, electric power systems and transportation would be operated by companies owned by the state, municipalities or authorities.

One general impression gained from the documents is that in several projects, buyers/end users and experts in the recipient country have strongly influenced both technical and environmental issues, as is natural for a purchaser.

## **Exporters**

In all credit-financed projects the exporters were Swedish companies or consortia (according to the rules for credit-financed projects). In one of the untied credit projects (19) the exporter was also a Swedish company. In the two recent untied and soft loan projects (5 and 17) the exporter had not yet been chosen. In project 11 (Road investments in Bangladesh) it was not clear from the file who the exporter was.

Normally, according to the credit project scheme, the exporter is the one to contact Sida. However, in the two cases of untied credits the World Bank and the Ministry of Energy and Mining in Ghana made the requests. In one of the cases with soft loan funding, the request came from the Government of the recipient country.

There were few examples (project 6 and 7) where the exporter had paid attention to environmental issues as a result of the exporting company's own environmental policy and awareness.

#### Contracted experts

In all the projects reviewed, there was at least one and in some cases up to four different consulting teams/experts contracted by Sida to assess the project proposal and reports. Experts were also contracted for evaluation after the project was finalised in four cases. The recipients may also contract experts. In project 8, 10 and 11 a panel of experts was part of the project management.

## Governments of Sweden and the recipient country

The role of the Swedish Government was to approve untied credits (and in some cases tied credits as well) according to the Ordinance on credit-financed projects (projects 5,18 and 19)<sup>5</sup>.

In projects 8, 10 and 15 the aid was based on agreements between the Swedish Government and the Government of the recipient country. In one project (10) there was also an agreement between the Government of the recipient country and the Government of the neighbouring country concerning the use of water from a hydropower plant.

In project 11 (road building and infrastructure) the local government had operational responsibilities. This project had a soft loan financing.

In the projects based on agreements between the Governments of Sweden and the recipient country, we believe that the environmental activities should be strongly influenced by the agreement – if environmental issues were part of it. For example, in project 8 an expert panel was required to report concerning impact on aquatic life in a river. In the agreements in projects 11 and 15 there were no specific conditions of environmental consideration (although reduced environmental impact was an overall target of those projects).

#### Authorities

Authorities at local and national levels were actors in many of the projects. As mentioned above, the authorities may represent themselves or be represented by state-owned or municipal companies as buyers, borrowers and end users. Authorities involved included Ministries of Finance, Ministries of Planning, a Ministry of Energy and Mines, and a Ministry of Foreign Affairs. With the exception of projects 15, 16 and 17, the environmental authorities were not mentioned in the project documentation and had not played a significant role according to the documents. The projects mentioned started after

<sup>&</sup>lt;sup>5</sup> See also chapter 2.6 – Procedure for approval of Concessionary Credit Projects

1995, but we did not find anything to indicate that the more frequent inclusion of environmental authorities in projects was a new strategy on Sida's part.

## Financing institutions

Financing institutions were represented in all the projects studied by at least one bank. Often several banks were involved in the project on the exporter's side, as well as on the buyer's side. The lender in the loan agreements was a Swedish business bank or SEK.

The borrower, according to the loan agreement, was in most cases the Ministry of Finance in the recipient country (10 projects) or a state-owned bank (5 projects). In project 20, an intermediate financier transferred funds to different projects in Thailand. In project 10 (Hydropower Panque), the borrower was a company. In projects 11, 16 and 17, the financial actors were not clearly identifiable from the project files.

SEK had an agreement with Sida that included the raising of funds in capital markets for credits and the management of payments. SEK has different roles for different credits. Often SEK is re-financier of the business bank credits or may take over the credits. SEK may also be the credit giver, which is often the case with credits to intermediate financiers.

We cannot see from the files that the banks have considered environmental issues in the projects funded. They are likely to be interested in environmental requirements mainly as a risk management issue.

#### Swedish Embassy

In the majority of projects (16 out of 20), the Swedish embassy was involved. The Embassy supplied information and assisted in negotiations and practical arrangements. The main subject of contacts between the embassy and BITS/Sida was business and trade discussions, while environmental matters did not play any significant role.

#### .NGOs

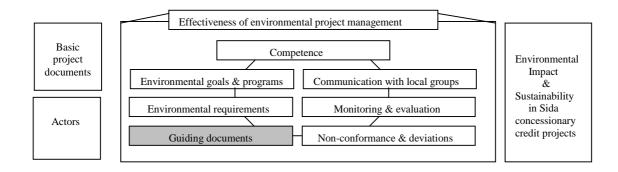
At least two projects (9 and 14) led to activities by NGOs. In one case (14) Sida (took action and) decided to fund information campaigns by local environmental NGOs.

## 5.2.3 Effectiveness

Are environmental aspects included in the analysis of project effectiveness (in both the request, appraisal and the follow-up phase)?

To analyse the effectiveness of the management of environmental aspects in projects, we apply the concepts and ideas of ISO 14001.

## 5.2.3.1 Guiding documents



What environmental principles have guided environmental assessments and precautions in BITS/Sida's management of the projects or the management of the project as a whole. How has BITS/Sida interpreted the guiding documents?

Sida's guiding documents are presented in section 3.3. Guidelines from other aid agencies influence projects when those agencies have been involved. This is particularly important for projects where the World Bank plays a part. This was discussed earlier in section 5.2.2 – Actors.

#### Use of guiding documents

There was no difference observed regarding the use of guiding documents with respect to the different project categories (tied credits, untied credits and soft loans). As the number of projects with references to the guiding documents is small, it is difficult to draw any conclusions regarding a possible increased use of the documents during recent years.

References to guiding documents were found in files for 5 out of 20 projects:

- In project 8, a policy document for India called "Inriktningsbeslut för Sveriges bistånd till Indien" from 1996 was included. The fifth objective was referred to as one of the two main objectives of aid to India.
- In project 9, the consultant contracted by Sida for evaluation was required by Sida to compare the result with the six objectives for development co-operation.
- In project 16, the consultant contracted by Sida for appraisal was asked to use Sida's guidelines for EIA. There is a reference to Sida guidelines for EIA in the ToR for this project.
- In project 17, it was stated in the decision memorandum that Sida's country strategy and policy for sustainable development had been the guiding documents in the appraisal phase.

• In project 20, the customer (a development bank) was informed by Sida that restrictions regarding fossil fuel plants had been established by a new energy policy (Policy for assistance to a sustainable energy sector).

The reason for referring to the policy regarding fossil fuel plants in project 20 may have been that the project coincided in time with the publication of the policy. Another reason may have been that the policy concretely specifically described what it encompassed, which made it easier to refer to.

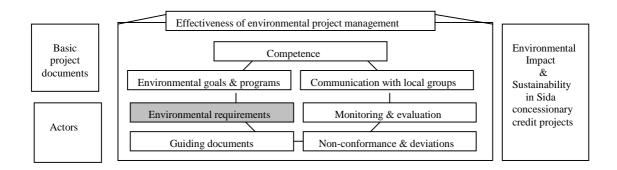
## Use of guiding documents in BITS

Before the merger of BITS and Sida, only the *fifth aid objective* guided the environmental management of the projects. As already mentioned, there were only two projects (8 and 9) in this study that contained references to this objective. One problem with a goal like the fifth Swedish aid objective is that it is broad and difficult to translate into practical terms for funding projects. From the user's point of view, the objective has to be translated into more operational, understandable and measurable terms relating to project management.

## Use of guiding documents since BITS became a part of new Sida

It was observed that even after the merger of Sida and BITS, when Sida's *guiding documents* were applicable, references to the guiding documents were very scarce (projects 16 and 17). The environmental guidelines established by Sida (see section 3.3) were described in several brochures and handbooks, which may make them difficult for the consultant or project manager to understand and use. In project 16 there was a discrepancy between the way in which environmental assessments should be performed according to the guidelines, and the way they were carried out in practice. Whether this was due to a misunderstanding or to lack of resources for implementation of the guideline, or whether it was not applicable in this case, is hard to say. Despite the lack of references to guiding documents, the files leave us with the impression that the BITS/Sida management's environmental awareness has grown during this period.

## 5.2.3.2 Environmental requirements in the recipient country



Were the laws, regulations etc. concerning environmental aspects, taken into consideration in the appraisals?

## Non-compliance with environmental regulations

In at least one project there were indications of non-compliance with environmental regulations. The project in question (1, approved by BITS) involved a water treatment facility in China where the content of heavy metals in sludge would exceed the recommendations by the authorities. However, it is difficult to draw any conclusions, from the limited number of projects with legal information, as to how well the projects comply with national environmental legislation in general.

