TABLE OF CONTENTS PART 2

INTRODUCTION

This advice document (part 2) is prepared by a working group of The Netherlands Commission for EIA and should preferably be used together with part 1 of the advice. All the instruments which have been described in this document have been used to answer the following questions:

- How, where and when are these instruments applied by the embassies and the DGIS?
- In which phase of the activity cycle can these instruments be applied?
- How can tuning be achieved and is integration of these instruments possible?

The results of this assessment are provided in part 1 of this advice.

NON-THEMATIC INSTRUMENTS

SECTOR APPROACH

1. Description

The sectoral approach[1]] means that the recipient - generally, but not necessarily, the government - takes the lead in determining the national development strategy, and its translation into policy for the various sectors. The government then draws up a *sectoral policy document* to which it commits itself, along with politicians and other stakeholders. This document should indicate the roles and tasks of the government and other parties in the sector concerned.

If a policy of reform is to succeed, long-term *political will and public support* will be crucial. Consultation with politicians and policy makers, civil society and private sector organisations, experts, researchers and other key figures therefore constitutes an integral part of the policy process.

Institution building (and reform) at the appropriate ministries and among bodies in society that are involved in implementation, together with administrative reform and the fostering of *good governance*, are crucial to the implementation process and are therefore also an integral part of the reform programme. This applies both to the phase prior to reform and the reform phase itself.

The Ministry will be engaging in a *dialogue* with all partners concerned to reach initial agreement on the key policy principles and implementation strategies. Both the sectoral ministry directly involved and the ministries of finance and planning, as well as civil society organisations, will be involved from an early stage. Priorities will be set on the basis of a *sector analysis* drawn up or commissioned by the government. A working definition for each sector will be decided in a dialogue, by establishing what is linked to what. The definition of sectors and the way in which the international community can support them will therefore be country-specific.

A critical condition for the success of such an approach is a willingness to ensure *coordinated action by donors*, led by the government. This enhances synergy and effectiveness and prevents the fragmentation of efforts and the extra burden on government caused by differing procedures. *Agreement*s with the government and, where appropriate, with private-sector and civil society organisations on the substance, implementation, procedures and funding of the reform programme form the basis of coordinated donor support. Such agreements are long term, and therefore cover several terms of government in both the recipient and the donor country. This is also the core of the argument for better, more conscious, active and critical coordination with the work of the World Bank.

Donors can support this process by: (a) providing co-financing on the basis of joint agreements, with flexible budgets including indicative allocations over a long period; (b) supporting the leading role of government and capacity building for other actors; (c) helping to monitor how the policy plan is implemented; (d) inputting their experience and expertise if required; and (e) introducing innovations in approach or policy reform.

In this connection, project support will be limited to activities that are compatible with this framework in both policy and operational terms. The sectoral approach allows for temporary project support if: (a) it is additional and offers scope for innovations that support the sectoral

1 This description is based on a paper presented by the Minister for Development Cooperation at the Ambassadors conference, 12 January 1999.

policy; (b) it provides feedback for the policy dialogue; (c) it serves as a precursor to possible future sectoral support if the government is not yet ready for it; and (d) it helps the government or other actors to gain experience and strengthen their capacity.

Nevertheless, this is in essence the direction we wish to take: away from broad-based but "mottled" portfolios that we and others have developed in an ad-hoc way, towards more coherence, more critical mass and greater goal-orientation, with a longer-term perspective on aid. A sectoral approach also provides an assessment framework, for both donors and recipients, as regards mutual conditionality and the results of aid.

2. Objective

The sector approach aims to bring greater cohesion to both the Ministry programmes and those of recipients, enhancing the quality and impact of aid.

3. Procedure, process & methodology

The basic principles:

(i) Poverty reduction remains the main aim.

(ii) Micro-macro approach: poverty is a micro-concept, a phenomenon that affects individuals and households, and the situation as regards poverty in any particular country will have to be analysed first at that level. On the other hand, however, aid tends to be more efficient and effective at higher levels. The task is thus to keep a constant watch over the micro-macro situation, keep the analysis and identification of problems at micro-level up to date and guard against the irrelevant use of instruments.

(iii) Donor coordination; Recipients are confronted with a multitude of donor interventions that should be coordinated. The different procedures that donors use place an excessive burden on the recipient's already scarce capacity, putting its own programmes in jeopardy. In many cases this merely produces a patchwork, and one full of holes at that.

(iv) Local ownership of aid interventions is an integral part of this approach. For interventions to be sustainable the recipient government must manage the policy side of development programmes in its own country. If not, the whole exercise will be pointless and the desired change cannot possibly be sustainable.

(v) The complement of this is the shift from project to programme aid. If ownership of and responsibility for the content and management of development programmes are to lie with the recipient then it will be possible to provide donor support from an ever-increasing distance - ultimately using general instruments such as macro or sectoral budget support. This will have to be achieved step by step and, again, on the assumption that active attempts are made to achieve good donor coordination.

Any attempt to enhance the quality and impact of aid will have to be based on these principles. However, we know from experience that this is likely to be no easy task. It is also clear that the approach will to a large extent have to be country-specific, and sector-specific within countries. The macro economic and macro-social context differs from country to country, the quality of the organisations that receive aid - government, private sector, civil society - is very varied, and donor coordination in some countries and in some sectors within countries might equally be highly advanced or virtually non-existent.

The way the sectoral approach is to be financed is not fixed in advance. However, it will be based on a top-down strategy: wherever possible, we shall attempt to achieve joint budget support by all donors through a common fund or "basket" for the entire sector or part of it, with no earmarking of specific activities or parts. Where this is not possible, various funding modalities are conceivable, including: (i) bilateral budget support for one or more budget lines; (ii) funding the implementation of specific parts of programmes; and (iii) funding components

in support of policy development (formulation, analysis, operationalisation and implementation) prior to budget support, preferably together with other donors. The sectoral approach might also including funding NGO programmes run by trade unions, Chambers of Commerce, local financial institutions etc.

Public Expenditure Reviews are a handy tool for establishing the right mix of funding, and are a good way of testing fungibility. After all, the idea is for donor funding to supplement the recipient's own sectoral spending, not replace it.

4. Field of application

The sector approach is applicable for policy development and implementation at national level for all sectors which are distinguished in a particular country.

5. Methods and tools

As the sector approach is a way of working it is not relevant to consider specific methods and tools. A wide range of methods and tools can be applied.

6. Status and experiences

International
No information available at the secretariat of the Netherlands Commission for EIA.

Ministry of Foreign Affairs of the Netherlands
The sector approach has become the Ministry's policy since 1998. Due to the recent introduction of this approach no experiences have been documented sofar.

SECTOR ANALYSIS

1. Definition

The Sector Analysis[2]] (SA) is an instrument to describe and analyse a sector in a developing country in order to investigate sectoral strategic development options, which forms the basis for the Netherlands supported development assistance. A Sector is defined as a coherent set of activities, that must be analysed collectively to come to a rational decision and that comprises all actual and investment expenses within the sector (World Bank, 1995). The SA has been developed by the Ministry-Department of technical assistance.

2. Objective

The purpose of a SA is to justify a long term policy and or strategy for the sector and to specify the way the Netherlands development assistance can intervene in this sector. This will be done in consultation with the recipient country and other parties (incl. other donor countries) involved in the sector.

3. Procedure / process & methodology

A SA is applied after selection of the sector. In case of existing Netherlands activities in a certain sector the SA offers the opportunity to streamline the activities. In case of starting Netherlands assistance to a sector an analysis can result in a balanced plan for activities but this will take more time and capacity than in the former case.

The SA consists of five parts:

- Description of the sector; describing both the actual situation as well as the trends within the sector and the relation with other relevant sectors. Description of the institutional setting, the actual level of services (goods and services) of the sector and the wanted level of services by the different stakeholders.
- Analysis of the development problems; a specification of the gap between the needs of the population and the sector-supply of goods and services and an analysis of the underlying causes. An *Institutional Sector Assessment (ISA)* can be used to execute an institutional analysis.
- Optional development strategies; development of strategies suggested by: (i) governmental institutions; (ii) relevant population groups and (iii) donor agencies in order to reduce the gap between observed needs and supply in a sector. An *ISA* is required to assess the capacity of implementing agencies / authorities.
- Assessment of strategic options and selection;
  Reviewing of the selected strategies on basis of the following criteria: feasibility, affectivity, efficiency, impact on gender and environment and poverty, development relevance and experiences with implementation of strategies on basis of evaluations.
- Dutch sector programme; further elaboration of the strategic choice for the sector in the Sector Programme, which will be part of the Country Policy Plan.

The analysis has a market oriented conceptual framework as it considers *needs* for goods and services on the one hand and the *supply* of these goods and services of the sector on the other hand. The SA is a participatory approach in the way that the information must not only be from official (governmental/donor) sources, but also from NGO's and other organisations to envisage the opinion of the population.

2 This description is mainly based on the Terms of Reference for Sector Analysis by DGIS (December 1995).

The analysis relates to several levels of planning, from the macro to the micro level; Macro: the national matters; Meso: the institutional setting of involved parties, legal and other regulations; Micro: the matters, needs and demands of the population. The micro level is said to be necessary for the verification of the ‹facts' out of the macro-setting.

4. Field of Application

The SA should be executed for a sector at national or regional level. The instrument can be applied for all kinds of sectors e.g.: education, health, agriculture, industry and environment.

5. Methods and tools

There is limited information provided on the methods and tools which can or should be used. The analysis is primarily executed on basis of secondary data.

6. Status and experiences

International
As far as known by the Netherlands Commission for EIA, the SA as developed by the Ministry has not been applied.

Ministry of Foreign Affairs of the Netherlands
SA has a semi-formal status at the Ministry and has been applied two times. There are negotiations going on with several Netherlands Embassies (RNE) for wider use of the instrument. The first SA is done by the RNE in San Jose, Costa Rica (Mr K. Konstapel, 1994?) for the analysis of a sector in Guatemala. It was decided to do this SA, because the relative distance of the RNE to the specific country and because there was a suitable political moment to specify the priorities for Dutch development activities in Guatemala. *(Which sector exactly?)* Furthermore, a SA is executed in Kenya, coordinated by the RNE (Mr P. Gooren, 1996?).

Strong points
- A simple logical and balanced approach.

Weak points
- The instrument describes what should be done but does not answer the question how this information should be gathered.
- Poverty, gender and environmental issues are mentioned but hardly addressed.

7. Links with other instruments

Planning level
SA is a strategic instrument. It is foreseen that the SA can be executed as a follow up of a *Context Analysis* in which the sectors are selected. In the description of the process, reference is made to the execution of an *ISA*. This is done in the analysis of the problem (step 2) and in the development of strategic options (step 3). It would be a benefit to synchronize procedural the *ISA* with SA, but is not clarified how this could be done.

Content
The sustainable development concept is applied as a framework and this is translated into the poverty, gender and environment (AVM) criteria of the Ministry. This means that the problem is defined in terms of the poverty, gender and environmental aspects as well as the strategic options for development. Besides, it takes the institutional setting into account.

8. Institutions

- Ministry of Foreign Affairs (DGIS-DRU).
- SA is an instrument developed by the Ministry-Department of rural and urban development, contact person: Paul Litjens.

9. References

- Terms of Reference Sectoranalyse, by DGIS/DST, 6 December 1995.
- Secretariaatsmemorandum Commissie m.e.r., "Terms of Reference Sectoranalyse", 12 augustus 1996.
- World Bank 1995: The broad sector approach to investment lending. Discussion paper 302.

INSTITUTIONAL SECTOR ANALYSIS

1. Definition

Institutional Sector Analysis (ISA)[3]] is an instrument to identify and analyse institutional issues, and to formulate strategies and capacity strengthening measures in the context of existing or planned sectoral assistance programmes. ISA has been developed by the Ministry since 1996. ISA provides recommendations concerning institutional issues for the development of a sector assistance strategy as part of the sector strategy plan.

2. Objective

ISA aims to improve the effectiveness and sustainability of sectoral assistance programmes by analysing the institutional framework of a particular sector. The assumption is that institutions/organisations play a prominent role in sectoral assistance, so that it is important to know how they work, what their strengths and weaknesses are and how they could attribute to the implementation of projects and programmes within a certain sector.

3. Procedure / process & methodology

ISA consists of two parts:

I Determination of the *Analytical Framework*; consisting of the description of the sector and the analysis of the development problems in the sector.

3 This description is based on the document: concept Beleidsnotitie Institutionele ontwikkeling by the Ministry of Foreign Affairs of the Netherlands, 1999.

II The execution of the *Analysis;* on the basis of the determination of the analytical framework, possible assistance strategies will be developed and weighed. Finally, one assistance strategy will be selected for implementation.

The Analytical Framework[4]] (part I) consists of six levels of analysis:

1. The individual (project)organization(s); Analysis of the organisation in order to assess the capacity of this organisation.
2. Their interrelationships; Analysis of the interrelations of the different organisations within the sector.
3. Relations with users/clients; Analysis of the manner in which the organisation maintains relations with users and clients.
4. The institutional sectoral context; Analysis of the overall organisation of the sector consisting of: characteristics and structure of the organisation; regulations, laws and policies relevant for the sector; strategies, plans, objectives and priorities of the most important actors.
5. The national/macro context; Analysis of the political, economic and social setting, and the situation of the natural resources in order to determine the functioning of the organisations in the sector.
6. The involvement of donors.

The (counterpart) organisation which will become responsible for the implementation of the assistance projects, is the central object of analysis. All relevant institutional dimensions related to this organisation are analysed, starting with an analysis of this organisation and than ‹bottom-up'. In case an entirely new sector will be analysed, and the responsible organisation is not yet known the analytical framework should be applied ‹top down', which means starting with the analysis of the national context. The involvement of the donor gets special attention in the ISA approach. Especially, the potential conflicts between donor and recipient country which may occur due to different political priorities are taken into consideration in this analysis.