#### Environmental regulations in documents

Investigation of national legislation usually requires special efforts such as contacts with national and local authorities. The legislative situation may also be quite diffuse and hard to grasp. During appraisal, little attention has been paid to the legislation issues. In more than 50% of the projects studied, national and municipal regulations were not mentioned in the files. When such information was present, it could be found either in the appraisal report at BITS/Sida or in EIAs produced during the request phase in the recipient country.

In at least three projects the appraisal reports included a description of the legal situation. This was a result of a specific requirement in the corresponding ToRs.

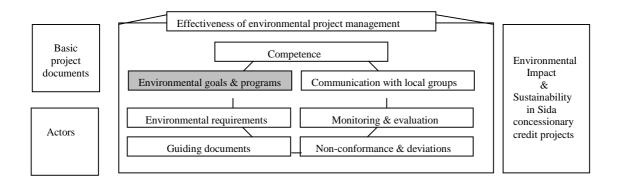
In our opinion, environmental legislation has to be an issue in the appraisal report (and in the ToR). The contracts between seller and buyer often included a clause that national legislation must be complied with. This clause may have been the reason for Sida not requiring environmental legislation issues in the ToR for the appraisal. However, when the environmental legislation is not explicitly mentioned in the commercial contract the subject may be overlooked.

#### International conventions

International conventions were taken up in one project only (14). In this case BITS checked if the recipient country had signed the convention of biological diversity. Consideration of international conventions has not been requested in the ToR for the consultant appraising the project in any of the 20 projects studied.

International conventions signed by the recipient country should be looked upon as a legal issue. Sometimes it may be a problem finding out which conventions the recipient state has signed. International conventions are not included in BITS/Sida´s appraisal reports if this is not clearly specified in the ToR for the contracted expert. Our opinion is that BITS/Sida has not paid much attention to international conventions in the projects covered by this study.

## 5.2.3.3 Environmental goals and action programmes



Are environmental aspects expressed as an explicit goal for the project? Have environmental action programmes been introduced in the project?

Use of documented environmental goals or action programmes

Environmental goals were referred to in 9 projects. In 5 projects the goals were introduced by Sida, Sida's contracted experts or the Swedish Government. A more frequent use of LFA as a working

method after 1995 seemed to result in more environmental goals in projects from this period. In two projects (10 and 14), environmental goals were introduced by other donors, in one project (18) by the recipient country and in one project (4) by the exporter. The environmental action programmes are not very well described, but some information about the activities is given in projects 8, 10 and 14.

#### Goals and environmental action programmes mentioned in agreements

There are three examples of environmental goals that have been incorporated in agreements between the Swedish Government and the government of the recipient country or financial agreements between the Swedish bank and the recipient and that consequently may be considered binding. In a treaty between the Swedish and Indian governments, environmental measures in several areas were agreed upon and reforestation goals were set (project 8). The two examples (10 and 14) of financial agreements which include environmental goals are related to other financiers than BITS/Sida in those projects.

When goals and environmental action programmes are not included in agreements, it is unclear what will happen if the goals are not achieved.

## Connection between environmental aspects and goals

There is only one project where the goals were based on environmental aspects observed in the appraisal report (1). In the projects (5,16 and 17) where environmental goals are included in the LFA, it has not been possible to find information regarding how these goals were established.

Projects 1 and 8 are the only examples where goals have been expressed in a quantitative way. These two projects were approved in the period 1989-94.

## Inclusion of environmental aspects in commercial contracts

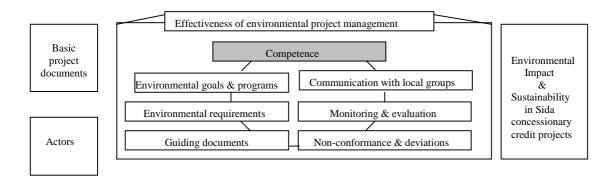
As usual in commercial dealings, the contracts between exporter and buyer describe the technical performance of the equipment delivered. The terms of the business contract influence the environmental impact and could be regarded as quantified environmental targets, e.g. treatment efficiency for waste water treatment plants (see, for example, projects 1, 2 and 3), though not initiated by the aid organisation. It is not clear whether BITS/Sida has tried to include environmental goals in the contract between the exporter and the buyer or not.

## Use of Logical Framework Approach

Sida introduced LFA (Logical Framework Approach) during 1995 in order to improve project management and to set up objectives and targets. The LFA methodology was used in five projects (5, 13, 16, 17 and 18). As mentioned above, three of the LFAs included environmental goals. These projects were supported by Sida after 1995.

In our opinion, the LFA method seems to be a suitable tool for establishing environmental targets and goals in credit-financed projects. However, it is important that all environmental aspects should be considered, which was not the case in the projects mentioned.

## 5.2.3.4 Competence



1. Are personnel with adequate competence available for environmental assessments in the projects?

This section deals with competence at BITS/Sida, the competence of the experts contracted by BITS/Sida and that of the experts available in the recipient country.

#### Internal competence

Two projects (12 and 18) from the period after 1995 contain documented suggestions regarding environmental improvements made by Sida's internal environmental expertise. In a number of projects, several other departments/sections at Sida such as RELA, NATUR and INFO etc were involved together with Sida/INEC in the appraisal procedure. In recent years, working groups for project management have been formed with members from Sida/INEC and other departments.

The formation of working groups with different competence profiles will enable Sida to deal with environmental issues more efficiently. According to Sida representatives, the discussions within these groups were very briefly described in notes and the outcome was therefore untraceable during our review.

#### External competence

Our impression is that BITS/Sida has made great efforts to select qualified external expertise for the appraisal of the projects. As already mentioned, there has been at least one instance of BITS/Sida asking for a second opinion of the appraisal report from another expert. The CVs of the consultants contracted were only found in two projects, but our impression was that the consultant's main expertise often lay in fields other than that of the environment (though there were exceptions).

If the expert contracted by Sida does not have enough knowledge or experience in the environmental field, important aspects may be overlooked, particularly when environmental issues are not specified in the ToR (as was often the case).

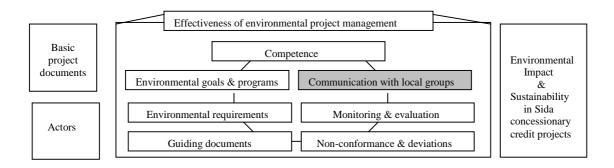
2. Has attention been paid to the environmental competence of recipient organisations/users and other interested parties?

As already mentioned, the assessments made by BITS/Sida were very much based on assessments made by others. The quality of these depends on the environmental competence of expertise engaged by the recipient country and the co-financier.

Sida may not be able to influence the ToR for the experts contracted by the recipient country or the co-financier, but we feel that feedback from Sida on studies and assessments made in the recipient country might help the recipient country to find competent experts.

In several projects, the appraisal consultant contracted by BITS/Sida pointed out that the end-user, or the borrowing country, lacked the necessary competence and training to manage the environmental issues of the project. Actions taken by Sida are described in section 5.2.3.7.

#### 5.2.3.5 Communication with local groups



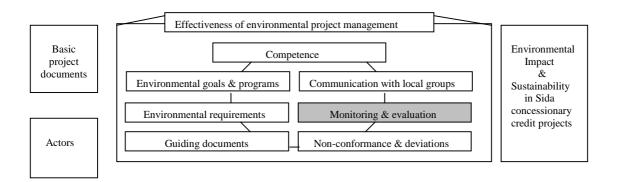
Has BITS/Sida considered the necessity of informing local people and other interested parties?

Elements of awareness training for project personnel and other local groups were present in at least ten projects. In five cases this resulted from a recommendation by BITS/Sida's appraisal expert.

Communication with local groups is a way of increasing the sustainability of a project. It is also in line with the principles of Agenda-21. It is not clear from the guiding documents how Sida is going to implement this principle. In project 14, BITS granted extra funding for information campaigns by NGOs. In this project, Svenska Naturskyddsföreningen gave their opinion to Sida in a letter, where they criticised the environmental impact of the project.

The environmental aspects of a project were mainly described in the appraisal report(s) and used by Sida in deciding whether or not to fund the project. It is not clear from the files whether the appraisal report was used by or distributed to others. In our opinion it is important to communicate the environmental aspects identified in the appraisal report to other actors.

#### 5.2.3.6 Monitoring and evaluation



## 1. Are there adequate procedures for monitoring and reporting?

## Methods & procedures

In the study we have found examples of the use of all the procedures for follow-up mentioned in section 2.6.3.

Documentation of the follow-up phase in the files was generally very sparse and in some projects almost non-existent. The quality of the documentation ranged from small notes in the margin to formal reports. The most valuable information, in our opinion, was found in monitoring reports and evaluation reports. Evaluation reports existed for four projects. Only for projects 8 and 10 did we find regular monitoring reports (see table 7). Sida has a form that is sent to the borrower, in which he assumes responsibility for providing Sida with annual progress reports, as well as a final report when the project is ready for operation.