The Analysis (part II) of the institutions in the sector identifies and analyses institutional issues in order to assess and develop strategic options for the future sector policy. This process consists of the following steps:

step 1 Information collection
step 2 Analysis: ID profiles
step 3 Selection strategic options
step 4 Startdocument
step 5 Workshop for Strategy building
step 6 Reporting

Step 1: Information gathering is done by consultants experienced in institutional analysis, on basis of secondary data and interviews with embassy staff, counterparts, project team leaders and other relevant persons.
Step 2: On basis of this information the consultants will execute an analysis and the results will be presented in a so-called Institutional Development (ID) profile.
Step 3: An analysis of the major institutional problems will be made emerging from the ID profiles. These will be summarised into several strategic options.
Step 4: A start document will be drafted in preparation of the workshop. This document contains, the ID profiles and the list of strategic topics. Step 5: A two day workshop will be organised. A choice for one of the strategic options should be made by weighing inputs against expected results.
Step 6: The ISA consultants will prepare a final report.

4 The analytical framework is an expanded version (by adding the involvement of donors) of the model of Hilderbrand and Grindle of the Harvard Institute for Institutional Development, presented in "Building Sustainable Capacity" (1994).

4. Field of application

ISA is applicable for all kinds of sectors and themes. In principle the instrument can be applied in order to formulate a sectoral/thematic strategy plan in a particular country. ISA can also be used to evaluate the institutional dimension of a sector assistance strategy.

5. Methods and tools

The organisation analysis is the only tool which is specifically mentioned and elaborated for ISA. The organisation analysis should be applied at level 1 of the analytical framework in order to analyse the organization responsible for the implementation of the assistance projects. This tool has been described in the following document prepared by the Netherlands Ministry of Foreign Affairs: concept Beleidsnotitie Institutionele ontwikkeling; Part II, Handleiding Organisation analysis pp. 1-30, 1999.

The OECD/DAC gave an overview of techniques and analytical tools for use by donors for Capacity Development in Environment programmes, which are categorised in:
- participatory techniques
- contextual Analysis techniques
- capacity Mapping techniques
- programme Design techniques
- programme Management techniques

6. Status and experiences

International
As far as known by the Netherlands Commission for EIA , ISA as developed by the Ministry has not been applied.

Ministry of Foreign Affairs of the Netherlands
ISA has a semi-formal status at the Ministry and has been applied several times since 1995. First experience with an assessment of the water sector in Egypt and other experiences are in Sri Lanka (Plantation Sector), Mozambique and Burkina Faso.

Strong points
- Step by step approach of the analysis.

Weak points
- The link between the analytical framework and the analysis is not clear, terms are not used consistent.
- The analysis focuses at capacity only whilst a good institutional analyses answers two questions: constraints with respect to capacity and motivation.

7. Links with other instruments

ISA tackle the institutional dimension of component 1 through 4 of the sector analysis. Information from ISA can also be used in application of instruments in the following cases: (i) if a SEAn is executed for a sector; (ii) if a SEA is executed for a sectoral plan; (iii) if EIA or GAS are executed at project level.

The relation with gender is not very clearly elaborated in the ISA model, although gender issues might well play a role in the studied problems in the sector. It will be important to highlight this aspect in the relation with population groups. There are some gender indicators that are especially relevant in relation with institutional aspects. These are:
- participation in decision making processes;
- organisation of women;
- access to and control over (natural) resources.

In the Gender Assessment Study, the analysis of the institutional capacity and willingness to adapt measures in advance of women is an important part (see GAS description).

OECD/DAC is working on a set of indicators for the assessment of Institutional and Organisational Capacity for the environment at the level of programmes. When the institutions on national, regional or local level are strong enough, the management of project interventions and control will be ensured. Capacity Development in the Environment is defined by OECD/DAC as: the ability of individuals, groups, organisations and institutions to devise and implement solutions to environmental issues as part of a wider effort to achieve sustainable development[5]].

8. Institutions

- ISA is developed by the Ministry of Foreign Affairs (DGIS-DSI/MY); contact person: Mr Peter de Haan.

9. References

- Ministerie van Buitenlandse Zaken: concept Beleidsnotitie Institutionele Ontwikkeling, 1999.
- "Institutional Development in Netherlands Assisted Projects in the Water sector of Egypt". Experiences and Perspectives, Royal Netherlands Embassy Cairo, November 1996 (Confidential).
- Huizinga, Cornie and Dafir Kramer, "Management of Capacity Development in Environment projects: experiences and challenges in the Dutch Development Cooperation", OECD/DAC workshop on CDE, December 1996.
- IDEM Consult, "Indicators for Capacity Development in the Environment. Background paper prepared for the OECD/DAC Working Party on Environment and Development" (draft version).
- "Institutional Assessment for Sectoral Assistance Programmes", the Ministry of Foreign Affairs, The Netherlands, March 1997.
- "Institutional Development in Netherlands Assisted Projects in the Water sector of Egypt". Experiences and Perspectives, Royal Netherlands Embassy Cairo, November 1996 (Confidential).
- Morgan, Peter and Helmut Muller-Glode, "Capacity Development in the Environment: towards a framework for Donor Involvement". Background paper prepared for the OECD/DAC Task Force on Capacity Development in the Environment, April 1994 (final draft).

CONTEXT ANALYSIS

1. Definition

A Context analysis (CA)[6]] is a systematic analysis of the present macro situation of a developing country. A CA is a flexible instrument which can be applied for different purposes like the preparation of Country Programmes, Sector Analysis, Integrated Profile, Annual Plans or Projects. The final policy purpose, demarcates the scope of the CA. The CA should not cover all aspects but only those that are important for the purpose. It is a strategic instrument developed by the Ministry in 1995. Experiences with the execution of sustainable development

5 Definition from: Capacity Development in the Environment: Towards a Framework for Donor Involvement, prepared for the OECD/DAC Task Force on CDE, April 1994.

6 This description is based on the document: "Contextanalyse; Bezint eer gij begint, DST versie 2, door het DGIS-DST, 14 november 1995.

analysis ("DO-analyses") for Kenya and Indonesia was used as an input for the development of this instrument.

2. Objective

The objective of a CA is to provide relevant information for the choice of the type and form of (Dutch) development assistance.

3. Procedure / process & methodology

There is no standard format for the CA, as the analytical approach will differ along with the purpose. However, the conceptual framework has several interdependent steps.
A CA consists of two parts. The first part focuses on the national context. There should be attention for the *actual situation* as well as the historical and future *trends* of the present situation:

a. An analysis of the normative context, available resources and international factors. These three factors influence the government and the civil society (b).
b. An analysis of the structure of the government and civil society and the interdependence and interaction between these two.
c. The description of several policy aspects, like good governance, and the socio-economic policy and practice related to finance, environment, gender and poverty alleviation.
d. The evaluation of the policy, both in terms of the conceptual character as well as the quality of the policy implementation. The evaluation is done on basis of (i) development goals of the recipient country and (ii) criteria used in Dutch Development screening.

The second part focuses on the process of selection and prioritising of issues with respect to the development policy in that particular country. Therefore, the results of the (1) national context analysis, (2) the analysis of activities of other donors, (3) sector analysis or (4) integrated profile can be used. The results of the CA can become an input for a *Sector analysis*, or an *Integrated profile*:

e. The formulation of the most important development opportunities and constraints.
f. The actual choice of the best modalities for development assistance as well as the choice of sectors or region's within a recipient country.

As the actual and policy context is changing a CA should be executed every 5-7 years. On basis of the results of such a CA it might be necessary to change the type and form of development assistance.

4. Field of application

The CA can be used for every country and every policy issue. It will mainly be executed at the macro planning level. The way it is applied, demarcates directly the scope of the analysis.

5. Methods and tools

A CA could be made on basis of the following instruments, methods and techniques:

- secondary information;
- integrated profiles or environmental, gender and poverty profiles;
- sector analysis.

Only limited information was provided on this subject.

6. Status and experiences

International

The CA as developed by the Ministry has not been applied by other institutes than the Ministry. Experiences with application of instruments comparable to CA, which will certainly exist, have not been looked for actively.

Ministry of Foreign Affairs of the Netherlands

Context analysis has no formal status at the Ministry and has not been applied by the Ministry . Since January 1999 a discussion within the Ministry started on the preparation of country policy plans. The present regional policy documents are interesting documents for outsiders but they lack the information which is necessary for decision making by embassies. Country policy plans can probably fill this gap and according to Paul Litjens (DGIS/DRU) the instrument context analysis can be used to prepare a country policy plan.

The Netherlands embassy is responsible for the execution of the CA process. It will get assistance from other actors, like external experts, donors or NGOs. The sector and country divisions could support the study. Besides, information from the target group must be included.

Strong/weak points

As the CA has not been applied as such there are no experiences.

8. Links with other instruments

The CA is an instrument that can assist the decision-maker with respect to strategic decisions. Therefore, it is strongly related to other strategic instruments like *Strategic Environmental Assessment, Strategic Environmental Analysis* and *Strategic Overview*. However, the CA is the less developed instrument, it has not been applied as such and could therefore learn from the latter mentioned instruments which have been applied regularly the last years.

9. Institutions

The CA is developed within the Ministry / Department of Technical Assistance. Nowadays the Ministry /Department of Rural and Urban Development is responsible for the instrument; contact person is Mr Paul Litjens.

10. References

- Verslag Workshop Context Analyse, Den Haag 6 oktober 1995.
- Contextanalyse; Bezint eer gij begint, DST, versie 2; 14 november 1995.
- Matrix consultants in development management (concept - mei 1992): Duurzame ontwikkeling als beleidsuitgangspunt. Implicaties voor DGIS-beleid en beleidsuitvoering.
- Ministerie van Buitenlandse Zaken. Speerpuntprogramma Milieu (november 1993): Duurzame ontwikkelings-analyses. Stand van zaken naar aanleiding van een discussiemiddag.

PROCESS APPROACH

1. Definition

The process approach[7]] differs from the project approach because it is an open way of planning with the following characteristics: (i) long term objectives are determined at the start; (ii) during the process short term objectives and activities are defined in a participative way, together with the actors, so there is no plan at the start of the implementation phase; (iii) it starts generally with pilot activities, that regularly grows out to a comprehensive programme; (iv) a long term (financial) commitment from donors, 15-20 year; (v) it should be managed and stimulated by means of an intermediary organisation in the field and; (vi) the local government should at least tolerate the process approach but ideally support it actively[8]].

2. Objective

The process approach aims to facilitate the actors in the field to identify and realise their own development goals. As a consequence institutional strengthening and empowerment of the actors is a condition to achieve these goals, in most cases.

3. Procedure / process & methodology

If a process approach will be applied, the first phase should be the execution of a strategic / integrated analysis of the present situation e.g. a *Strategic Environmental Analysis (SEAn) or a Context Analysis.* This study provides essential information on the opportunities and constraints for development in the area for the different actors. In the second phase pilot activities are started and monitored. On basis of the monitoring results pilot activities can be adapted and/ or extended into a comprehensive programme in the third phase.

There are four major players in the process approach:

- The government can be involved in the implementation of activities. In practice, its role is to support the implementation of activities that are identified during the process approach, in most cases.
- The donor agency is the facilitator / adviser of the process, provides funds, defines conditions and is often responsible for control of results and spending. As these roles can become conflicting it is recommended that the control should be executed by an independent body.
- The intermediary organisation, often an NGO, is especially important when the target group is not well organised itself. Especially in the first phase of the process approach the NGO's will need funds to set up the first pilot activities.
- The target group consists of different interest groups and therefore it is recommended that an agreement will be signed between the intermediary organisation and a co-ordinating or steering committee of the target group, in which all affected groups are represented and conditions are set. This agreement is a so called *development contract.*

At the start of the process approach there are no specific goals and activities defined and therefore, it is difficult to allocate the funds precisely. Achievement of the goals according to the process approach may take 15 -20 year and therefore long term (financial) commitment of the donor is required.

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7 This description is based on "Proces benadering in streekontwikkeling; Een handleiding, september 1997 (concept) door DGIS-DRU (Ms D. Buijs)".

8 In the project approach activities objectives and activities are defined in the identification phase and elaborated in a plan. If the plan is approved implementation of activities will start.

The funds should not be directed to only one of the partners in the field because this creates an unbalanced power structure. A co-ordinating or steering committee should be responsible for the financial management. Such a committee should then make a long term and annual programme in which the allocation of funds are explained.

4. Field of application

The process approach is applicable for a lot of different situations from simple projects to more complex strategic level interventions.

5. Methods and tools

As the process approach is a way of working it is not relevant to consider specific methods and tools. A wide range of methods and tools can be applied such as SEAn at the start of the process.

6. Status and experiences[9]]

International
No information available at the secretariat of the Netherlands Commission for EIA.

Ministry of Foreign Affairs of the Netherlands
The process approach has been discussed for several years within the Ministry , although there is no formal policy document. The process approach has been applied for the identification/ formulation of several projects, mainly in the field of rural development. Most of the Ministry rural development experts at the embassies mentioned that they make use of this approach for identifying and implementing new projects.
Furthermore, the Netherlands development organisation SNV has been applying the process approach for many years and gained considerable experience.

Strong points
- The approach is applicable for a lot of different situations from simple projects to more complex strategic level interventions.
- Flexible in planning and execution.
- Guarantees for commitment and ownership of target groups, local authorities, NGO's and donors.
- Stimulates good governance and participatory development at local authorities and intermediary organisations.
- Assignment of rights and duties in contracts for all stakeholders.
- Organisational strengthening of the involved parties.
- Limited funds necessary in the first phase and limited input of technical assistance.

Weak points (in particular with respect to rural development programmes)
- Concentration areas are selected on basis of poverty criteria. Potential for development is no selection criteria. Due to the limited potential of the selected areas the results of the process approach are never spectacular in the long term.
- A (context) analysis is rarely applied at the start of the process approach and it is not gender specific. Developments and trends at macro and meso level are not related to the problems on micro level. This means that:
  - choices for activities and target groups are insufficiently related with the opportunities and constraints of the region;

9 The description of strong and weak points is based on an evaluation of SNV projects formulated by the process approach in: IOB (1999): Evaluatie van SNV activteiten in Benin, Nepal en Bolivia.

- the sector with most potential will not be selected;
- options for intervention comply with the needs of the target group and these options differ so much that they are difficult to manage by intermediary organisations;

C Absence of strong intermediary organisations or NGOs or outsiders to facilitate the process.

C In general the process starts slowly because searching and selection of partners takes place during the execution phase.

C Determination of objectives long term as well as short term takes place during the process.

C During the implementation phase there is a strong focus on the process itself instead of the socio-economic development of the area.

C Limited attention for the fact that the target group consists of different interest groups. No specific attention for different interests of men and women. In general, participation of women is limited, and a stakeholder analysis and an actor in context analysis is lacking.

C A long term involvement of the donor (10-20 year) from the start of the process approach is not guaranteed.

7. Institutions

C The Ministry of Foreign Affairs (DGIS-DRU); contact persons: Ms Dieke Buijs and Mr Robert Jan van der Scheer.

8. References

- "Procesbenadering in streekontwikkeling", een handleiding (concept). By Dieke Buijs, DGIS-Department of Rural and Urban Development (DRU), version 22 September 1997.
- "Werknotitie, De procesmatige aanpak", by SNV, August, 1997.
- IOB (1998): Evaluatie van SNV activiteiten in Benin, Nepal en Bolivia.

THEMATIC INSTRUMENTS

POVERTY INSTRUMENTS / APPRAISAL

POVERTY PROFILE

1. Definition

A Poverty Profile[10]] (PP) describes the poverty situation in a country or a part of a country (region, province, district). It gives insight into the extent of poverty in terms of number of poor people living below the "poverty line", "depth" of poverty (income distribution under the poverty line), the "location" (urban/rural, certain districts, certain sectors of the economy, certain age groups, minorities, etc.), and the various "dimensions" of poverty (indicators). Data (quantitative as well as qualitative) are presented in such a way that trends can be observed[11]].

The Poverty Reduction Handbook of the World Bank (1993) describes the PP as the starting document of a Country Poverty Assessment, that results in strategic options for sustainable development. It gives a checklist of questions that a PP should address (see box).

2. Objective

The objective of a PP is to provide basic information for the formulation of programmes for sustainable development and poverty reduction. It is meant to summarize information on the poverty situation in a given area and identify poverty trends in such a way that it is useful for policy analysis and design.

3. Procedure / process & methodology

The Ministry has not developed a methodology for a PP. However, there is an outline of the contents of a PP, showing the relevant indicators for poverty. These indicators should be described quantitatively as much as possible, to make a comparison in the time and / or with other regions possible.

Indicators to be described in a PP:

A. General: defining the poverty problem.
B. Income: description of the available data on (per capita) income and the income distribution in the area. This must be related to the poverty line of the country. Furthermore, an indication must be given of the extent of poverty (how much under the poverty line), where the poor live and which characteristics the poor groups have.
C. Nutrition: Nutrition status is measured by the average calorie intake per person, compared to calories needed to sustain a normal level of activity and health.
D. Health: Description of health situation, including statistics like "under 5 years mortality", "infant mortality", or a "life expectancy at birth" indicator, with the development of this indicator over time.
E. Living conditions: these refer to indicators like "housing/shelter", "access to safe drinking water", "sanitation facilities ", "fuel wood", "transport and other public facilities".

10 This description is mainly based on the Terms of Reference for the preparation of a poverty profile. In: Procedurebundel, DGIS, 1994; Explanatory notes on development screening of project assistance.

11 DGIS relates poverty to: low income, insufficient access to factors of production, insufficient access to sociale services and insufficient access to decision-making processes.

F. Environment: This element should contain two elements: 1) How is the situation with regard to the natural environment as far as this influences the living conditions, and 2) Can this utilisation of the environment be sustained in the long run?
G. Participation in Decision Making: measured in for instance: "participation in free elections", "influence on local government", "role of trade unions", or "human rights situation".
H. Knowledge/Skills: these refer to "literacy rates", "primary school enrollment" or "internal efficiency of primary education".
I. Employment: taking into account seasonal variations.
J. (Other) means of production: For instance "access to (farming) land".

International institutes developed indices to measure the poverty situation. The UNDP developed the Human Development Index (HDI) to measure the development situation. Besides the average income the following issues are measured to determine the HDI: *longevity*; *knowledge* (adult literacy and average years of schooling) and *standards of living* (purchasing power). IFAD developed the International Poverty Index of IFAD. The World Bank has developed a checklist with questions to address in the PP (see box).

The Poverty Profile addresses the following questions:

- What is the poverty line (upper and lower)?
- How many people are poor and extremely poor?
- How large is the povery gap?
- What is the distribution of living standards among the poor?
- Are the poor predominantly urban or rural?
- Has there recently been migration of the poor to urban areas?
- How is poverty correlated with gender, racial, and ethnic characteristics?
- What are the main sources of income of the poor?
- What products or services do they sell (tradables/nontradables)
- How large a factor is unemployment or underemployment?
- Which are the important goods in the consumption basket of the poor?
- What is the educational, health, and nutritional status of the poor?
- What are the fertility characteristics of the poor?
- To what public services do the poor have access? What is the quality of the services?
- What assets - land, housing, and financial - do the poor own?
- How secure is their access to - and/or tenure over - natural resources?
- What are the environmental dimensions of poverty?
- How variable are the poor's incomes? What risks do they face?

Recently, more attention is given to the self-assessment of poverty by the population groups, through participatory rural appraisal techniques. This will give an alternative picture of the problem situation. Through this shift in approach to poverty, gender issues are easier to take up as well (Baden and Milward, 1995).

4. Field of application

A PP is mainly used as an input for the formulation of policy plans, strategies or programmes at national level by donors, like the World Bank but it can also be used at regional / provincial level.

5. Methods and tools

A PP is mainly prepared on basis of secondary information (statistics). A participatory PP, in which the population can give a self-assessment of the poverty situation uses Participatory Rural Appraisal techniques; the same as for gender research. This type of PP is prepared for district/local or project level.

6. Status and experiences

International
The World Bank prepared approximately 20 PP for the preparation of Country Poverty Assessment studies (Baden and Milward, 1995).

Ministry of Foreign Affairs of the Netherlands
The poverty profile has no formal status within the Ministry and is not mentioned anymore in the prevailing Procedurebundel (the Ministry, 1997). Sofar, only two PP haves been made by the Ministry as part of an integrated profile on poverty, gender and environmental for Santo Antão, Cape Verde (1993) and a number of provinces in Bolivia (1997). This poverty profile is not similar to the PP produced by the World Bank because it focuses on the analysis of the causes of poverty. The Ministry makes use of the PP prepared by the World Bank for the formulation of country policy plans and programmes.

Strong points
- Provides structured information on national and regional level.
- Presented information offers opportunities to give insight into trends.
- Integration of PRA techniques makes it possible for groups to elaborate their own poverty profile; gender aspects can be taken into consideration in such a situation.

Weak points
- Information presented is based on secondary information and therefore the reliability is not guaranteed.
- A PP is strongly descriptive and less analytical of character.

7. Links with other instruments

Planning level
A PP is mainly prepared at national level and can be used as an input for different national or sectoral assessments or policy plans. According to the World Bank guidelines a PP is an input for the execution of a Country Poverty Assessment. The Ministry is willing to integrate the PP with profiles for gender and environment.

Contents
With respect to the integration of poverty, gender and environment into one profile the following lessons can be learned: (i) one balanced ToR is a condition, (ii) a conceptual frame work how to integrate the different issues should be agreed upon by all parties involved in the preparation of the profile and (iii) the preparation of an integrated profile costs more time and money than three separate profiles.

8. Institutions

- The World Bank is the leading institute preparing country poverty profiles; no contact person.
- The Ministry of Foreign Affairs / Social and Institutional Department; Section Poverty analysis and Policy (DSI/AB).

9. References

- Baden, S. and Milward, K. (1995): "Gender and Poverty". Working Paper 2, The Task Force on Poverty Reduction, Swedish International Development Cooperation Agency.
- World Bank (1993): Poverty Reduction Handbook.

- World Bank (1997): Combining the quantitative and qualitative approaches to poverty measurement and analysis. The practice and the potential. World Bank Technical paper no. 366.
- DGIS (1994): Procedurebundel; "Explanatory Notes on ‹Development Screening' of project assistance", in which: Terms of reference for the preparation of a Poverty Profile.
- DGIS (1997): Procedurebundel Ontwikkelingssamenwerking.
- Roggeri, H. e.o. (1993): Integrated profile of San Antao, Cape Verde.

POVERTY ASSESSMENT

1. Definition

The Country Poverty Assessment[12]] (PA) is an instrument to analyse the relation between the standard of living (actual poverty situation) and public policies, expenditures and institutions. It also evaluates the effects of economic and social policies on the poor. On basis of this assessment a country poverty strategy will be elaborated.

2. Objective

The PA provides the basis for a collaborative strategy to poverty reduction by the national authorities and donor(s). It helps to establish the issues for the policy dialogue.

3. Procedure / process & methodology

The scope of the PA varies across countries, depending on the country situation, the government's commitment to poverty reduction, and the nature of available data. Generally a PA covers the following points:

I *Diagnosis*

C Poverty Profile: describes the actual poverty situation in a country or a part of the country and trends, on basis of existing data resources.

II *Assessment of Country Policies, Expenditures, and Institutions*

C Incentives and Regulations: the major macroeconomic and/or regulatory issues that impede poverty reduction.

C Public Expenditures and Institutions: the impact of public expenditures on poverty reduction, including an examination of their effectiveness in reaching target groups. Assesses institutional capacity for formulating and executing policies and delivering services.

C Safety Net: describes the major elements of the social safety net. Assesses its cost-effectiveness in reaching targeted poor and vulnerable groups. Assesses the role of existing public or private organizations, including NGO's.

III *Definition of Poverty Strategy*

C Country Poverty Strategy: Based on the above mentioned analysis, a strategy is elaborated, describing the measures that the government should take to reduce poverty, including indicative targets for poverty reduction. The strategy should take into account: the government's capacity (financial and institutional) to implement poverty-reducing programmes and policies, and political economic considerations.

IV *Evaluation*

C Statistical System: Description of the major weaknesses of country poverty data and the proposed steps, including recommendations on technical assistance or other external support, to improve it.

The PA as described here includes the strategic choice of measures to be taken and a statistical way for evaluating progress.

12 This description is based on information of the Country Poverty Assessments of the World Bank, while these reports are often used within the Dutch context. In World Bank policies Poverty Assessments are synonym with Country Poverty Assesments. Within the Dutch Development Cooperation these are mentioned as Poverty Assessment Studies (PAS).

4. Field of application

The PA's of the World Bank are elaborated for a country at national level. It is strongly focussed on the national government and national policy plans. In principle a PA can be executed for each administrative political level (national, provincial, district).

5. Methods and tools

At the secretariat of the Commission for EIA there is no information available on methods and tools.

6. Status and experiences

International

- The World Bank is the leading institute preparing country poverty profiles.; no contact person.
- DGIS: Social and Institutional Department; Section Poverty analysis and Policy (DSI/AB).

The World Bank prepared PA's for about all countries where they are involved. Some experiences of the World Bank are described in the Poverty Reduction Handbook in Annex 4: Bolivia, Egypt, India, Indonesia, Malawi, Malaysia, Mexico, Venezuela.

Ministry of Foreign Affairs of the Netherlands
PA has no formal status at the Ministry . A PA has not been executed by the Ministry but the PA's prepared by the World Bank are used for planning of NEDA activities.

Strong/weak points
In the view of the Ministry, PA's executed by the World Bank are focussed on economic aspects whilst it should more fundamentally incorporate social (gender) aspects for a balanced assessment and data should be gathered in a more participatory way.

7. Links with other instruments

A *poverty profile* delivers the information necessary to execute a (country) poverty assessment. An *integrated profile* as prepared by the Ministry incorporates an assessment of the poverty situation for a selected geographical as part of an integrated analysis of the economic, social and environmental situation.

8. Institutions

- The World Bank is the leading institute preparing country poverty assessment studies.
- The Ministry of Foreign Affairs (DSI/AB).

9. References

- World Bank (1993): Poverty Reduction Handbook.
- World Bank, OD 4.15 - Annex A.
- World Bank (1997): Combining the quantitative and qualitative approaches to poverty measurement and analysis. The practice and the potential. World Bank Technical paper no. 366.

POVERTY STUDY

1. Definition[13]]

The Poverty (assessment) Study is an analysis of the economic effects of a proposed project on the poverty situation of population groups, who will be affected by the intervention.

2. Objective

Getting insight in the impact of a proposed project on the poverty situation of the population by giving a description of the present situation, indicating the poor population groups and the expected effects of the intervention on these groups.

3. Procedure / process & methodology

The poverty situation is to be described in indicators like: "access to productive resources" and "income levels". Also more social aspects indicating the Human Development of the area are important. The problem is that these social indicators are difficult to quantify, and therefore less suitable for comparison.

The report of the Poverty Study is divided in the next chapters:

- Description of the rural poverty, indicated with reference to poverty lines, the Human Development Indicator, the Population, Development and Health Situation, the access to Social Facilities and the Education. This part is done on basis of existing sources.
- Definition of the target group; those who will primarily benefit from the proposed project, with reference to the legal basis of resource access.
- Direct beneficiaries; description of the economic status, on level of (small) holdings, income and income distribution, including a paragraph of "Expected changes" (impacts).
- Indirect beneficiaries; in the case of Balochistan tenants, without secure access to land and water resources, who will be affected by new irrigation schemes as well.
- Wealth redistribution mechanisms; the way the social systems and insurances will be affected by a change in the economic structure (due to the project).
- Recommendations; based on the poverty study, criteria are selected to implement only that project alternatives (irrigation schemes) that have a positive impact poverty impact. The criteria are referring to: marginalised groups, social desirability and equity.

13 There is no guiding document on Poverty Studies available at the Commission. This summary is made on basis of the Poverty Study for the Balochistan Minor Irrigation and Agricultural Development Project, written by Halcrow in association with Euroconsult, ULG Consultants and NESPAK, february 1994.

4. Field of Application

All projects aiming at poverty alleviation.

5. Methods and tools

No general information available. The PS as done for Balochistan is based on socio-economic indicators, but also included social aspects. The description of the Wealth redistribution mechanisms (solidariteitsmechanismen) for instance was not only a description of these policies and institutions, but included an impact assessment of the proposed intervention on these mechanisms and what this meant for the population.