The methods used to follow up the result of the projects were:

- Visits by BITS/Sida (8, 11, 14 and 15).
- Visit by the Swedish embassy (9 and 14).
- Evaluation by external expertise in follow-up reports (3,7, 9 and 10).
- Final reports/certificates from the project owner/borrower (1, 2, 6 and 4).
- Other (10 and 14).

External expertise was engaged in five cases in the follow-up of the project. External expertise may be local or international groups (8, 10 and 11) or a Swedish consultant (3, 15 and 20). It was not always clear that environment was included in the experts' responsibilities (project 3 and 20). In two projects (10 and 14), experts for follow-up were engaged by other financiers or by the World Bank. In those cases, BITS/Sida was provided with copies of the reports.

Sida or the Swedish Embassy paid visits in the follow-up phase in at least four projects. The purpose of these visits varied. Environment seemed to have been among the issues at least in projects 9 and 14, but it is not altogether clear from the file.

One interesting observation is that final reports from buyer or exporter are only available in four projects.

Sida's level of influence in the follow-up phase

Sparse documentation of the follow-up phase indicates a low level of activity on Sida's part in this phase of project management.

As there were no examples of what would happen if a project failed to meet the project goals, we have no clear opinion concerning Sida's formal possibilities in such cases. If the possibilities for influence are small, the incentive for follow-up will be reduced.

Although Sida's influence at this stage of a project may be small, there is still room for improvement. Sida may, for example, like the World Bank ask for regulatory monitoring reports. The variety of methods used by Sida in the follow-up phase suggests that management would become more efficient if Sida had a systematic procedure for this phase of the project.

#### 2. Have audits been carried out?

There were no examples of environmental audits requested by BITS/Sida among the projects in the study. Audits are a commonly used (and appreciated) management tool in many fields today.

## 3. Are the projects evaluated after finalising and who are informed?

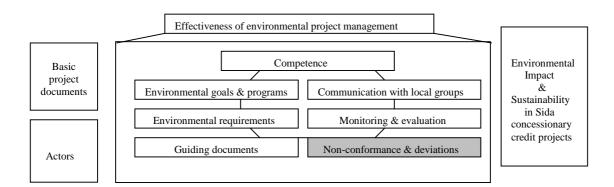
Sida has had final evaluations made of certain projects by independent parties. Four of the projects in the study had been evaluated (3, 7, 9 and 10). The projects to be evaluated are selected by Sida/INEC.

Sida's evaluations should follow guidelines for ToR for the evaluation consultant and guidelines for report design, both published by UTV during 1996. These guidelines give general outlines and do not specify technical details. Only one project (9) was evaluated after the guidelines were established.

There was no common structure for the four evaluation reports, but the environment was included in all of them. According to the task managers for the projects evaluated, management of the finalised reports is decided on a case-by-case basis. The only specific action in the four cases was to distribute the reports to various parties.

In the evaluation of project 9 (Konkan Railways), four recommendations were made on ways of improving Sida's management. Two of the recommendations did not (according to Sida/INEC) prompt any action by Sida and two were already implemented. We found no procedure for establishing how evaluations may be used to improve the management of projects internally at Sida. Failing a clear feedback procedure, the danger is that future environmental management will not benefit from the experience and lessons accruing from finalised projects.

#### 5.2.3.7 Non-conformance and deviations



1. What actions did Sida take when there were indications that the environmental performance of a project was unsatisfactory?

Criticism and suggestions for actions may be found in assessment reports and in monitoring reports. There are also some examples of issues being raised by NGOs (14). It could not always be deduced from the files how Sida dealt with issues in the environmental assessments. The same goes for remarks in the monitoring reports, as issues were sometimes identified that would required the attention of the funding agency.

In five of the projects, issues raised by Sida's expert regarding the recipient's lack of experience and competence led to additional funding for development of training and awareness programmes. There are also two examples from the period 1989-94 where issues identified in the assessment by the expert contracted by BITS did not lead to any further measures:

In project 1, a water treatment facility in China was to use the sludge from the water treatment as a fertiliser in agricultural projects. According to the evaluation by BITS expert, the metal content of the sludge would exceed the official limit for use as a fertiliser. It could not be established from the documents how BITS dealt with this issue.

In project 2, concerning rehabilitation of a lake in China, the expert group recommended comprehensive monitoring to prevent illegal dumping of toxic substances by the industry using the water treatment facility. It has not been possible to find out from the documentation what actions were taken by BITS in this matter.

As already mentioned in section 5.2.3.6, there was no clear procedure for what Sida should do if the project failed to achieve the goals.

2. Has BITS/Sida tried to introduce environmental components or better alternatives from the environmental point of view into the project?

When a need for additional environmental components is identified in the project appraisal, additional funding may be decided.

Usually Sida does not have the competence to propose technical improvements in the projects. Nevertheless, in project 18 it was suggested that environmentally friendly (renewable) fuel options for buses be investigated.

There have been at least two instances of BITS/Sida taking action when they realised that the EIAs made by the recipient country were not complete. This led to additional investigations in project 5 (untied) and an addition to the project plan in project 11 (soft loans).

## 5.2.3.8 Effectiveness in BITS/Sida credit-financed projects

A number of observations have been made in previous sections. Based on our opinion, some general strengths and weaknesses in project management concerning environmental issues were identifiable:

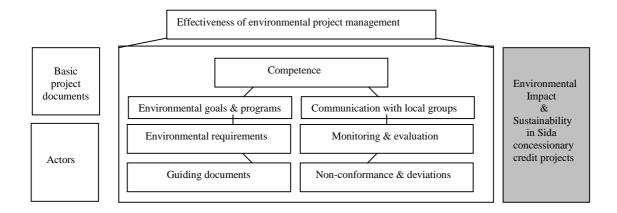
## Strengths:

- Sida always includes an environmental assessment in the appraisal phase of the project.
- Sida has paid attention to the level of the recipient's competence receiver in several projects.
- Sida has made great efforts to select qualified external experts for the appraisal.
- Sida always includes environmental issues in the decision memo.

#### Weaknesses:

- There is no system for measuring environmental management performance in projects.
- The fifth objective is not interpreted in measurable terms and is therefore difficult to apply in project management.
- Environmental guidelines are described in several documents, which makes them difficult for the task manager to use.
- Laws and regulations are frequently not taken into consideration in project management.
- Environmental goals and actions programs are seldom established in projects.
- Our impression is that the appraisal consultant often has his or her main expertise in fields other than that of the environment.
- Sida has no apparent strategy for communicating with local groups.
- Sida apparently has no systematic strategy for dealing with project deviations and follow-up.

## 5.2.4 Impact and sustainability



## 5.2.4.1 Environmental impact assessments

Were environmental impact assessments made?

There were six projects out of twenty where separate EIA documents were prepared. Four of these were drawn up on Sida's initiative, one had been prepared by another financier, and one by the recipient country. In the majority of projects, environmental impact assessments were included in feasibility studies or appraisal reports as mentioned. In project 20, there was no assessment by Sida of the intermediate financier's management of environmental issues.

## 5.2.4.2 Fifth development objective

1. Were the environmental aspects included and analysed in a way relevant to the fifth development objective when assessing the project impact and over all sustainability (both in the request, appraisal and the follow-up phase)?

Environmental impacts covered in BITS/Sida project files
For the interpretation of the fifth development goal, see section 5.1.

Environmental impacts covered in BITS/Sida's project files are presented in *Table 12*. We have assessed the quality of environmental information available for project appraisal using a three-grade ranking. "Adequate information" is defined as enough information to enable BITS/Sida to assess the project regarding all relevant environmental categories.

## Table 12 Environmental impacts covered in BITS/Sida's project files

- ++ Adequate information found for assessment against the fifth development objective or for the initiation of preventive/mitigating action.
- + Information exists but is not sufficient for full assessment of the project, could be more comprehensive.

Blank The category is not covered at all, or only sketchily.

		Project																		
	1989-1994 1995- L									Ur	Untied		oft ans							
Impact categories	1	2	3	4	6	7	8	9	10	14	20 <sup>6</sup>	12	13	15	16	18	5	19	11	17
Use of resources	++	+	+	++	++	+	+	++	++	++			+	++	+	++	+	+	++	++
Human health	+	++	+			++						++	++		++	++	++	++		++
Global warming Depletion of stratospheric ozone				++	++		++		++	++				++						++
Acidification Eutrophication	++	++	+		++										++					
Photo-oxidant formation Ecotoxicological			++	+	++								++		+	++	+	++		
impacts Habitat alterations and impacts on biological diversity		+	+				+	+		+				++	+		+			++

Good background information is a necessary base for environmentally sound decisions. In assessment of the projects such information has to be available at Sida. Ideally, the information available should cover all main environmental impacts of the project. For this reason, *Table 12* and *Table 13* have to be compared. A general conclusion is that the documentation from BITS/Sida files in most cases included the major impacts of the projects.

## Weaknesses found in the request and appraisal phase

From a comparison of table 12 and 13 it can be concluded that there were three projects (3, 7 and 20) where important information was lacking. Almost in all projects there were also examples of one or more relevant environmental aspects not being addressed. BITS/Sida did not explicitly request that missing information should be defined in the appraisal report.

In most projects, there are some chemicals used and some potentially dangerous for health or the environment. Though this was not generally a major impact of the projects, documentation mentioning ecotoxicological impact by chemicals was usually sparse or even non-existent. There are examples in projects 1 and 20 where ecotoxicological impact (sewage sludge, lead from refining and phthalates and cadmium from manufacturing of PVC) may be a problem, due to the risk of spreading dangerous substances. The absence of knowledge may lead to the use of chemicals that frustrate the development ob-

<sup>&</sup>lt;sup>6</sup> Includes several subprojects

jective. This suspicion is backed by an evaluation of Sida by RRV<sup>7</sup>, in which a project in Zambia was mentioned. In that project hazardous chemicals, forbidden in Sweden, had been purchased during 1992.

Weaknesses found in the in the follow-up phase

In the evaluation reports there are also examples of issues that might have been stressed:

In project 3, a number of environmental aspects were not covered, for instance emissions of greenhouse gases, work environment and noise. The critical water situation was commented on in a BITS memorandum, but there were no references in the evaluation report to this issue.

In project 9 (Konkan railways), important environmental assessments were not available until quite late in the project. Targets were established by SKANSKA in the early phase of the project but were not considered. The fact that environmentalist groups delayed the project for 9 months was mentioned but had not resulted in any recommendations such as improved communication with NGOs.

To sum up, the scope of the environmental assessments and the evaluation reports could be more comprehensive for some projects.

2. If the environmental aspects were not included in the analyses, what would an inclusion of those aspects imply for the impact and sustainability of the project?

## Application of fifth development objective

Compliance with the fifth development objective according to section 5.1: A project complies if the environmental advantages outweigh the disadvantages.

## The consultant's assessment

An assessment of the major impact, as far as we can judge them, of the projects in relation to the fifth development objective is presented in *Table 13*. The assessment was made project-by-project; and there were no comparisons between different projects. The environmental impact may be negative, meaning a change for the worse compared to the situation before the project was initiated, or positive in the sense that the project resulted in environmental improvements. Of course, projects may also be neutral to the environment.

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<sup>&</sup>lt;sup>7</sup> RRV 1996:55 "Miljöhänsyn i upphandlingen-en granskning av varuupphandling i biståndet"

## Table 13 Major impacts of BITS/Sida credit-financed projects

- large negative impact on the category

blank little or no positive or negative impact on the category

+ large positive impact (environmental improvement) on the category

	Project																			
					19	89-1	994						19	95-		L	Intie	ed		oft ans
Impact categories	1	2	3	4	6	7	8	9	10	14	<b>20</b> 8)	12	13	15	16	18	5	19	11	17
Use of resources	+	+	+	+	+		+	+	+	+			+	+	+	+	+	+		+
Human health	+	+			+								+		+	+				
Global warming			-	+			+		+	+				+			+	+		+
Depletion of stratospheric ozone Acidification																				
Eutrophication	+	+																		
Photo-oxidant formation			-										+			+				
Ecotoxicological impacts		+																		
Habitat alterations and impacts on biological diversity		+				-	-		-	-				-						+

Based on our opinion (table 13) it is observed that project 3 (coal combustion power plant) and 7 (oil storage) had more negative than positive environmental impacts. Therefore, in our evaluation, it may be questioned if those projects are in line with the fifth development objective. Project 20 includes several subprojects. Three of these may not have been in line with the fifth development objective namely lead refining, manufacturing of sulphur dioxide and manufacturing of PVC, as such industrial activities are known to cause large environmental risks. Project 3, 7 and 20 were approved during 1989-1994.

Two projects (11 and 12) do not seem to have any major impact on the environment.

Eleven projects (1, 2, 4, 6, 9, 13, 16, 18, 5, 19 and 17) were likely to result in improvements of the environment on the whole. Examples of such projects are the building of sewage treatment plants, which means improvements in the water recipient and saving of water resources. Building of railroads means environmental improvements when railroads are used instead of roads for transports.

Four projects (8, 10, 14 and 15) bring several important environmental improvements, but unfortunately also have a number of major negative effects.

Projects approved in 1995 and later were likely to have a positive environmental impact on the whole (with the exception of project 15) or did not have any major impact.

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<sup>&</sup>lt;sup>8</sup> Consists of several subprojects.

Comparing impacts covered in Sida files with the consultant's opinion Comparison of tables 12 and 13 prompts the following observations:

- In the projects that we judged to be out of line with the fifth development objective, several environmental impacts regarded as important for the total outcome were not adequately described in the documentation.
- Among the projects with major negative impacts, such impacts were described in the files for project 15.
- Of the positive environmental impacts, approximately 50 % were supported by relevant information.
- In five of the projects (6, 16, 5, 19 and 17) resulting in major environmental improvements, the documentation is partly focused on environmental categories other than those where improvements took place.

## 5.2.4.3 Guiding documents

1. Were the environmental aspects included and analysed in a way relevant to guiding documents when assessing the project impact and overall sustainability (both in the planning and the follow-up phase)?

## Use of guiding documents

Apart from the fifth development objective, we have identified four Sida documents that should guide environmental assessments and project management (see section 3.3). As Sida and BITS did not merge until 1995, they are only applicable to nine of the projects. *Table 14* describes how much consideration has been given to the guidelines in the nine projects.

Regarding Sida's guidelines for EIAs, "MKB i biståndet", the files are compared with the guidelines for a simplified EIA ("summarisk miljökonsekvensbeskrivning", appendices 2). This document is a practical guideline for the project manager and therefore differs slightly in content from the other three guiding documents. The document focuses on different environmental aspects and how to manage them. In this case, therefore, "Sustainability" is replaced by "Working methods".

The quality of environmental management in the projects in relation to the guiding documents has been assessed according to an alternative judgement using a three-grade ranking and taking into account, not just the EIA/EIS reports but all environmental information available for this study in the project file documents.

## Table 14 Use of guidelines in (selected) BITS/Sida credit-financed projects.

- ++ All or almost all relevant subjects in the guideline are covered by the file
- + Several relevant subjects covered by the file

blank None or few of the relevant subjects covered by the file

	Project Project										
Guiding document	4	5	11	12	13	15	17	18	19		
MKB i biståndet	-,	-,		-		-					
Aspects	++	++	+	+	+	++	+	+	++		
Working methods		+	+		+	+	+	+	+		
Sustainable aid (UNCED)				I ī							
Aspects	++	++	+	++	++	++	++	++	++		
Sustainability			+		+		+	+			
Sida policy for sustainable deve	Sida policy for sustainable development										
Aspects	n.a.*	++	++	++	+	+	++	++	n.a.*		
Sustainability	n.a.*	+	+	+	+	+	+	+	n.a.*		
Sida energy policy											
Aspects	++	++	n.a.	n.a.	n.a.	+	++	n.a.	++		
Sustainability	++	++	n.a.	n.a.	n.a.	++	++	n.a.	++		

n.a. = Not Applicable

n.a.\*= Project initialised before policy went into force, policy therefore not applicable

#### Environmental aspects

Although there was no reference to the guiding documents in the documentation, *Table 14* shows that the majority of important environmental *aspects* (according to the guiding documents) were addressed in the projects, if all the environmental assessments are included. Other actors in the projects have had similar standpoints regarding the environment as BITS/Sida, and therefore highlighted the same aspects in their project management.

## Sustainability (working methods)

The primary objective of *Methods for work* in *MKB i biståndet* is preventive actions. Preventive actions are also an important objective in *Sida's policy for sustainable development*. The low score reflects the conclusions in section 5.2.3.6 – monitoring and evaluation. It was a general observation that there were only a few projects where BITS/Sida responded to new environmental knowledge and modified the project (see section 5.2.3.7). There were several projects aiming at solving a resource problem like a lack of, or an inefficient use of energy. The possible use of preventive actions like energy- and water saving programs for industry had not been fully utilised.

Some important sustainability factors in *Sustainable aid (UNCED)* are: Support to local institutional development.