6. Status and experiences

International
No information available.

Ministry of Foreign Affairs of the Netherlands
The Poverty Study has no formal status at the Ministry. The Ministry has executed a poverty study at least two times, as far as known. In India there a PAS is made in combination with a GAS, for the IFAD Andhra Pradesh Participatory Tribal Development Project in 1995 (requested by the Ministry (DGIS/DRU)). In Pakistan a Poverty Study was made for the Balochistan Minor Irrigation and Agricultural Development Project in 1994.

Strong/weak points
No experiences documented.

7. Links with other instruments

A poverty study can be considered as part of the family of social impact assessment instruments because the object and content of the study, assessment of impacts on people, is the same. The difference between the two instruments is the focus on poverty of the (poor) target group whilst in a SIA poverty is one of the issues studied. In practice, this means that one could start with the idea of executing a SIA and on basis of scoping a poverty study or poverty impact assessment study will be executed.
In the case of the poverty study executed for a project in Balochistan an environmental study was also executed, considering the problem of pesticides use and health impacts.

8. Institutions

C The Ministry of Foreign Affairs (DSI/AB)

9. References

C Poverty Study for the Balochistan Minor Irrigation and Agricultural Development Project - Phase II, Project Preparation. Halcrow, in association with Euroconsult, ULG Consultants, NESPAK, february 1994.

1. Definition

Social impact assessment (SIA)[14]] can be defined as the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of interventions (policies, plans, programmes, projects and other social activities) and social change processes so as to create a more sustaianble biophysical and human environment[15]]. Social impacts include all social and cultural consequences to human populations of any public or privarte actions that alter the ways in which people live, work, play, relate to another, organize to meet their needs, and generally cope as members of the society. Cultural impacts involve changes to the norms, values and beliefs of individuals that guide and rationalize their cognition of themselves and their society.

2. Objective

The purpose of SIA is to improve well informed decision-making, in particular information on social impacts which might occur due to the implementation of a certain plan or project / activity and it should lead to enhanced environmental and social sustainability.

3. Procedure / process & methodology

There is no uniform methodology for the execution of a SIA. In general the following ten steps can be distinguished:

1. Public involvement; Development of an effective public involvement plan to involve all potentially affected people.
2. Identification of alternatives; Description of the proposed action or policy change and develop alternatives for the proposed activity/policy.
3. Baseline conditions; Description of the relevant human environment/area of influence and baseline conditions.
4. Scoping; After obtaining a technical understanding of the proposal, identify the full range of probable social impacts that will be addressed based on discussion or interviews with numbers of all potentially affected.
5. Projection of estimated effects; Investigation of the probable impacts.
6. Predicting responses to impacts; Determination of the significance of the identified social impacts.
7. Indirect and cumulative impacts; Estimation of subsequent impacts and cumulative impacts.
8. Changes in alternatives; Development or change of alternatives and determination of the social impacts.
9. Mitigation; Development of a mitigation plan.
10. Monitoring; Development of a monitoring plan.
11. Evaluation or audit: To review the success of the SIA process and of the participation, monitoring and mitigation processes used.

14 The description of SIA is based on the following document: Guidelines and principles for social impact assessment. In: Impact Assesment; Vol. 12, summer 1994, p.p 107- 152. By: The interorganizational Committee on guidelines and principles.

15 This definition is based on: Vanclay, F. 1999 report to the closing session of the annual meeting of the International Association for Impact Assessment, Glasgow.

SIA variables point to measurable change in human population in human society. There is no consensus on the social variables to be included but they can be grouped into the following six categories[16]]:

- People's way of life; how they live, work, play and interact with one another on a day to day basis;
- Their culture; shared beliefs, customs, values and language or dialect;
- Their community; its cohesion, stability, character, services and facilities;
- Their environment; the quality of air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety and their access to and control over resources;
- Their health and well-being; where health is defined as "a complete state of mental, physical and social well-being, not merely the absence of disease or infirmity", and is applied to individuals and to the society in which they live;
- Their fears and aspirations; their perceptions about their safety, their fears about the future and their aspirations for their future and the future of their children.

4. Field of application

SIA is applied for project and plans at local, regional and national level. SIA can also consider transboundary and international issues.
Becker (1997) argues that all social impact assessment should be at the policy level and not at project level. The American SIA experts tend to disagree but all accept that SIA could be done at the policy level.

5. Methods and tools applied

Methods of projecting the future lie at the heart of SIA, and much of the process of analysis is tied up in this endeavour. There is a range of qualitative and quantitative social research methods, involving both participatory processes and expert judgements. Sometimes, scenarios, alternatives modelling and other estimation methods are used.

6. Status and experience

International
SIA has been developed in the USA in the early 1970s. In the 1980s a lot of countries started with SIA and in the 1990s the number of countries having a legal basis for SIA increases. In most of these countries SIA is part of environmental impact assessment.

Ministry of Foreign Affairs of the Netherlands
The Ministry has no experience with SIA and this instrument is not described in the Procedurebundel (1997). As far as known one SIA combined with an EIA has been executed in 1989 in Bangladesh.

Strong points

- Participation of affected group.

Weak points

- Lack of a legal basis for execution of a SIA.
- Difficult to predict how impacts of an intended activity influence different components of society in different ways.

16 Vanclay, F. 1999 report to the closing session of the annual meeting of the International Association for Impact Assessment, Glasgow.

7. Links with other instruments

There is a widespread consensus that social impacts should be considered as part of the environment. SIA is beginning to be fully integrated into the EIA process, and EIA (and SIA) into the planning process. Despite the success of the last ten years, the big issue ahead is how project specific knowledge about, social, economic and environmental impacts can be used for larger more strategic policy decisions.

8. Institutions

- The International Association for Impact Assessment.

9. References

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GENDER ASSESSMENT STUDY (GAS)

1. Definition

A gender assessment study GAS[17]] is an instrument to assess a development project's expected impact on women as compared to men. It also investigates the extent to which the project responds to the specific interests and needs of different categories of women (GAS, 1994)[18]]. GAS has been developed since 1993 by the Netherlands Ministry of Foreign Affairs (DGIS-section women in development).

2. Objective

The purpose is to develop recommendations on how a development project can be designed to encourage the participation and empowerment of women to achieve the final objective: equal rights and equal opportunities for both men and women. These recommendations are preferable integrated in the project cycle before the finalisation of the project proposal.

3. Procedure / process & methodology

Analytical framework
The GAS analytical framework consists of three interdependent parts.

1. It brings together data on the position and perspectives of women and on the differences in power between women and men in the target group.
2. In addition, it examines the organisations that will implement the project to determine if they are capable of communicating with women and of taking their roles and needs into consideration.
3. Finally, a GAS analyses all elements of the project proposal from the gender perspective.

These parts do not have to be analysed in a chronological order. However, the study of the project proposal is recommended to do in light of the information of the target group and the institutional capacity.

Procedure
A GAS has three phases:

A. Preparation: a short desk study for the collection and review of secondary information.
B. Field study: an analysis of the target group and an analysis of organisations/ institutional capacity.
C. Analysis and reporting: the analysis of the field work results. The project proposal is assessed on the basis of these findings. The results of this analysis are reported and discussed with the concerned parties. It will contain conclusions and recommendations to assure the participation and empowerment of women in the project.

In total this takes about three to four month time[19]], depending on various factors such as the available data, extent and diversity of the project area, complexity of the proposed project and size of the team.

A main characteristic of the methodology is *participation* of beneficiaries in the process. Therefore a variety of data collection techniques, including PRA/RRA techniques, are

17 This description is based on the following document: Gender assessment studies. A manual for gender consultants. By: A. Lingen e.o, 1997.

18 Gender is defined as women's and men's socially defined roles and characteristics, which are shaped by historical, economic, religious, cultural and ethnic factors.

19 approximately fl 100.000,=

recommended to use in the field study. The actual choice of these techniques is depending on the specific situation.

Moreover, the involvement of the implementing organization(s) is very important, as they then feel committed to undertaking the recommended actions of the GAS-report.

4. Field of application

The GAS is especially intended for situations/projects in which there is insufficient information about the probable interaction of the target group/women with the project and its likely effect on them. It can also be useful when the idea/proposal needs further elaboration with respect to the target group/women and development. The instrument should be applied for all large projects (>f 1.000.000,-) focussing on the target group.
After the first screening of a project it is decided whether a GAS is needed. The instrument can be applied for

5. Methods and tools

A General, especially for analysis of context and target groups
- review of secondary data
- semi-structured interviews
- observation

B Target group analysis:
- village map
- transect walks
- time and trend lines
- wealth ranking
- institutional (or Venn) diagrams
- seasonal calendar and gender desegregated activity calender
- daily routine profiles
- gender resource mapping
- benefit analysis
- identifying and ranking problems

C Analysis of organisations:
- project actors matrix
- SWOT analysis

D Project assessment:
- problem tree and objective tree
- gender impact analysis matrix

6. Status and experiences

International
GAS as developed by the Netherlands Ministry of Foreign Affairs is not applied by other institutes.

Ministry of Foreign Affairs of the Netherlands
GAS has a formal basis in the policy of the Ministry and guidelines for application are presented in the "Procedurebundel uitvoering ontwikkelingssamenwerking 1997". GAS is applied 1-2 times per year. During the periode 1992-'94 three pilot studies were executed. These concern a Renewable Natural Resource Management Project in Bolivia, an Integrated Development Programme in two provinces of Burkina Faso and twin projects in Andhra Pradesh, India, a Surface Water Lift Irrigation project and a Borewell Irrigation project. These studies were done to test the preliminary methodological framework and these experiences were used as an input for the elaboration of guidelines for GAS within the Ministry .

Strong points
C The methodology is systematic.
C Participatory approach, which is elaborated extensively by making use of a number of participatory techniques.
C With respect to gender the instrument can be considered as a total approach.

Weak points
C A qualified senior coordinator is a condition for a successful GAS.
C The GAS takes relatively a lot of time and investment at a moment in the project phase when it is not yet sure if the project will be executed.
C Input from the target group is considerable and raises expectations which probably will not be fulfilled.

7. Links with other instruments

Process
The procedure has elements of the EIA and SIA procedure. However, it does not distinguish a specific step for scoping, nor does it come up with alternative solutions for the problem.

Content
GAS is part of the family of social impact assessment instruments because the object and content of study, assessment of impacts groups of people, is the same. The difference between the two instruments is the composition of groups which are studied. In SIA the most detailed group level studied is the community whilst in a GAS the community is split up in different groups of women

The issues of gender and poverty are closely linked. The Ministry procedural guidelines mention the indicators for poverty. These overlap the indicators for gender, although there are some added, especially for women and development. In a GAS these indicators are to be operationalized in the analysis of the target group in the following characteristics:
C The gender division of labour and workload.
C Gender-based control over resources.
C The political dimension of gender relations, in particular their participation in decision making within the household and at community level.

- Images of women and men.
- The physical integrity of women.

In the procedural guidelines it is advised to describe the overlap between poverty, gender and the environment in terms of "Access and control over". Access is defined as the possibility to make use of a (natural) resource. Having control over a (natural) resource is the ability to define its use (GAS, 1997). These issues concern questions like: 'Do women have access to land?' or 'Can women decide which crops to cultivate?'.

For the analysis of the information about 'division of labour', an activity profile can be constructed. In this matrix the rows list up the activities of the community and in the columns the several population groups are presented (see added matrix). As the activities are closely connected to natural resources, this matrix can bridge some information of gender and the environment. Actually, this matrix is almost the same as the users-matrix that is constructed in the analytical tool of function-evaluation.

There is a link with the institutional aspect, as an important part of the GAS is the institutional analysis. It is very specific as it focuses on the capacity and willingness of the organisations that are to implement the proposed project to adopt measures to provide equal rights and opportunities for women in the project activities.

8. Institutions

- The Ministry of Foreign Affairs (DGIS-DST/VR) is responsible for gender.

9. References

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SOCIO-ECONOMIC AND GENDER ANALYSIS

1. Definition

Socio-economic and gender analysis (SEAGA)[20]] is a holistic approach for addressing constraints to equitable, effective and sustainable development. It consists of a conceptual framework and participatory strategies and tools for analysing specific programs and projects, which will result in scenario's for development. It also offers methods for monitoring and evaluation for measuring the effectiveness. SEAGA is a fairly new instrument/method developed by FAO (1995).

2. Objective

The purpose of SEAGA is to achieve equitable and sustainable development by facilitating local empowerment and capacity building of the most disadvantaged groups. SEAGA puts people first, ensuring that women play important roles in the process. Practically this means that SEAGA is looking for ways to transform inequitable relations and create empowerment that will lead to participation in decision making processes which shape power structures and determine access to resources.

3. Procedure, process & methodology

SEAGA is an *ecocentric approach*, considering people as part of nature instead of being separate from nature (anthropocentric). More then other instruments/methods, SEAGA is explicitly based on three key assumptions:

- Social hierarchies exist in every society and often favour the few and disadvantage the majority.
- These hierarchies are embedded in social institutions, which are designed to perpetuate them through control over the environmental and socio-economic resource base.
- Social equity - including gender - can enhance livelihood security, productivity and sustainability because it involves all members of a community in building their capacities for their own development.

The SEAGA approach is visualised in a model of concentric circles, in which the processes, needed to support equitable and sustainable development, are indicated (See figure). There are light bands, which represent *existing structures* that produce inequities (individuals, households, social institutions, environmental and socio-economic resource base). The dark bands (local-level empowerment/participation, and macro level mechanisms) and dark arrows (linking external opportunities and local initiatives) represent the *processes and interventions* that can alter the problems. This can be done by: 1) organisation, 2) education and training, 3) access to and control over resources, 4) policy changes at the macro level, and 5) building local to global linkages.

In the appendix the model, and the elements in the model are described (copy SEAGA manual).

The SEAGA Approach then recommends a procedure to follow for information gathering and formulation of interventions in a participatory way:

20 This description is based on the document: A manual for socio-economic and gender analysis: Responding to the development challenge October 1995.

A. Information gathering
   - Identify secondary sources of information.

B. Analysing social relations
   - Associate with the community and identify disadvantaged groups.
   - Include less advantaged groups as priority partners, discussed with all stakeholders.
   - Use participatory methodologies for gathering information, suggested in the manual.
   - Involve community members in analysis and planning.