- Environmental costs in EIA.
- Support to NGOs.
- Population development.
- Mandatory EIA.

In addition to the factors above, Sida's policy for sustainable development includes:

- Phase-out of activities with unacceptable environmental performance.
- Decentralised responsibility.
- Sufficient competence.
- Long-term perspective.
- Prevention better than cure.
- Long-term planning.

Institutional and population development were mentioned in approximately 50% of the projects. Environmental economics was only utilised in one of the project (13). Although there was one example of funding of a campaign, Sida did not generally co-operate with NGOs and other organisations on environmental issues.

Environmental economics is a fairly new technique. In two projects (6 and 15) calculations have been required by BITS/Sida, but have not been prepared. Methods and purposes of the calculations were not specified in the ToR. If the appraisal expert is to make such calculations, there has to be more guidance from Sida. So far, the contracted experts do not seem to have possessed the knowledge for carrying out any work in this field.

The Sida energy policy in particular addresses:

- Domestic energy supply.
- Renewable energy resources.
- Development of a regulatory framework.

Domestic energy and renewable energy sources were addressed in some of the projects. There was no example of development of environmental legislation.

The generally lower scores for the *Sustainability* factors and *Working Methods* in *Table 14*, compared to *Aspects* (except for *Sida's energy policy*) show that aspects received better coverage than sustainability in the project documentation. It must be stressed, though, that our rating is not scientific but based on our own personal opinion.

## Usefulness of Sida guidelines

The guidelines were found to overlap to some extent. As the environmental aspects were not fully covered in any of the guiding documents, it has been necessary for the task manager to have access to them all (which is quite an effort). The contents of the guiding documents would need to be presented to the project manager in a way that makes them more practical and easier to understand and use.

Furthermore, the guidelines are fairly vague about the scope and content of the EIA. For example, areas like construction work are not described. These guidelines need to be more specific and concrete

2. If the environmental aspects were not included in the analyses, what would an inclusion of those aspects imply for the impact and sustainability of the project?

As mentioned earlier, the scope of several assessments was, in our view, too limited. Some aspects were not clearly addressed in the guiding documents, but this finding is not related to any specific document.

Aspects not mentioned include activities linked to the projects, such as increased use of road transport, management of waste at construction and management of sludge from wastewater treatment. The inclusion of environmental aspects of activities connected with the project would increase the possibilities of minimising the environmental impacts and maximising the sustainability of Sida projects.

# 6. Conclusions and Recommendations

The aim of this review was to assess how and to what extent a sustainable use of natural resources and care for the environment have been taken into consideration in the preparation, implementation and follow-up of credit-financed projects initiated in the time frame 1989-1994. In the course of this work, nine additional projects initiated after 1994 were also included, at Sida's request.

Our analysis has been based on the environmental guidelines in use at Sida in the relevant time. It should be noted that Sida's environmental guidelines and procedures have developed considerably since 1994. In particular, Sida has recently compiled environmental guidelines ("Riktlinjer för miljökonsekvensbedömningar i utvecklingssamarbetet", Sida 1998). Where appropriate we make reference to this compilation.

Based on the analysis, conclusions are drawn and recommendations made for improvements and changes to Sida's work practices regarding environmental issues. Although the present analysis is focused on credit-financed projects, many of the recommendations and suggested improvements can also be valid for donor projects in general. The conclusions are structured in accordance with the Terms of Reference.

#### 6.1 Conclusions

What actors are involved in the project cycle and how do they treat the environmental aspects? What are their respective roles and responsibilities? How do they interact with Sida in the process?

- In the case of co-financing with other institutions, we have found no clear rules for the assignment of responsibilities regarding environmental issues. In projects where the World Bank is an actor, the Sida handling is strongly influenced by the World Bank's environmental procedures and policies.
- Actors apart from Sida exerting major influence on the projects are buyer, exporter, recipient
  country government and the World Bank. Environmental authorities in the recipient country or in
  Sweden do not seem to play a significant role in the credit-financed projects (according to the
  documents) and do not interact with Sida in the process.
- We have not been able to find cases of Sida stating environmental preconditions for the credits.
   This is true both of projects where Sida is the sole financing agency and of intermediate or co-financing arrangements. Such preconditions could make Sida's handling of the credit application more efficient and safeguard the environmental benefits of projects, but would necessitate Sida informing potential applicants of the preconditions beforehand.
- A number of departments at Sida may be involved in the handling of a credit project. Co-operation
  means divided project management or an advisory role for some departments. For advisory cooperation we could not find any clear assignments of responsibility in environmental matters nor
  any procedure describing how to interact and use each other's knowledge and competence.

What kind of environmental principles have guided environmental assessments and precautions in Sida's management of the projects or the management of the project as a whole? How has Sida interpreted the guiding documents?

- Sida's overriding environmental objective is the Fifth Development Objective. To assess whether
  projects comply with the Fifth Development Objective it is necessary to translate the objective into
  operational terms. The limited number of references to the Swedish Fifth Development Objective
  indicates difficulties in this respect. We have not been able to identify any such attempt by Sida
  (handled in the Sida 1998 Manual).
- There are few references to existing Sida environmental guiding documents in projects after the merger of Sida and BITS, which indicates a lack of administrative communication/leadership.
- During the appraisal phase there seems to have been little attention paid to legislation and regulation issues. Environmental legislation must be a component in the appraisal report (and in ToR), otherwise it may be overlooked in project management, which in turn means a potential risk of non-compliance. This is mentioned in the Sida 1998 Manual, but should be stressed.
- It appears that Sida has not paid sufficient attention to global conventions and treaties in the projects reviewed in this study. Global conventions signed by Sweden or the Recipient country should be considered in the same way as national legal issues (global conventions and treaties described in the Sida 1998 Manual).

Are environmental aspects expressed as explicit goals for the project? Have environmental action programmes been introduced in the project?

- In the project documentation there is no clear distinction between the environmental aspects that have been identified and explicit environmental goals.
- The environmental goals that we have identified are seldom expressed in a quantified manner, and so there is no good basis for mitigation measures and subsequent follow-up.
- In most cases involving different actors (e.g. Sida and Sida's experts, the Swedish Government, cofinanciers, exporters and buyers) the responsibility for the establishment of environmental goals and action programmes related to the project is not defined. It should be stressed that the project owner must establish such goals and programmes for Sida to scrutinise.
- The environmental goals and action programmes are seldom included in the formal agreements but exist as side letters and other project documentation. The formal significance of such documentation is not defined.
- The technical data for equipment described in the contracts between the exporter and the buyer
  also in many cases defines the environmental performance. Such specifications can thus to some
  extent be regarded as environmental ambition levels. Given the complexity of evaluating such
  specifications, Sida personnel cannot be expected to fully appreciate the environmental consequences.
- The LFA method can be a suitable tool for Sida to develop, analyse, prioritise and incorporate environmental targets and goals into projects. The use of LFA as a tool for optimising environmental improvement should be further evaluated and enhanced.

Are personnel with adequate competence available for environmental assessments in the projects? Has attention been paid to the environmental competence of recipient organisations/users and other interested parties?

- Sida has in our opinion a limited in-house capacity for environmental assessments and management and relies to a great extent on external experts.
- In recent years working groups for project management have been established with members from Sida/INEC and other departments. The formation of such groups with different competence profiles should enable Sida to exchange information more efficiently, which should improve Sida's management of environmental issues.
- There are cases in our review where the external expert(s) contracted by Sida were specialised in other fields than the environment and knowledge or experience of environmental issues was not mentioned in the CV. This may lead to environmental issues being overlooked. If a project contains important environmental aspects, Sida should specify the environmental requirements for personnel assigned to it.

Has Sida considered the need for information to local people and other interested parties?

• Communication between the project and local groups is a very important tool for increasing the possibility of success and enhancing the sustainability of the project. This should be the responsibility of the project owner. Sida's strategy on this issue is not clear from the projects in the study. The position is clarified in the Sida 1998 Manual

Are there adequate procedures for monitoring and follow up?

- Brief and in some projects almost non-existing documentation of the follow-up phase might indicate a low level of activity on Sida's part in this phase of project management.
- In projects where the World Bank or some other external organisation has been involved, there seems to be a higher level of regular monitoring in the follow-up phase of the projects.

What actions does Sida take when the environmental principles are not followed in the project? Has Sida tried to introduce environmental components or better alternatives from the environmental point of view into the project?

- Among the projects studied, there have been cases of additional environmental components being
  identified in the project assessment and additional funding being awarded. On the other hand,
  there have been projects where the expert has identified potential risks and where no measures
  have been found. It is important that Sida should have the means and possibilities of reacting to
  non-conformances and deviations in the project.
- Our evaluation indicated non-compliance with the fifth development objective for three projects, in that they had more negative than positive environmental impacts. Those projects were approved during the BITS period

Were the environmental aspects included and analysed in a way relevant to the guiding documents when assessing the project impact and overall sustainability (both in the request, appraisal and the follow-up phase)? If the environmental aspects were not included in the analyses, what would an inclusion of those aspects imply for the impact and sustainability of the project?

- The majority of projects in the survey have been supported by some kind of EIA. There is one case involving environmental sensitive projects (IFCT Phase I) where no assessments have been made of the financier's capability to handle environmental issues
- Only about half of the environmental improvements obtained by the projects had been supported
  by sufficient documentation in the environmental assessments. In almost all projects there were examples of one or more environmental aspects not having been addressed, which clearly introduces
  an element of risk into the project.
- It is our general opinion that environmental aspects receive better coverage than factors relating to sustainability, i.e. "prevention better than cure", support to NGOs and development of regulatory framework.
- Documentation covering eco-toxic impacts of chemicals was usually very brief or non-existent.
- Environmental economics is a quite new technique and the contracted experts do not have experience in this field.

## 6.2 Recommendations

How can the fulfilment of the fifth Swedish development objective be assured in future projects financed by credits?

Which aspects will have to be considered more exhaustively in future project evaluations and which ones have been assessed satisfactorily?

General recommendations for Sida:

- Sida should analyse the Fifth Development Objective and translate it into operational environmental objectives. This has now largely been done in the Sida 1998 Manual.
- Sida should review and integrate its environmental policy into guidelines for the handling, evaluation and management of Credit-Financed and Donor Projects. This has to some extent been done in the Sida 1998 Manual, but we suggest that Sida compile a checklist of environmental requirements that have to be fulfilled in order for Sida to participate in the financing of a project. Sida should make the requirements known to all prospective applicants for credit financing and also make it known that Sida will not consider an application unless the appropriate environmental documentation is in place.
- We recommend Sida to require, and develop the appropriate guidelines for obtaining, a more detailed analysis of possible environmental impacts caused by chemicals.
- We recommend that Sida refer to the fifth development objective and the relevant guiding documents in ToR for the contracted expert for the appraisal and evaluation.

#### Recommendations for Sida/INEC:

- Based on the EIS/EIA and the appraisal report Sida/INEC should make sure that environmental
  goals and indicators are included in the LFA. Conditions or recommendations at the time of approval should introduce environmental requirements by Sida. Environmental requirements could
  constitute part of the loan agreement.
- Always include an assessment of the environmental competence of the recipient in the appraisal report, in order to quantify the need for input to raise their competence
- Sida/INEC should standardise the format for the environmental section of the decision memorandum. It is recommended that the decision memorandum describe the environmental requirements for the project. It should furthermore define the need for project monitoring with respect to environmental aspects and sustainability. The Decision Memorandum should also include measures to strengthen the institutional capacity in the Recipient Country.
- Sida/INEC should (on the basis of information supplied by the project owner) monitor compliance with the environmental targets suggested in the decision memorandum and LFA. This should be done continuously during follow-up.
- The project owner should be required to report any deviations from the predefined environmental indicators and objectives occurring in all phases and suggest corrective actions and improvements in the projects. Working groups within Sida/INEC should have within their remit the task of discussing these deviations and recommending corrective/improvement actions.
- Sida/INEC should request reports both from the recipient (buyer) and the exporter to assess whether the environmental indicators and objectives have been achieved when a project is completed. This report should be included in the final report from the buyer and/or the exporter.
- Sida/INEC should use evaluation reporting (compiled by the project owner) more frequently to
  measure project results and sustainability. Compliance with environmental indicators and targets
  should also be evaluated. We suggest that a formalised procedure be developed for managing the
  recommendations from the evaluation report. Another suitable tool might be environmental audits.
- In the appraisal report, Sida/INEC should require that the contracted expert clearly gives a "YES" or "NO" recommendation for the project from an environmental point of view. A conditional recommendation can also be accepted, provided there are clear recommendations as to which measures have to be implemented in order to make the project environmentally acceptable.

What should Sida's and other actors' roles and responsibilities be in the future credit-financed project scheme, with regard to environmental aspects?

#### Recommendations for Sida/INEC:

- In the preparation of Credit-Financed Projects, Sida/INEC should, when assessing important environmental aspects, strive to obtain a broad understanding of the issues and wherever possible involve the appropriate national and regional environmental authorities, NGOs and other sources.
- In projects involving other financiers (except the World Bank), Sida/INEC should strive to have
  the Sida environmental guideline accepted as a minimum level to regulate the environmental issues. Wherever possible this should be regulated in the agreement between Sida and the other financier(s).

- When funding from Sida/EKN is provided through another agency/financier, Sida/INEC should assess the financiers' capability and competence regarding environmental issues before the funding is approved.
- Sida/INEC should inform AB Svensk Exportkredit and other financiers of the Sida environmental guidelines for the purpose of including environmental issues in the loan terms.
- To maximise the use of internal competence, Sida /INEC should define responsibilities and roles regarding advisory co-operation with other departments in project appraisal and evaluation.
- Sida should always inform the exporter (and the buyer) of Sida's environmental policies and the Sida environmental requirements, for the purpose of having them implemented in the commercial contract.

Design of Environmental Impact assessments concerning projects financed by Credits.

#### General recommendations for Sida:

- Sida should require the project owner to put emphasis on sustainability factors such as "prevention better than cure", support to NGOs and development of regulatory framework.
- Sida's requirement of the project owner should be that the EIA framework should have a life cycle approach, including all activities related to the project like the construction phase and the operational phase (production of electricity, transports, waste etc.) (covered in the Sida 1998 Manual).
- Sida should design ToR for the environmental assessment to be wide enough to describe also indirect effects as a result of the project (covered in the Sida 1998 Manual).
- Sida should require the use of and the risks associated with chemical substances needed for the project to be described in the EIA.

#### Recommendations for Sida /INEC:

• Sida/INEC should, whenever possible, require the Recipient Country's resources to be involved in the development of the EIA (to some extent covered in the Sida 1998 Manual).

How are projects to be designed so as to result in the development of institutional capacity, with regard to environment, in the recipient countries? This is to include a proposal for a design of the lines of credit such as to provide incentives for recipient countries to invest in the environment.

- Experience from many Credit-Financed Programmes has shown that the development of institutional capacity, "Capacity building", is a prerequisite for successful implementation of projects and above all for a sustainable effect from the project. As a general view, long-term capacity building is preferred to addressing short-term performance improvement. There seems to be consensus that in order to obtain a sustained effect, capacity must be built on several levels. The capacity must be improved in Government Institutions (e.g. Environmental Departments), in Resource Centres, in Industry Associations and in Industry in the Recipient Country. Examples of how local expertise can be used/developed are:
  - in connection with the initial EIAs (local consultancies), in developing the environmental guidelines for the project (Environmental Ministries, NGOs, other local organisations) in the design and engineering of the project (local consultancies);

- in the preparation and implementation of training programmes (local consultancies) and in the monitoring and analysis of the environmental impact of the project (local Analytical Laboratories, local consultancies).
- To increase the recipient's environmental competence, Sida /INEC should give feedback to the recipient country regarding Sida /INEC's assessment. Ensure that NGOs and authorities are also invited to join training programmes.

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Sida: "Sida's evaluation policy" (1995).

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Sida: Form of Letter from the Borrower to Sida (n.d.)

# Appendix 1

# Terms of Reference for the Evaluation of Environmental Aspects in Concessionary Credit Projects with Swedish Funding 1989-1994

## 1. Background

Concessionary credits were introduced as an instrument of Swedish Development Cooperation in 1981. They consist of funds borrowed on international capital markets which are combined with funds from the Swedish development assistance budget extended on soft terms. The combination of market and development assistance funds opens up the possibility of supporting large-scale development projects, such as investments in basic infrastructure. The overall objectives of the concessionary credits are the same as for Swedish development assistance as a whole. In particular, the scheme was introduced to promote economic development and to enhance cooperation between Sweden and developing countries, hence the scheme is tied to Swedish procurement.

In the period 1989-1994 the former BITS (the Swedish Agency for International Technical and Economic Cooperation) financed approximately 100 projects totalling an amount of more than MSEK 9,500 through concessionary credits. Swedish financed credits are usually granted with a 35% concessionality, which is equivalent to the amount claimed from the Swedish development assistance budget. Projects granted concessionary credits range from large-scale infrastructural projects of up to MSEK 1,400 to small-scale projects of approximately MSEK 2 each.

During the years 1989-1994, credit financed projects could be found in nine different sectors or categories, i.e. industry, environment, energy, telecommunication, mining, physical planning, national development banks and transport.