C. Assessing the feasibility of solutions
   - Mobilize resources, in money, labour, time, expertise or material.
   - Employ sustainable methods, taking into account environmental concerns.
   - Link local knowledge and experience with macro interventions.
   - Involve disadvantaged groups in macro-processes.

D. Evaluating the project impact
   - Evaluate the impact of the project.

4. Field of Application

SEAGA can be applied in all kinds of development projects in which the local people and their organisational capacity should be strengthened in order to achieve an equitable and sustainable development. It is not restricted to rural or urban projects or a particular sector. It can best be applied on the strategic level, although it could be used on the project level as well.

5. Methods and tools

The manual includes a lot of tools to apply in the process. Many are known, such as PRA, RRA, the logical framework, OOPP. They are divided in 6 categories, although many of the tools can be useful across categories in specific contexts:

A. Organizing strategies
   Strategies: Facilitation, leadership, consensus-building, conflict management.

B. Gathering information and raising awareness
   Tools for gathering information and raising awareness: Interviews, Focus Groups, Wealth ranking, Institutional (Venn) diagrams, Demographic Analysis Activity, Priority Group Analysis, Village Sketch Map, Time and Trend lines, Gender-Desegregated Activity Calendar, Mobility Maps.

C. Defining roles and priorities
   Tools for defining roles and priorities, in which access to and control over resources is a central issue: Access and Control Profile, Gender Resource Mapping, Benefits Analysis, Gender Analysis Activity Profile, Gender Analysis Matrix.

D. Assessing needs and identifying projects
   Assessing Needs/Identifying projects, includes tools to support the decision on which project the community gives priority. The tools facilitate an analysis of the strength and weaknesses, so that the most appropriate project can be selected (compare to socio-cultural part of impact analysis).
   Tools: Problem Case Analysis, Role Plays, Practical Needs and Strategic Interests Analysis, Identifying Problems, Causes and Opportunities, Ranking Problems and Opportunities, Community Action Plan.

E. Planning and project formulation
   Tools for systemising the planning process of a chosen project intervention at the local level: Contextual Analysis, Problem Tree, Objective Tree, Story with a Gap, SWOT, Forcefield Analysis, Project Planning Matrix/Logframe, Timeframe Chart.

F. Strategizing for change
Building, alliances and networks; assessing risks; accessing GIS, using the media, community writing, documentating processes.

7. Status and experiences

International
As part of its development, the SEAGA model has been applied in more than 20 countries in the South. The manual describes an experience in India, with the SARTHI (Social Action for Rural and Tribal Inhabitants of India) Organisation. This NGO has been helping women to meet their needs for production in an ecologically sound manner, as well as helping them to address a broad range of problems. By analysing the SARTHI case it is illustrated how one organisation has worked with women to construct a collective identity, address environmental and economic concerns, protest gender-based injustices, and secure resources and political space. Furthermore the manual described 7 opportunity scenario's, or cases in which the SEAGA approach is applied. SEAGA is build on many experiences with the adaption of tools in the South, as it makes use of and combines existing methods and tools for the participatory process.

Ministry of Foreign Affairs of the Netherlands
SEAGA has no formal status at the Ministry and has not been applied by the Ministry . The Ministry has financially contributed to the development of SEAGA.

Strong/weak points
No experiences documented.

8. Links with other instruments

Planning level
SEAGA can be used for the formulation of projects (and possibly programmes) in situations where a development process is going on. Its point of departure is an organisation (NGO) that is planning an intervention.

Process
The SEAGA process starts with secondary information gathering. However, a large part of the process exists of field work and analysing the information together with local people. It includes the decision on which interventions should be most appropriate. As it is a participatory process, the decision taking should be a process of all, but giving priority to the needs of the most disadvantaged groups. Finally the process includes a system for monitoring and evaluating the impact of the project, by formulating indicators for regular control.

Content
SEAGA is an integral approach, but from a social perspective. It visualises the relationships amongst people, social structures and the resource base (environmental and economical). As linking pin, the "access to and control over resources" is studied in the model (see under Techniques, point C).

Sustainability is achieved mainly by the participation of local people and using their expertise and knowledge, in stead of environmental studies for the long term capacity of the natural resources.

9. Institutions

- SEAGA has been developed by FAO,
  Homepage: http\www.fao.org\waicent\faoinfo\sustdev\seaga
- Many international developing institutions are involved in the process. Among others (the Ministry (DGIS-DSI/VR)) financed a part of the project.
- Clark University, USA; developed the manual.

10. References

- Thomas Slayter, B. et al.: Ä Manual for Socio-Economic and Gender Analysis: Responding to the Development Challenge." ECOGEN, 1995.

GENDER SPECIFIC SECTOR ANALYSIS

1. Definition

The Gender Specific Sector Analysis is a working paper, in which gender issues are highlighted in different fields of development and which can be used as a kind of checklist when a project or programme is formulated in the sector.

2. Purpose

The aim of the working papers is to systematically explore how policy goals are translated into the practice of development interventions and to identify existing gaps in knowledge.
The papers are circulated with the purpose of obtaining feed-back from experts. (Working Paper 1, Women and Development: Gender and Environment.)

3. Approach/Methodology

Is not applicable for the working papers, as it is not an instrument as defined by the Commission[21]]. It does not include a procedure, but only highlights gender-sensitive issues.

The goal of autonomy of women has been operationalised into 11 indicators by the Ministry . These function as items on a checklist to indicate the expected effects of project interventions on the autonomy of women. A crucial element in the assessment of effects on autonomy is the extent to which women have access to and control over these 11 elements.

The 11 indicators are:
1. Nutritional status
2. Health and/or control over fertility
3. Living conditions
4. Participation in decision making processes
5. Knowledge/skills
6. Employment opportunities
7. *Access to and control over means of production*
8. Income
9. (Self)image
10. Organisation building
11. Reduction of workload

In addition, two more questions are considered during project evaluation:
A. Was the target group consulted in the formulation of the project proposal?
B. Do any of the DAC/WID criteria apply? If so, which?

The DAC/WID criteria aim to ensure women's participation and the use of gender expertise in all phases of the project cycle. They concern the following procedural questions to be followed:
- Women from the project target group should be consulted during the development phase of the project.
- Women from the project target group should take an active part in the project during its implementation.
- Project proposals should identify potential obstacles to women's participation. They should also specify the measures to be taken to remove these obstacles.

21 Een middel voor het bereiken van een beleidsdoel, beschreven in een procedure en formeel vastgelegd in een beleidsdocument. De toepassing van een beleidsinstrument geschiedt volgens bepaalde methoden en met behulp van technieken.

- Women and Development expertise should be used throughout the project and project proposals should state how this expertise will be used.

4. Field of application

The policy issues are applicable for all projects/programmes in which gender is an issue.

5. Status and experience

Some years ago there were four sectoral working papers developed by the Ministry (DGIS-DST/VR). They were about: Agriculture, Health, Water and Sanitation, and Forestry and Energy.

There is a complete new series in production. The first working paper on Women and Development is about "Gender and Environment; a delicate balance between profit and loss" (April, 1997). Soon a Working paper on Education will follow.

6. Links with other instruments/sectors

The first Working Paper is about the link between gender and environment, this is elaborated in the relation between the work of women and the use of natural resources. Natural resources are defined as the "quality and quantity of natural resources".

An important link is the social-economic position of women related to their access to and control over natural resources. However, there must be a differentiation in type and quality of natural resources as well as a diversity in the group of women itself. This makes that there is a wide variety in relations between gender and environment, with complementary situations as well as conflicting situations.

In analysis to get to know who gain and who lose by the introduction of specific measures for the better management of natural resources, the following steps must be taken into account (p.3):

- Physical circumstances as well as differences in distribution between social groups (age groups, patrons and clients, land owners and landless)
- Analysis of the relationships in all their complexity: between people and between people and the use of natural resources.
- Examination of the interests that are at stake in relation to a resource.
- Alternatives for sustainable development.

The 11 indicators are linked to each other and can be divided in groups of indicators.

7. Institutions

- Ministry of Foreign Affairs (DGIS-DSI/VR)

8. References

- Working paper 1 Women and Development: "Gender and environment; a delicate balance between profit and loss", NEDA, April 1997.
- Idem, Dutch working version, 1996.
- "Rechten van vrouwen op de natuurlijke hulpbronnen land en water", Lyda Res (red.) er al, Wageningen, 1996.

STRATEGIC ENVIRONMENTAL ASSESSMENT[22]]

1. Definition

Strategic Environmental Assessment is the overall name of a number of instruments to evaluate the effects of:

- non-project actions such as plans, programmes, policies and investment strategies which will result in a series of projects being implemented (e.g. national energy sector investment strategy); and
- cumulative, incremental development initiatives focussed in a specific area which may not be part of an overall plan or programme.

SEA is any systematic process for evaluating the environmental consequences of proposed policy, plan or programme initiatives in order to ensure they are fully included and propriately addressed at the earliest appropriate stage of decision making on par with economic and social considerations (Sadler and Verheem, 1996). In comparison with environmental impact assessment (EIA), SEA systems are less clearly delineated. As the strategic decision making process is continuous and iterative, SEA procedures must flexible and applied in a flexible manner throughout the entire process rather than followed in a narrowly defined sequence of fixed steps. Besides, only some countries and international institutions have formerly established *Strategic Environmental Assessment* SEA systems. Since about 25 years SEA has been developed, mainly on basis of experiences with environmental impact assessment for projects.

2. Objectives

The purpose of SEA is to identify, analyse and evaluate the cumulative impacts of development initiatives which fall outside the scope of other appraisal instruments like EIA. It is to check that no serious negative environmental change is expected (whether or not a plan or programme is already in implementation) or is expected to occur in the foreseeable future (on the basis of certain assumptions) and to optimize positive effects. By doing that, SEA is strengthening project EIA and incorporates sustainability considerations into decision making.

3. Field of application

Criteria for determining when to use SEA:

- If an initiative (except a project) is expected to cause significant, adverse impacts.
- If an initiative is likely to affect the number, location type and characteristics of projects which would be subject to EIA.
- If an initiative affects a sector already identified as an environmental priority.
- If an initiative (including individual projects) may, through cumulative impacts, cause significant adverse impacts in a specific area.
- If there have been a number of incremental, additive initiatives in an area and there are concerns that adverse environmental changes may be occurring which may have negative impacts on the intended benefits of these initiatives.

4. Procedure/ process & methodology

There is no uniform procedure for SEA, the basic procedural steps are as follows:

22 This description of strategic environmental assessment is predominantly based on the following document. B. Sadler and R. Verheem (1996): Strategic environmental assessment, status, challenges and future directions.

1. Screening; determine the need for and type of SEA, by means of a list, a screening mechanism or both.
2. Scoping; identify alternatives and impacts to be assessed, exclude irrelevant information.
3. Outside review; seek input of other governmental agencies, independent experts, interest groups, and the public during scoping and after completion of the SEA.
4. Public participation; involve the public in the SEA process, unless limited by legitimate confidentially or timing requirements.
5. Documentation; present the information, either in a separate document or a chapter or paragraph of the policy proposal.
6. Decision making; take SEA conclusions and recommendations into account.
7. Post decision; identify follow up measures of overall impacts of projects and measures resulting from the policy, plan or programme.

The following five basic steps in a SEA study can be distinguished:
1. Listing objectives and constraints of the planning process.
2. Analysis of the existing environmental context.
3. Specification of policy alternatives and impact identification.
4. Impact analysis and identification of mitigating measures.
5. Monitoring arrangements and evaluation.

Furthermore, there are some elements for an effective SEA process like:
- Public participation, to enhance the quality of the SEA procedure.
- Participation of environmental agencies.
- Suitability with EIA procedures, as well as linkage of SEA to EIA.

There might be a useful hierarchical relationship linking SEA with environmental studies undertaken at the level of individual proposals, which is called "tiering".

5. Methods and tools applied

There is no uniform methodology for SEA. Appropriate methods have to be selected on the basis of decision making and required level of detail.

Step	Examples of methods:
A. Baseline study	- reports and similar documents
	- environmental stock/setting
	- 'points of reference'
B. Screening/scoping	- formal/informal checklists
	- survey, case comparison
	- effects networks
	- public or expert consultation
C. Defining options	- environmental policy, standards, strategies
	- previous commitment precedents
	- regional/local plans
	- public values and preferences
D. Impact analysis	- scenario development
	- risk assessment
	- environmental indicators and criteria
	- policy impact matrix
	- predictive and simulation model
	- GISs capacity/habitat analysis
	- C/B analyses, other economic valuation techniques
	- multi-criteria analysis
E. Documentation for decision making	- cross-impact matrices
	- consistency analysis
	- sensitivity analysis
	- decision trees

6. Status and experiences

International
Worldwide about 16 countries and a number of international organizations have established SEA systems. Many other countries use SEA elements under informal arrangements.

Ministry of Foreign Affairs of the Netherlands
SEA has no formal status within the Ministry other than included in the overall environmental assessment procedures, depending on the legislation of the country but is recommended in the guide for environmental appraisal. SEA has been applied once by the Ministry, as far as known; Strategic environmental assessment for Office du Niger in Mali (the study is executed under a different name). Once, the Netherlands EIA Commission drafted guidelines on the required content of a SEA in the Rio Paute Region in Ecuador, but this SEA has not been executed.

Strong points
- C SEA strengthens project level EIA and addresses cumulative and large scale effects.
- C In the case of sectoral strategies, SEA can play a major role in identifying the environmentally preferred option(s).
- C Incorporating sustainability considerations into the decision making process.

Weak points
- C SEA has no formal/legal basis in a lot of countries.
- C SEA has no uniform procedure and no toolkit for execution. Therefore, execution of a SEA requires a lot of experience in the field of environmental assessment and interdisciplinary working.

7. Links with other instruments

SEA is a policy instrument and the following tools are linked to and can reinforce SEA:

- Technology assessment
  - documents environmental and social implications of technological change;
  - recent areas covered include biotechnology, energy and materials use, transportation and urban growth.
- Resource assessment and land use planning
  - impact zoning and terrain classification for development approvals and control;
  - integrated, capacity-based approach to land use allocation.
- State of environment reporting
  - identifies trends and issues in resource use and environmentally quality;
  - establishes baseline conditions for major ecosystems.
- Green economics
  - macro and micro-level valuation of environmental assets and losses;
  - alternative social discount rates to account for the welfare of future generations.
- Sustainability strategies
  - set objectives, targets, time frames and measures for achieving environmentally sustainable development;
  - incorporate assessment of current conditions (as per Agenda 21).
- International environmental law and policy
  - EA protocols and requirements incorporated in Rio agreements, comprising Agenda 21 and Biodiverstiy and Climate Change Conventions etc; Also included in regional trade agreements and cooperative institutions (e.g. European Commission, North American Free Trade Agreement).

When linked together, SEA and similar policy instruments mentioned above provide the basis for an integrated approach. Their relationship is illustrated schematically in the figure presented below. In this framework the building blocks of a strategic approach to environmental assessment are derived from the foundation of experience with project environmental impact assessment. As such they represent innovative and often long standing attempts to deal with limitations and issues encountered when assessment is carried out largely or elusively at the latter level.

8. Institutions

- The Ministry of Foreign Affairs (DGIS-DML/MI); contact person: Ms Anneke Wevers.
- Netherlands Commission for EIA; SEA expert: Mr Rob Verheem.
- Netherlands consultancies, involved in SEAs: DHV Environment and Infrastructure.

9. References

- "Handbook for Environmental Review for use in Development Co-operation", Third Draft for Review and Comment by the Steering Group, December 1997, by Ron Bisset and Liesbeth Verbeek. A revised version of the handbook (summer 1999) is available at the world wide web: www.minbuza.nl.gea
- Sadler, Barry and Rob Verheem, "Strategic Environmental Assessment, Status, Challenges and Future Directions", 1996.

STRATEGIC ENVIRONMENTAL ANALYSIS

1. Definition

Strategic Environmental Analysis (SEAn)[23]] is a methodological framework containing practical tools and guidelines for analysing the environmental potentials for and constraints on human development, during the formulation or revision of strategies, programmes and policies. SEAn has been developed in the Netherlands, by the consultancy bureau AIDEnvironment in joint cooperation with SNV, on the basis of experiences with environmental profiles, EIA and SEA.

2. Objective

The overall aim of SEAn is to improve the planning of sustainable development processes by raising the level of environmental knowledge and understanding, in the earliest possible state of policy-making. As often decisions are made and priorities are set according to economic and social objectives only, SEAn is an integrated analysis method to take better account of environmental issues, opportunities and problems. Thus, SEAn aims to put the environmental issues into a broad perspective of sustainable development.

3. Procedure/process & methodology

The main methodological steps in SEAn are as follows, they are categorized in four clusters:

A. Society-environment context analysis
   - Finding the relevant environmental functions in the area (goods and services) and the relevant stakeholders dependent on these functions.
   - Assessment of current trends in environmental functions, revealed by environmental indicators.
   - Assessment of the consequences (impacts) of trends on stakeholders, future generations and natural values.
   - Stablishment of thresholds and norms for relevant environmental trends.

B. Environmental problem analysis
   - Environmental problem analysis: defining the main environmental problems, identifying the causal activities, actors and underlying factors (root causes).

C. Environmental opportunity analysis
   - Opportunity analysis: inventory of comparative advantages and opportunities relevant to the environment; inventory identifying the actors and factors to realize environmental opportunities and identification of win-win options.

D. Formulation of a sustainable development strategy
   - Synthesis of the key factors and actors and definition of environmental and / or sustainable development strategy by integrating priority issues from environment, social and economic domains; planning of sectoral and/or inter-sectoral strategic orientations.
   - Strategy for implementation/follow-up of the sustainable development strategy.

The SEAn process is executed by local authorities, consultants and/or NGO's and can be facilitated at several moments by consultants. The total process can be done over a period of one up to some months depending upon the set objectives, the available budget, the level of detail, the available data and manpower and the intensity of stakeholder involvement. the latter

23 This description is based on the document: Strategic Environmental Analysis, a framework for planning and integration of environmental care in development policies and interventions. Reader with theoretical background and application guidelines. Prepared by J.J. Kessler AIDEnvironment and SNV, January 1997.

is considered as an essential element of SEAn. Normally, SEAn involves a number of workshops at different levels. For high-level decision makers, a quick scan (one workshop) could be useful given sufficient preparation and level of participation.

4. Field of application

SEAn is applied in the early stages of policy making as a preparation for the formulation of policy, programmes or even project objectives. It is important that the situation is open for the generation of opportunities and the adjustment of existing PPP's. A SEAn can best/primarily be applied to a geographical region, either administrative (e.g. a country) or functional (e.g. a water catchment area or a region inhabited by a particular social group). SEAn can also be applied to a certain sector, if the sector is put in a broad sustainable development perspective including associated sectors.

5. Methods and tools (optional)

A. Society-environment context analysis
- review available experiences
- budget analysis
- workshop to set tor
- environmental profiles
- stakeholder approach
- land evaluation/GIS
- resource use surveys
- development goals
- carrying capacity
- safety perceptions
- rapid rural assessments
- resource flow charts
- RRA tools
- historical mapping
- GIS, aerial photos
- environmental impact chain
- trend impact matrix with final objectives (part of function evaluation)
- environmentally utility space

B. Environmental problem analysis
- risk analysis
- economic valuation tools natural resource accounting,- C/B analysis etc.)
- precautionary principle
- baseline data
- poverty analysis
- gender analysis
- problem-in context analysis method, actor's field

C. Environmental opportunity analysis
- land evaluation
- market analysis
- inventory of indigenous knowledge systems
- inventory of innovative individuals
- historical trends
- baseline data
- poverty analysis
- gender analysis
- gender analysis
- problem-in context analysis method, actor's field

D. Formulation of a sustainable development strategy
- identification of key actors and factors
- sectoral analyses
- policy and institutional checklists
- institutional capacity analysis (strengths and weaknesses)
- project and programme cycle procedures
- evaluation and update of policies
- monitoring and evaluation

6. Status and experiences

International

Initially, SEAn has been applied mainly by SNV with facilitation by AIDEnvironment, but it is gradually also being applied independent from these organisations.

Ministry of Foreign Affairs
The instrument has no formal status at the Ministry but the development of the instrument has been financed by SNV. The Ministry promotes the further development of the SEAn instrument. In the period 1996/1998 the instrument has been applied more than 10 times. The first experience was in Zimbabwe (1997), development of four district plans. Teams of six to eight participants were formed in each district. The project has been running for about a year, with variable time spending on the SEA analysis. Experience 2 was for the National Sustainable Development Strategy in Benin, in order to judge which projects and programmes comply with the sustainable development criteria in Benin. The whole exercise is to be considered as a scoping before actual fieldwork takes place. Experience 3 was the preparation of a regional development plan for SNV in Ghana. Because the analysis was in the first place for the development activities of SNV, the regional authorities were involved in a later stage. The results were to adjust and improve the overall country programme of SNV in Ghana. Experience 4 involved a train the trainers course to representatives of 10 African NGO's, in a seven day work shop. The purpose was to develop strategic plans for the NGO's.

There are more experiences going on (in Latin America and Africa), on which the SEAn framework is further developing. The aim is to adjust it to an even more integral strategic planning instrument, with more attention for gender, economic and poverty issues. For that purpose, a SEAn platform is in the making.

Strong points

- The instrument as a total is clear and balanced. Results of steps are used as inputs for other steps. Problems are not only analysed but also explained. The instrument provides insight into micro-macro relations and needs and problems of target groups and it is pro-active looking at opportunities. The step by step approach is strongly structuring the process and contributes to capacity building at local level.

Weak points

- The instrument takes the environmental domain as starting point for the analysis. In this analysis social/gender and economic aspects (the so-called cross-cutting issues) are not yet considered sufficiently. A balanced incorporation of these aspects in the analysis can be improved. However, this does not mean that the analysis was aimed to become an integrated analysis, but only to contribute to that.
- The opportunity analysis, which is unique for this methodology, needs further elaboration.

7. Links with other instruments

The instrument SEAn can be characterized as a variation to Strategic environmental assessment. The most important difference between these two instruments is the initial phase. SEAn start with an open planning process (no plan exists) whilst a SEAs mostly starts with a preliminary plan. According to SEAs experts, SEAn is a good adaption of the SEAs principles and can best be applied for regional rural planning (within a certain region a regional as well as a sectoral in developing countries. Within a selected region SEAn can be applied for analysis of a region as well as a sector.
SEAn has strong similarities with the integrated (poverty, gender and environmental/AVM) profile. Both instruments can be characterized as instruments for strategic rural/regional planning. In comparison to the AVM profile SEAn is more analytic and less descriptive, and SEAn is better elaborated by making use of a step by step approach.

8. Institutions

- AIDEnvironment, Amsterdam (developed the SEAn framework);
  contact person: Mr Jan Joost Kessler and Ms Marjon Reiziger
- SNV, The Hague; contact person: Mr Albert Heringa
- Ministry of Foreign Affairs of the Netherlands supports the development of the SEAn instrument by financing the SEAn co-ordination platform

9. References

- AIDEnvironment (1997): Strategic Environmental Analysis, a new planning framework for Sustainable Development, by AIDEnvironment, Amsterdam. Folder.
- AIDEnvironment (January, 1997): Strategic Environmental Analysis, a framework for planning and integration of environmental care in development policies and interventions. Reader with theoretical background and application guidelines. Prepared by J.J. Kessler, AIDEnvironment and SNV.
  An update of this reader is published in 1999.
  Homepage: http\www.seanplatform.org

ENVIRONMENTAL OVERVIEW

1. Definition

The environmental or strategic overview [24]] is a participatory creative process, used in the formulation stage of development activities, that leads to early identification of environmental and social impacts and opportunities for programming these activities. The environmental overview is an appraisal- and project formulation tool as the environmental overview includes modification of the draft project / programme. Environment is defined as including, social, cultural, health, and economic dimensions not just the biological and physical. The EO is a rapid environmental assessment tool and it works as a form of strategic assessment in developing countries. This instrument developed by the UNDP has become full-grown in the development context.

2. Purpose

The purpose of EO is to improve the quality of projects and programmes in such a way that they contribute to environmentally sound and socially acceptable development.

3. Procedure/process & methodology

The approach can be characterized as follows. A draft project /programme is assessed by a multidisciplinary group of experts in a one day workshop and on basis of this assessment the project / programme can and if required will be modified. This assessment is guided by a number of questions to be answered.

- Questions regarding the base line conditions of the project / programme:
- What are the biophysical and social environments of the project area?
- What are the major environmental and social issues which currently exist in the project area?
- What are the economic forces which are currently operating in the project area?
- What are the current management practices and capabilities in the project area?

Questions regarding the impacts and opportunities of the project / programme, and how the draft project / programme can be redrafted in an operation strategy to take these and the baseline conditions into account:

- What are the major natural and socio-economic impacts and opportunities associated with the implementation of the project?
- What modifications / alternatives are there for project design?
- What is the operational strategy to achieve the modifications / alternatives or to address issues described in the baseline conditions?

There are four critical conditions to the successful application of an environmental overview:

- The project / programme must be in its draft formulation stages.
- There must be sequential completion of each of the structured questions of the environmental overview.
- The environmental overview must be undertaken using a broad mix of specialists and others.
- The process must include modification of the draft project / programme, (if required) as an integral part of the environmental overview.

24 This description is based on the following document: The environmental overview in development project formulation. The UNDP environmental management guidelines. By: L.A. Brown. In: Impact Assessment. Vol. 15; 73-88, March 1999. In most UNEP documents this tool is called environmental overview but sometimes it is called strategic overview.

Experience learned that an EO can be applied successful due to the following reasons:

- usefully artificial distinctions between social and biophysical dimensions of development activity;
- emphasises the whole system in which the development occurs. Participants have to step outside their disciplinary and line agency bounds;
- sets a clear and integrated base line that is critical information against which sectoral managers and decision makers can effectively judge needs, impacts and opportunities;
- brings economics, environment, gender, livelihood and poverty issues into clear counter position and examines current capacity to manage these issues;
- requires a mix of participants which brings a broad range of knowledge and perspectives to the development problem;
- provided it is effected in the earliest stages of project/programme formulation, it is relatively unthreatening to the proponent;
- provides the right environment for creative and lateral thinking;
- effectively empowers a diverse range of environmental and social objectives to incorporate into development planning;
- has the potential to empower affected groups if they are included in the participatory activity.

4. Field of application

The environmental overview can be applied for projects, programmes, sectoral analysis and policies.

5. Methods and tools applied

There are no specific methods and tools mentioned in the guidelines for application of the EO apart from a workshop in with a draft project or -programme is assessed and if necessary redrafted by a multidisciplinary team of expert by making use of a set of questions to guide this assessment.

6. Status and experience

Strong points:

- It is a flexible tool which can be executed within a limited time frame (a maximum of two days).
- Due to the multidisciplinary character of the process, the formulated project / programme is mostly more integrative of character than the original set up and there is more support from the different disciplines due to the joint assessment.

Weak points:

- Lack of information on the current situation and the impacts of the proposed project /programme and therefore the assessment is based on a large number of assumptions and a high level of best professional judgement. It is a rapid assessment tool and therefore quick but dirty.

7. Links with other instruments

The EO is part of the family of environmental assessment instruments. The difference between the EO on the one hand and EA and SEA on the other hand is the time necessary to apply the respective instruments. An EO can be executed in one day whilst the execution of an EA and SEA takes a minimum of several months up to one year for the more complex projects, programmes or plans. Of course there is an enormous difference in the level of detail of the studies and the quality of the data used in those studies. Therefore, these instruments can not be compared with each other they cover a different niche in the formulation and appraisal phase of projects and developments. An EO should explicitly be applied in the first phase of formulation of a programme or project. Furthermore, in case of significant potential environmental/social/health impacts of a plan, programme or project an EO should be followed by application of respectively a SEA or an EA.