The "Helsinki Agreement" (forming part of the "Consensus Agreement" within the OECD), which came into force as of February 1992, limits the use of tied concessionary credits. The credits are not to be used for the financing of projects deemed "commercially viable". As a consequence of this agreement, large credits to all industrial projects, most telecommunication projects and some energy and transports investments are excluded.

The method of working with the concessional credit scheme is based on the concept of recipients being responsible for the technical and environmental competence necessary for the project. During the period to be studied, the design of the Swedish concessional credit scheme can be described as a reactive system in the sense that Sweden, through Sida, may only choose between saying yes or no to financing the project. The possibilities of designing the projects from the beginning as well as demanding changes in the design of the projects are limited.

In order to discuss the role of credits as an instrument in future Swedish development assistance, Sida conducted an analysis in 1995/96. This resulted in a proposal to the Swedish government on new forms for financing Swedish development assistance and increased flexibility in the use of present financing instruments.

## Concessionary credits and the environment

Since the fifth Swedish development objective was established in 1988, more emphasis has gradually been placed on the environmental aspects of projects financed through the development assistance budget. The guidelines for Environmental Impact Assessments (EIA)<sup>1</sup>, that were applicable to SIDA's projects are now applicable to the concessional credit scheme as well.

During the period in question (1989-1994) BITS did not have any written guidelines for the use of EIA's or the equivalent. BITS was of course implicitly subject to the fifth development objective, international environmental conventions, government directives etc.

A preliminary study undertaken to form the basis for this evaluation shows that almost half of the 34 examined appraisals of projects granted in 1989, 1991 and 1993, have not included any comments about the environment. Of the appraisals mentioning environmental aspects, almost 90% are brief in their discussions.

## 2. Purpose of the Evaluation

The purpose of the evaluation is to assess how and to what extent a sustainable use of natural resources and care for the environment have been considered in the preparation, implementation and follow-up/evaluation of projects financed by Swedish concessionary credits. Based on this assessment, the Consultants are to make recommendations and develop best practices for the future integration of environmental aspects in the concessional credit scheme.

## 3. Selection Criteria for Projects to be included in the Evaluation

The procedures for the integration of environmental considerations in the projects, will be evaluated on the basis of approximately 20 projects, selected by the consultants according to the following selection criteria:

The 20 projects are to represent projects from different sectors, amongst those;

- the energy sector;
- the environment sector
- the national development bank sector.

Projects are to be selected in order to include different actors in the process:

- private and governmental actors in both donor and recipient country,
- other donors,
- the World bank,
- international development banks,
- national development banks,
- consultants/implementing agencies,
- end-users.
- other actors.

The projects to be selected are those which can be expected to have *substantial impact on the environment*. The *credits* (in terms of size etc.) are to be *representative* of the support to the sector. The projects are to be *completed or nearing completion*.

<sup>&</sup>lt;sup>1</sup> SIDA/Sida, (1991, 1995). "Riktlinjer för miljökonsekvensbedömningar i biståndet".

As the Consultants are to develop *best practices* for integrating environmental aspects in credit projects, *projects that are interesting from such a point of view* may also be included.

## 4. The Assignment

The starting point of the evaluation is to assess how and to what extent the environmental aspects have been considered in the different stages of the project cycle (i.e. planning, implementation and follow-up) of the projects financed by concessionary credits. Based on the assessment, the Consultants are to give recommendations and develop best practices for the future. The Consultants are to assess the following issues:

#### Actors

What actors are involved in the project cycle and how do they treat the environmental aspects? What are their respective roles and responsibilities? How do they interact with Sida in the process?

#### **Effectiveness**

Are environmental aspects expressed as an explicit goal for the projects? Are environmental aspects included in the analysis of the projects' effectiveness (in both the planning and follow-up phase)?

## Impact and sustainability

Were the environmental aspects included and analysed in a way relevant to the fifth development objective when assessing the projects' impact and overall sustainability (both in the planning and follow-up phase)?

If the environmental aspects were not included in the analyses, what would an inclusion of those aspects imply for the impact and sustainability of the project? Were environmental impact assessments made?

## Specific issues to be considered in the project cycle

Were the recipient countries' laws, regulations etc with regard to environmental aspects, taken into consideration in the appraisals?

Which aspects have to be considered more exhaustively in future project evaluations and what aspects have been assessed satisfactorily?

## Key factors for success or failure

What factors are important for success or failure in considering the fifth development objective in the handling of concessionary credits?

## Other donors' practices

In order to identify best practices in the handling of environmental aspects in projects financed by concessionary credits, one aspect that the Consultants are to look into is the practices of other major donors in the field of concessionary credits.

#### Recommendations

The Consultants are to give recommendations on:

- a) How the fulfilment of the fifth Swedish development objective can be assured in future projects financed by concessionary credits.
- b) What Sida's and other actors' roles and responsibilities should be in the future concessional credit scheme, with regard to the environmental aspects.

- c) How to design the projects so that they result in development of institutional capacity, with regard to the environment, in the recipient countries. This recommendation is to include a proposal for a design of concessionary lines of credit such as to provide incentives for recipient countries to invest in the environment.
- d) Design of Environmental Impact Assessments concerning projects financed by concessionary credits.

The recommendations are to be used by the Consultants as a base for proposals on best practices, with regard to the environmental aspects, when planning, implementing and following-up projects in future concessional credit schemes.

## 5. Methods, Evaluation Team and Time Schedule

#### **Methods**

The evaluation will be carried out mainly as a desk study based on available documentation on the selected projects such as the Sida Report on Concessionary Credits (1996), terms of reference, appraisal reports from Sida and other donors to the projects, decision memoranda as well as the preliminary study written by Lisa Segnestam etc. The Consultants are to interview relevant persons. In order to identify best practices for the integration of environmental considerations in projects financed by concessionary credits, the Consultants are to look into the practices of other major donors in the field.

The evaluation is to be executed in two phases. The evaluation team will start with an inception phase, before embarking on the main phase. The inception phase will lead to an elaborate proposal for a methodological approach, in which the concepts to be used are clearly defined and in operation. The Consultants are to present an outline for the collection and analysis of the data, including a presentation and discussion on which projects the Consultants have selected for the evaluation. The inception phase will lead to the presentation of an inception report.

#### **Evaluation Team**

The evaluation team will consist of professionals with knowledge and experience of:

- i. environmental issues (profound and broad experience in order to cover the various issues raised above in the terms of reference),
- ii. environmental impact assessments
- iii. institutional development, especially in developing countries
- iv. economic evaluation of environmental consequences

Knowledge of concessional credit schemes is an advantage.

The team leader will have considerable experience as team manager.

#### **Time Schedule**

The evaluation is planned to begin in September 1997 and is to be completed no later than 15 March 1998.

## 6. Reporting

The inception phase will lead to the presentation of an *inception report* with a methodological approach and an outline for the collection and analysis of data.

Four copies of the *draft report* are to be submitted to the Department of Evaluation and Internal Audit at Sida no later than 28 February 1998. Within two weeks after receiving Sida's comments on the draft report, a *final version* in four copies and on diskette is to be submitted to Sida.

The evaluation report shall be written in English and should not exceed 75 pages, excluding annexes and executive summary. The outline of the report must conform to Sida Evaluation Report - a Standardized Format. Subject to decision by Sida, the report will be published and distributed as a publication within the Sida Evaluations series.

The evaluation report shall be written in Word for Windows or a compatible format and should be presented in a way that enables publication without further editing.

The evaluation assignment includes production of a summary according to the guidelines for Sida Evaluations Newsletter (Annex 1) and the completion of Sida Evaluations Data Work Sheet (Annex 2). The separate summary and a completed Data Work Sheet are to be submitted to Sida along with the final report.

The Consultants will be asked to present their main findings and recommendations in the evaluation in a *seminar* at Sida, Stockholm.

# **Appendix 2**

## **Project description**

## 1. Gao Bei Dian wastewater treatment plant (China).

The World Bank is supporting an environmental programme in Beijing. One part of the programme is to increase wastewater treatment capacity. The project deals with the second phase (chemical and mechanical treatment) of the facility in Gao Bei Diang. When completed, the facility will be the largest of its kind in China. Credit amount SEK 147,305,000 (94-04-20).

## 2. Kun Ming sewage treatment plant (China).

UNEP as well as UNESCO and experts in China have found Lake Dian Chi to be heavily polluted. To improve the water quality, the nearby city of Kun Ming is installing a large facility for the treatment of sewage water. The project is aimed at treating of the remaining effluents from the city. Credit amount SEK 23,547,125 (93-07-06).