8. Institutions

- UNDP; contact person: Ms Jorgensen; e-mail: karen.jorgensen@undp.org

9. References

- Brown, L.A.: The strategic overview: UNDPs approach to SEA, January 1997.
- Brown, L.A.: The environmental overview in development project formulation. The UNDP environmental management guidelines. In: Impact Assessment. Vol. 15; 73-88, March 1997.
- Brown A.L.: Further SEA experience in development assistance using the environmental overview. Paper delivered at the IAIA 1997 Conference in New Orleans; 28-30 May, 1997.

ENVIRONMENTAL (IMPACT) ASSESSMENT

1. Definition

An Environmental Impact Assessment or Environmental Assessment (EA)[25]] is a decision support instrument which is executed to obtain relevant environmental information for the appraisal of a proposed project activity. EA has been developed in the seventies in the USA. From there, it developed into an instrument which has a legal basis in more than hundred countries, nowadays.

2. Objective

The purpose of EA is to improve well informed decision-making, in particular information on environmental impacts which might occur due to the implementation of a certain activity.

3. Procedure/process & methodology

The main procedural steps in EA are as follows:

1. Screening; to determine whether an EA is needed for the proposed activity, looking at the kind of the activity and the area where it is planned.
2. Scoping; to determine the range and significance of impacts to be predicted and evaluated, identify feasible alternatives, collect data and formulate a plan for stakeholder involvement;
3. Preparation of the EIS; on basis of the EIA study:
   A. Project setting and description of the proposed activity ;
   B. Description of the present environmental situation and the autonomous development;
   C. Development of alternatives and mitigating measures;
   D. Identifying(significant) impacts of alternatives;
   E. Identifying costs and benefits of the alternatives;
   F. Comparison of the impacts (costs and benefits) of the alternatives;
   G. Determining gaps and knowledge in data and information;
   H. Participation of stakeholders in the preparation of the EIS.
4. Reviewing of the EIS; to determine if the information provided in the EIS is complete and correct;
5. Monitoring and evaluation; to measure if the potential impacts occur and to determine if supplementary (mitigating) measures are required.

Characteristic elements of EA are:

- Comparative evaluation of all reasonable alternatives which will achieve the intended development objectives.
- Integration of environmental, social, health and economic impacts, in a single study and report, to the extent feasible within the context in which an EA is being implemented.
- Consultations with all stakeholders including local communities and NGO's at different stages in the EA process, but particularly during the scoping phase and when draft or final reports are available.
- Use of EA reports as the initial foundation for a continuing programme of adaptive impact management after an authorization decision.

Furthermore, there are some elements for an effective EA process like:

- Timing, an EA should be initiated as early as possible.
- Public participation, to enhance the quality of EA procedure.
- Participation of environmental agencies.

25 This description is mainly based on the following document: Handbook for Environmental Review, NEDA, 1998.

At present, staff of the embassies and of the Ministry staff in the Hague have access to the expertise of the Netherlands EIA Commission to advice on screening, scoping and reviewing.

4. Field of application

EAs are executed when the results of Environmental Screening indicates that an EA is required. Within the Ministry screening has been decided upon the DAC/CRS codes, but there is discussion whether this screening tool will be used in future. EA should be initiated as early as possible during the formulation stage, but at least before the decision on the project intervention will be taken.

5. Methods and tools applied

A. Problem analysis
   - problem-in context analysis
   - problem tree

B. Description of the present environmental situation and the autonomous development
   - geographic information systems
   - historical trends

C. Development of alternatives and mitigating measures
   - land evaluation
   - potential analysis

D. Identifying (significant) impacts of alternatives
   - checklists
   - matrices
   - networks
   - overlay-techniques
   - modelling
   - risk assessment

E. Identifying costs and benefits of the alternatives
   - environmental costs/benefits analysis

F. Comparison of the impacts (costs and benefits) of the alternatives
   - matrices
   - multi-criteria evaluation

G. Determine gaps and knowledge in data and information
   - expert judgement

H. Participation of stakeholders in the execution of the EA and preparation of the EIS
   - workshops

6. Status and experiences

International
EA has a legal basis in about hundred countries and in a great number of countries EA will get a legal basis within a couple of years.

The Ministry of Foreign Affairs of the Netherlands
EA has a formal basis in policy in the sense that staff is obliged to see to the proper application of the national legislation and / or to support its application and provide capacity building and guidelines for application are presented in the "Procedurebundel uitvoering ontwikkelingssamenwerking 1997". EA is regularly applied in NEDA projects, on average 3-5 times per year. When applied, the EA regulations of the recipient country are used. Recent research showed that almost all countries, where NEDA is financing projects, have EA regulations or they are developed (Mulders, 1997).

Strong points

- Improved project design/siting.
- More informed decision-making.
- More environmentally sensitive decisions.
- Increased accountability and transparency during the development process.
- Improved integration of projects into their environmental and social setting.
- Reduced environmental damage.
- More effective projects in terms of meeting their financial and/or socio-economic objectives.
- A positive contribution towards achieving sustainable development.

Weak points

- Limitations associated with the technical knowledge and ability of those involved in the execution of the EA study and preparation of the EIS and those managing the EA process.
- Structural weaknesses and limitations resulting from the focus of EA on individual projects and activities, so that the combined effects of a number of projects in a specific area remain unclear. A Strategic EA can overcome this problem.
- Limitations which has to do with the quality control of EA. Conditions for a qualitative good EA and EIS are: transparency of the process, public participation and independent review of the EIS.

7. Links with other instruments

The scope of subjects studied in EA is expanding. In a growing number of countries especially countries of the south, social/health and economic aspects are studied equally to environmental aspects in an EA. Since 1987 the World Bank is including these subjects in EA. In most EA studies health aspects are studied as an integral part of EA. Predominantly, health experts again and again recommend to develop a separate health impact assessment (HIA). This has to do with the separated networks in which the health and environmental experts operate. The World Health Organisation rejects the idea of a separate HIA and supports the idea of integration of health aspect in EA.
As a result of an expanding scope in EA social and gender aspects are studied in EA. Therefore, tuning of EA with GAS and / or SIA becomes more common practice although positive experiences with tuning and / or integration are limited.

8. Institutions

- Netherlands Ministry of Foreign Affairs (DGIS/DML/MI); contact person: Ms Anneke Wevers, e-mail: wevers@dml.minbuza.nl
- Netherlands Commission for EIA, e-mail: mer@eia.nl; technical secretaries: Mr Arend Kolhoff, e-mail: akolhoff@eia.nl; Mr R. Post, e-mail: rpost@eia.nl; Ms Ineke Steinhauer, e-mail: isteinhauer@eia.nl

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Homepage: http\www.minbuza.nl

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HEALTH IMPACT ASSESSMENT

1. Definition

The Health Impact Assessment (HIA)[26]] is a method to forecast impacts on human health, due to changes in the physical environment. With respect to assessment of project in developing countries HIA can be a component of Environmental (Impact) Assessment but in practice this not always the case. A HIA should be gender specific.

2. Objective

The HIA was developed to identify, predict and appraise environmental factors that may affect human health in order to design and execute projects which have considered the consequences for the health situation. These factors are not disease agents in themselves, but may facilitate human contact with disease agents or may weaken human resistance to infections.

3. Procedure / process & methodology

The main steps in HIA are:
- identification of health hazards
- interpretation as health risks
- management of health risks

The operational procedures required to achieve these steps are:

A. Initial screening of the project for health hazards
In this step the health hazards of a proposed project are identified. In rural agricultural projects the main hazards for health are: (i) Communicable Diseases, infectious agents transmitted in air, water, food, dust, etc and; (ii) Malnutrition, due to poor food conditions (year round availability and quality). The WHO (1991) developed special guidelines for addressing and forecasting disease implications in this sector.

B. Initial health examination or rapid appraisal
In the initial health examination or rapid appraisal an interpretation is made of the potential health hazard as a health risk. This is done on basis of existing information. First, vulnerable communities/groups (gender specific) are distinguished, such as: construction workers, displaced communities, casual workforce, downstream populations. Secondly, the particular environmental factors such as: location, occupation and behaviour (use) are described. Finally, the description of the capability of environmental protection agencies are part of the initial health examination. The results of these three issues are presented in a brief initial health examination report.

C. Execution of a health impact assessment study
A HIA is carried out by a specialist. In principle the procedure is equal to the EIA procedure. The result will be a Health Impact Statement.

D. Health risk management
This step consists of incorporating safeguards and mitigation measures in the project design and operation. In agricultural development and infra structural projects, there is a particular risk for *vector-borne diseases* (eg. Malaria, schistosomiasis). In these projects Environmental

26 This description is based on the following document: The halth impact assessment of development projects. The health impact programme. Liverpool school of tropical medicine, London, 1995. By: M.H. Birley.

Management provides a good opportunity to get control over these diseases. Controlling hazards in the work of the environment, can also supply opportunities for sustainable solutions in an area. There are all kinds of interventions, like dust suppression, general ventilation, segregation. These include both technical solutions as well as socio-economic or cultural inspired solutions (see Birley, p.36).

4. Field of Application

A HIA should be applied, preferably as part of an EIA, for all projects related to water, infrastructure and polluting activities.

5. Methods and tools applied

No specific tools are mentioned to execute an HIA.

6. Status and experiences

International
There is a lot of experience with the execution of HIA in developing countries, especially in the field of large dams (Oomen, 1981) and irrigation projects (WHO, 1991).

Ministry of Foreign Affairs of the Netherlands
As far as known the Ministry does not apply HIA separately for the appraisal of projects. The Ministry is of the opinion that HIA should be part of an EIA. In most EIAs, executed on request of the Ministry , health is considered.

7. Links with other instruments

It is preferable to study health aspects as part of an EIA instead of a separate HIA. An omission in a lot of EIA studies is the absence of a specialist on health assessment. The reason for the existence of a separate HIA has to do with the two different social groups in which environmental assessment experts and health assessment experts operate.

8. Institutions

- International Institute for Land Reclamation and Improvement in Wageningen, The Netherlands
- School of Tropical Medicine in Liverpool, United Kingdom. Contact person Mr M. Birley mhb@liv.ac.uk
- WHO, Panel of Experts on Environmental Management on Vector Control (PEEM), Secretariat, Geneva

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INTEGRATED / ENVIRONMENTAL PROFILE

1. Definition

The Integrated Profile[27]] is a document that describes the poverty situation, the gender relations and the state of the environment, as well as the cross-links and it gives an indication of the connection with the institutional and socio-cultural context with possibly the common grounds with national and international developments[28]]. Integration should not only cover the Netherlands AVM criteria[29]], but is more broadly defined as all aspects in the context of the development process, like political, economic, social and institutional issues. This instrument has been developed by the Ministry (first experience in 1993) primarily on basis of the experience with environmental profiles. Environmental profiles focussed on the description of the environmental situation.

F

In the period 1987-1999 more than 20 environmental / integrated development profiles have been prepared. Two generations can be distinguished. On request of the Ministry the first environmental profile for Botswana was prepared in 1987. The aim of the first generation environmental profiles was to provide a description of the present environmental situation. An evaluation of a number of profiles learned that the process of preparation became more important than the outcome a well illustrated report. Criticism on these profiles was that they focussed to much descriptive and the analysis of the problems and underlying causes was limited. Therefore, these profiles could not be used for planning and identification of projects. The San Antao Integrated profile (1993) was the first attempt to prepare an integrated profile and it was the start of a second generation of profiles with a much wider scope.

2. Objective

The purpose is the contribution to a social, ecological and economic sustainable development through the insight in the factors that influence the sustainable development situation of a region. The aim of the environmental profiles was to get insight in the actual development situation, the actual report or profile was an important output. Since the mid-nineties the aim of an integrated profile is to support the local authorities at district or provincial level with planning and policy formulation. It can also be used by NGOs for planning of activities at district/regional level. In the latter situation the process focussing on integrated analysis and communication between stakeholders has become more important than the actual report or profile. The present day integrated profile has become an instrument for strategic planning at local/regional level[30]] .

3. Procedure/process & methodology

The integrated/AVM profile is an instrument that has been developed over the last years. Still, there is not a blue print for the research process. For integrated profiles in four districts in Bolivia the Ministry drafted a ToR document[31]], which is used as the state of the art of the integrated/AVM profile.

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27 This description is primarily based on a report of a workshop by DGIS on integrated profiles. Idem Consult: Verslag: Studiedag AVM geintegreerde profielen. Den Haag 27 oktober 1995.

28 Definition from the "*Tor voor de Geïntegreerde basisprofielen van de departementen Chuquisaca, Chochabamba, Tarija en Potosi in Bolivia*".

29 AVM is a Dutch abbreviation for respectively "armoede" = poverty, "vrouwen" = gender" and "milieu" = environment, representing the Netherlands objectives with respect to Development Cooperation.

30 Although the present day profiles are practically all integrated profiles, the majority is still mentioned - Environmental profile - which is confusing and does not reflect the wider contents of these profiles.

31 see note 1

The contents of the process resulting into an integrated profile exist of five steps:
1. description of the national and international context of the studied region;
2. description of the socio-economic framework, including productive activities, access to resources and social services, gender relations and expectations for the future;
3. description of the natural resource base, in potential, pollution, exploitation and expectations for the future;
4. integrated problem analysis, divided in a problem description of the several sectoral angles and an identification of the key factors for solutions;
5. suggestions for development of scenario's.

In step 3 it is recommended to describe the natural resources in its multi functionality and the principle of sustain ability. By doing this, the model of - is presented as a useful tool. This model is anthropocentric.

In the integrated problem analysis (step 4) the relationships between poverty, gender and environmental aspects should be made clear. Therefore a - can be used as tool to detect the most important interrelated subjects.
In the next phase an **A - -C** analysis can be done to find a) the rational *options* for action that stakeholders have and b) the *motivations* they have for their choice out of the options.

Participation of local professionals is very important in the research process.

4. Field of application

The integrated/AVM profile is best used for the planning of development activities in regions supporting the local authorities and or NGO's.

5. Methods and tools

No general information of methods and tools exists. The methods and tools that are presented in the terms of reference for Bolivia give an indication for how an integrated/AVM profile can be executed.

*6. Status and experience*s

International
Environmental profiles have been prepared for a number of countries by the Ministry of environment or by donor countries. These profiles provide information on the present environmental situation of a country. The main environmental problems, an analysis of these problems and in some cases trends in environmental degradation are described. These profiles do not elaborate development scenarios.