## 3. Refurbishment of three old thermal power plants (Zimbabwe).

Zimbabwe's energy situation has been difficult for a long time. Different aid organisations have been involved in the project in different phases (DANIDA, ADB and WB). To improve the situation, three coal-fuelled power plants are to be upgraded. The modification will mean improved efficiency and therefore lower environmental impact. Credit amount SEK 98,817,000 (93-06-30).

## 4. Greater Accra and Volta region electrification project (Ghana)

To improve the power situation in Ghana, WB initiated the "Fifth power project". The project studied is one of several on the WB programme. The purpose is to provide electricity to a large number of villages, thereby reducing the present use of fuel wood and small-scale thermal power generation. The project involves building a transmission network for 60 villages. Credit amount SEK 63,540,000 (95-06-13).

#### 5. Ha Tinh 500 kV substation (Vietnam)

The World Bank is preparing a "Transmission and Distribution Development project", aimed at developing Vietnam's high-voltage network. WB turned to Sida for funding of parts of the project. The project funded by Sida comprises transformer stations and transmission lines. Credit amount SEK 112,000,000 (97-09-15).

## 6. District heating, Dalian (China)

This project was initialised by the local government in Dalian to improve the environmental situation in the province. The purpose of the project was to provide district heating to the city (instead of the present use of small-scale heating generation based on low-quality coal and causing heavy pollution). The project comprises a central heating facility and a distribution system. Credit amount SEK 25,540,000 (93-03-24).

## 7. Building of underground fuel storage caverns (Zimbabwe)

Due to the unstable situation at the time, Zimbabwe needed increased storage capability for oil products. Based on a pre-study, a rock cavern design was chosen. The construction work was monitored by a consultant agency funded by NORAD. The World Bank has also evaluated the project. Credit amount SEK 241,500,000 (91-07-25).

## 8. URI hydropower project (India)

The Indian authorities have the long-term objective of reducing power shortage in the area and moving from fossil to renewable energy sources like hydropower. The intention is to construct and deliver a turnkey hydropower plant. The project is a part of a project approved by the World Bank. The total project also includes funding from NIB and Great Britain. India approached Sida during 1988 and a Swedish/British consortium was awarded the contract. Credit amount SEK 1,400,000,000 (89-12-15).

## 9. Konkan Railways (India)

The Indian authorities have identified the railway between Bombay and Mangalore as a missing link in a nationwide railway network. To reduce construction time for the railway, Sida supported a project involving the use of modern tunnelling construction equipment. Credit amount SEK 21,752,481 + SEK 16,652,277 (91-03-20).

## 10. Muela hydropower (Lesotho)\*

This project covers Swedish involvement in the construction of the Muela hydropower project. The Swedish part of the project is to deliver turbines and generators. The objective of the project is to build a large hydropower system. There are a number of other aid agencies involved in the project, namely ADB, EDF, EIB and CDC. Credit amount SEK 190,000,000 (93-10-08).

## 11. Rural employment sector programme, RESP III (Bangladesh)

The main purpose of the project is to support increased employment rate and incomes in rural areas. The project started in 1989 and RESP III is a continuation of the previous programmes. The project involves development of infrastructure and roads in rural areas. Credit amount SEK 40,000,000 (96-10-06).

## 12. Noise protection Shanghai (China)

Noise has become a major problem in the city of Shanghai, and the city has recently approved noise limits. To reach this limit, it is necessary to install noise protection equipment along roads and at factories. The intention is to provide a company manufacturing noise protection equipment with an automated production line. Credit amount SEK 15,000,000 (97-02-28).

#### 13. Public transports, Dakar (Senegal)

The existing bus fleet in Dakar's public transportation system is old and worn out, and there is a shortage of spare parts. The purpose of the project is to provide the public bus company with new buses, spare parts and training for the personnel. Another objective of the project is for the new buses to increase the number of passengers. Credit amount SEK 81,600,000 (97-04-01).

#### 14. Hydropower Panque (Chile)

To meet the increasing demand for electrical power in Chile, a number of projects have been formulated. The most cost-effective way of meeting part of the demand is to exploit the Biobio River, and the purpose of this project is to construct an underground hydropower plant. One of the financiers of the project is IFC. Credit amount SEK 225,000,000 (94-03-28).

## 15. Hydropower, Song Hinh (Vietnam)

Demand for electrical power has increased during the 80s and 90s, and catering to this demand is a priority concern of the Vietnamese government. A pre-study for a hydropower facility was done during 1985 and approved by the Vietnamese authorities in 1986. Construction work started in 1991. Sida, NIB and NDF are financing the project. Credit amount USD 31,206,923 (96-11-14).

## 16. Sewage treatment Nabuel and Hammamet (Tunisia)

The Tunisian government has a privatisation programme for environmental services in the country. One task under this programme is to rehabilitate a sewage treatment plant. The project comprises rehabilitation of the plant as well as a training component. Credit amount SEK 12,700,000 (96-06-03).

## 17. 132 kV substation at Ghinda (Eritrea)

To establish a more reliable supply of energy, Eritrea has requested funding for a transformer station. The purpose of the station is to connect a transmission line leading from the capital, Asmara, to the town of Massawa. Credit amount SEK 18,000,000 (97-12-11).

## 18. Public transport project (Jamaica)

The public transport system (buses) in Kingston, the capital of Jamaica, is old and unequal to existing needs. Based on a World Bank study, a new government transportation policy was adopted. A public company was formed to improve the standard of public transport. The project involves purchasing 350 buses. Credit amount SEK 80,900,000 (97-05-06).

## 19. Second bulk supply point Accra (Ghana)

The supply of electricity to the capital Accra has suffered from total blackouts a number of times. The government, together with the World Bank, suggested building a second transformer station to secure the power supply. The project involves building a transformer station Credit amount SEK 63,000,000 (95-06-16).

## 20. Industrial Finance Corporation of Thailand (Thailand)

To support small and medium-sized enterprises in Thailand, the national development bank has received funding from Sida. The purpose of the credit is to enable these companies to purchase equipment and capital goods for infrastructure projects from Sweden. The development bank is funding a large number of enterprises in Thailand. Credit amount USD 10,000,000 + 20,000,000 + 10,000,000 (90-08-23/93-08-09).

# **Appendix 3**

## **Template for Assessment of Credit-Financed Projects**

## 1. Project information

- Identification number
- Date of loan agreement
- Credit amount
- Short description

## 2. Basic documentation

- 1. Which steps in the process of approval of concessionary credits will include elements of environmental information, assessments or requirements?
- 2. What kind of documents is particularly related to environmental issues?
- 3. What kind of documents will include environmental assessments?

## 3. Actors

- 4. How are responsibilities for environmental issues defined in projects which include co-financing organisations?
- 5. What external actors are involved in the project cycle and how do they treat the environmental aspects?
- 6. What are their respective roles and responsibilities?
- 7. How do they interact with Sida in the process?
- 8. What kind of environmental principles guide the external actors?

## 4. Efficiency in environmental management procedures

#### 4.1 Guiding documents

- 9. What kind of environmental principles have guided environmental assessment and precautions in BITS's/Sida's management of the project or in the management of the project as a whole?
- 10. How has BITS/Sida interpreted the principles of the guiding documents?

## 4.2 Environmental legislation and other requirements in recipient countries

- 11. Have the environmental legislation or other environmental principles in recipient countries been identified?
- 12. Have the environmental legislation or other environmental principles in the recipient countries been considered in the project?
- 13. Have international agreements been identified or considered?
- 14. Are there other environmental requirements that should be paid attention to?

## 4.3 Targets/criteria/conditions

- 15. Have targets/criteria/conditions related to environmental aspects been introduced in the project? By whom?
- 16. Have environmental action programmes been introduced in the project? By whom?

#### 4.4 Procedures

17. What kind of procedures does BITS/Sida have for dealing with environmental issues?

## 4.5 Competence

- 18. Are personnel with adequate competence available for environmental assessments in the projects?
- 19. Has the environmental competence of the recipient organisations/users been paid attention to in the projects?

#### 4.6 Communication

20. Has BITS/Sida considered the need for information about environmental effects to local people and other interested parties?

## 4.7 Follow-up and evaluation

- 21. Are there adequate procedures for monitoring and reporting?
- 22. Have audits been carried out by BITS/Sida?
- 23. Are the projects evaluated after finalising?
- 24. Who are informed about the results from follow-up and evaluation?

## 4.8 Initiatives and corrective actions from BITS/Sida

- 25. What actions does BITS/Sida take when the environmental principles are not followed in the project?
- 26. Has BITS/Sida tried to introduce environmental components or environmentally preferable alternatives into the project?

## 5. Impact and sustainability

- 27. Are the environmental assessments adequate and of good quality?
- 28. Which are the major impacts according to the assessments made and our own judgement?
- 29. Will the project be sustainable from the environmental point of view?

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