Ministry of Foreign Affairs of the Netherlands
The AVM profile has a semi formal status at the Ministry . The first AVM profile was executed in 1993; Santo Antão Integrated Profile. A very important lesson from this study was that there should be enough time for discussion and a methodology should be developed. Most importantly there should be an institutional setting or enabling environment for the (slow) integral study process.

E	**I**
Botswana, 1987	Cabo Verde - San Antao, 1994
Indonesia - West Java, 1988	Tanzania - Monduli/ Mbulu, 1997
Zambia - Western province, 1988	Occupied territories - Gaza, 1994
Sudan - Kassala, 1989	Bolivia - Chuquisaca/Chocha-bamba/Tarija/Potosí, 1998
Yemen - Al Bayda/Tihama/Dhamar, 1990	Egypt - Urban Gizeh, 1998
Senegal - Vallee de Senegal, 1990	Egypt - Aswan, forthcoming in 1999
Egypte - Fayoum, 1992	
Pakistan - Balochistan, 1992	
Mali - Mali-sud, 1992	
Pakisat - North West Frontier province, 1994	
Burkina Fasso, 1994	

Strong points
- In general environmental problems are analysed thoroughly and trends in the change of the environmental situation are described.
- Attempt to execute an integrated analysis.
- The information is provided in an accessible and attractive manner by making use of photographs, figures and tables.

Weak points
- The AVM criteria are donor driven. Because of the focus on poverty, women and environment there is a risk that the scope of analysis is to limited;
- A clear step by step approach is missing;
- The integrated approach and analysis is still weak and needs to be elaborated.

7. Links with other instruments

The instrument is primary linking poverty/gender with ecological aspects, taking into account the institutional setting. This design is directly derived from the Dutch development goals, see also SEAn. The experiences with preparation of environmental and integrated profiles is used

for the development of SEAn. If a SEAn is executed over a longer period (a couple of months) one of the outcomes of the SEAn process could be an integrated profile.

8. Institutions

Ministry of Foreign Affairs (DGIS-DML/MI) is pusher in the development of the integrated/AVM profiles, constantly discussing this with other departments and consultancy agencies.

9. References

- Terms of Reference Geïntegreerde basisprofielen van de departementen Chuquisaca, Chochabamba, Tarija en Potosí, Bolivia, 1997.
- Verslag: Studiedag AVM geïntegreerde profielen, Den Haag 27 oktober 1995 door IDEM Consult.
- Report on discussion of the project "Environmental Profile of Urban Giza"June 12th 1998 by HARP.

In this section tools for financial and economic appraisal are described[32]].

What is a financial and economic appraisal (FEA)? What questions should an FEA answer? How does FEA relate to other appraisal issues? These questions are addressed in this section, which provides a framework for more specific and detailed analysis in the subsequent sections in which the different economic appraisal instruments are described.

Projects are interventions to address problems in society. FEA is a means of selecting those projects which would contribute most to the social-economic development of developing countries. The tools for financial and economic appraisal are given in Table 1.

32 This description is based on the following document: Netherlands Economic institute (1996): Financial and economic project appraisal for non-econmists (pp. 10-28).

T Tools for financial and economic appraisal

Main type FEA	Technique	Main issues
Financial	Cash flow analysis (CFA)	C Throughout the project period is sufficient money available to cover outlays (*liquidity* / *sustainability*) C To what extent should beneficiaries pay for services (*cost recovery*) C Are funds available to cover investments (*financing plan*)?
	Cost-benefit analysis (financial CBA)	Over the life-time of a project, do revenues justify investments to private investors (*profitability*)
	Cost-effectiveness analysis (financial CEA)	Which alternative gives the highest revenues per unit of costs (or the lowest costs per unit of revenue)?
	Financial statements for organizations (FS)	Is the organization that will ultimately incorporate a project in its activities financially in a healthy condition?
Economic	Analysis of context	C What economic problem the project is intended to address? C Are external economic conditions sufficiently favourable to the project?
	Cost-benefit analysis (economic CBA)	Over the life-time of the project, do benefits justify the use of scarce resources to society (profitability)?
	Cost-effectiveness analysis (CEA)	Which alternative gives the highest benefits to society per unit of costs (or the lowest costs per unit of benefits)?
Social	Cost-benefit analysis (social CBA)	How is the profitability of a project to society affected if normative views on income distribution are incorporated?
Mixed	Multi-criteria analysis (MCA)	What is the relative performance of project alternatives given their scores on financial, economic and other criteria?
	Logical framework approach (LFA)	Are the objectives, activities, inputs and outputs of the projects, and external assumptions mutually consistent?

1. CBA - a way of thinking

It can be argued that the *CBA as a way of thinking* is more important to project appraisal than the *CBA technique.* Only an economist is trained to apply the CBA technique. The CBA way of thinking, however, constitutes a set of postulates that anyone involved in policy making may satisfactorily adopt and apply, while not knowing the CBA technique'. Moreover, application of main elements in the CBA way of thinking may lead to higher quality appraisal studies, even if due to a shortage of data the CBA technique[33]] is not applicable. The CBA way of thinking provides guidelines for the definition of a project, the distinction between private and national perspectives, definition of effects, valuation of effects, and treatment of uncertainty.

Project design and alternatives

The first element in the CBA way of thinking is the definition of the *scope* of a project. Project promoters often favour comprehensive or integrated projects. Is this a sound approach, or should several separate projects be designed? And should appraisal focus on the complete set of activities, or on separate activities? For instance, a proposed rural development project may comprise activities such as provision of seed and fertilizer, agricultural extension services, construction of irrigation works, credit schemes, support to trade unions, and improvement of basic needs provision. Should this be one project or a set of projects?

In the CBA philosophy, it is only useful to design integrated projects if overall objectives cannot be achieved without the implementation of all interdependent activities. If rural development would really require simultaneous implementation of all activities than a single project is appropriate. Two observations argue against this construction. Firstly, development is extremely complex, and integrated projects only add to this complexity; simple projects are easier to manage. Secondly, even though project promoters may argue that one activity cannot be implemented without the other, this may not be really true. A critical review is advisable.

If a project comprises a set of interrelated activities, appraisal should focus on the overall project. The individual components by themselves need not fulfil financial-economic appraisal (FEA) standards. Each component should be appraised separately. Consequently, if some components fail to pass feasibility tests, a more modest integrated project would result.

Closely related to the scope of the project, is the choice of *alternatives.* Project proposals are often submitted to aid agencies with only one of two decisions to be made: approval or rejection. The CBA philosophy emphasizes a two-step approach:

- What would happen if the project is not implemented? This fundamental question is often not raised, let alone answered. But a project is only justifiable if a country, a region, a group is better off with the project than without it. A benchmark for consideration of a project is hence the *without-case,* or *base-case,* or *zero-case.*
- If the project is implemented *(with-case),* could this be done in different ways? CBA stresses a search for alternatives to minimize the risk of ignoring more attractive opportunities. In early appraisal stages especially the question should be addressed whether the project proposed is really the best solution to a problem in society.

Different perspectives: macro vs micro

33 People sometimes follow the opposite path, applying the CBA technique without understanding its logic. The direct result is misleading and, from a development perspective, dangerous CBA studies.

Another aspect of the CBA way of thinking is the awareness that the question of the attractiveness of a project should sometimes be explored from different *perspectives*. In more formal terms: there is a linkage between *objectives and what are considered costs and benefits* (effects). In general, benefits reflect gross contributions to objectives, whereas the costs reflect the use of all resources required to achieve them. Much therefore depends on whose objectives are applied. What is attractive at the micro level may be considered bad at the macro level. When going from micro (private) to macro (national), definition and the valuation of effects changes.

Effects: incremental analysis

In the CBA way of thinking *effects* are defined as changes (costs or benefits) that may be attributed to a project. Take for example a project involving rehabilitation of a road linking two regional centres. At present, 10,000 cars use this road daily. Three consultants are asked to estimate the benefits of road improvement, basically additional traffic on the road. If the project is implemented, they agree, daily traffic at the road will total 14,000 cars after three years. Strange as it may seem, the consultants gave widely differing estimates of the project benefits: 4,000, 1,000 and 8,000 cars. Whatever the price used to value these benefits, the estimates vary from a 10 to 80% increase. The consultants give the following justifications for their estimates:

- consultant 1: the benefit is 4,000 because this is the increase in daily traffic;
- consultant 2: the benefit is 1,000 because even if the road is not rehabilitated, traffic will increase to 13,000 because of economic growth in the region and drivers are not concerned about deteriorating conditions of the road;
- consultant 3: the benefit is 8,000 because without the project traffic would decline to 6,000 car/day due to further deterioration of the road conditions.

Consultant 1 sins against the CBA principle that effects should be estimated through *incremental analysis. To* see which changes in traffic may be attributed to the project, consultant 1 should have investigated the difference between the expected situation if the project is implemented (the *with-case)* and what would have happened without the project *(without-case)*. In fact, the focus was incorrectly on the difference between the traffic before (present, pre-project) and after the project. This approach is only correct if the project is the only factor influencing traffic. As can be concluded from the arguments of the two other consultants, however, there are numerous factors affecting traffic volume.

Whereas both consultant 2 and consultant 3 apply the with-without principle soundly, they differ on traffic forecasting and consequently arrive at widely different estimates on the without-case and the project benefits. Rather than making a methodological error as consultant 1, these consultants simply make different traffic forecasts. The answer to that technical problem is to improve the quality of these forecasts, for instance through surveys.

Extensions and expansions of *existing* projects or organizations may often be defended on the grounds that so much capital funds have already been invested. Policy-makers who remember the with-without principle will not be impressed. Past outlays are a fact, whether or not a new project is started. These are sunk costs. Appraisal studies should focus on the issue whether the benefits of additional investments exceed the costs.

The value of effects

The combination of incremental analysis and micro-macro perspectives explains the CBA approach to *valuation* of effects. For instance, what is the value of a plot of land? A firm considering constructing a new industrial plant, uses the market price in the profitability analysis (micro-orientation). The value to society, however, might differ (macro-orientation), and equals the amount of income that plot of land would generate in the next-best use (without-case). Perhaps the plot would be used for agriculture instead of industry. To use the

land for industry implies giving up income from agriculture (opportunity costs or benefits foregone). The value of the land to society would then be the net income a farmer could have earned from the production and sales of agricultural crops had the land not been used for industry. Another example: what is the value of health services? If patients do not have to pay a doctor, the micro orientation suggests a price of zero, but from a macro perspective, however, a value for instance is the avoided costs of illness.

The CBA approach to valuation also revealed in the treatment of costs and benefits at different *times*. Suppose someone has $100 available for investment. What is preferable, a return of $120 in year 1 and $0 in year 2 or a $0 return in year 1, $120 in year 2? Although both projects earn a net profit of $20, most people will choose the first option. Rather than waiting until year 2, they would want to collect the profit a year earlier because they can reinvest it in a new opportunity (with-without).

Assumptions
Project officers should devote as much attention to CBA outcomes as to the underlying assumptions. Studies by the World Bank, for instance, have shown that appraisal studies tend to be optimistic. Explanations include a lack of emphasis in the appraisal study on factors such as managerial capacities and the seemingly redundant question whether people really want projects designed by development agencies.

A CBA supporter knows that the outcome of any calculation depends on *assumptions* regarding factors determining the magnitude and timing of costs and benefits. For example, in many developing countries much aid has been spent on constructing of drinking water supply facilities. The (financial) benefits might be calculated as follows:
- 100,000 house connections;
- annual user charge 3% of average annual household income, which in the project area is Rs 10,000;
- receipts will hence total 100,000 * Rs 300 = Rs 30,000,000.

Such an estimate depends on various assumptions, and consultants should always be instructed to state them explicitly. Installing 100,000 house connections is one thing, but ensuring they will be used is another. Does the target population feel the need for the project, or do they have easy access to a cheap source (without-situation)? Do households consider 3% reasonable? How many households have a below-average income and might not be able to pay the proposed user charge? And, focusing on the implementing agency: what is the technical efficiency of water delivery, that is what are losses, and what is the performance regarding collection of user fees?

2. Differences between financial and economic CBA

Different perspectives as a starting point

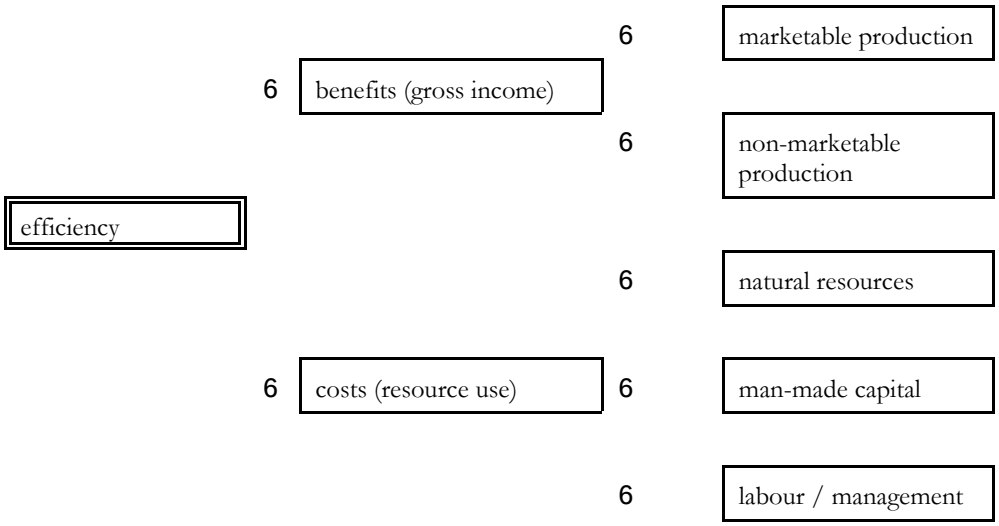
The principles underlying CBA, as outlined in section 1.1, are translated into the basic elements of the CBA technique. The different *perspective* from which a project may be evaluated shows in the distinction between *financial CBA* and *economic CBA*[34] . Financial CBA takes a private point of view, economic CBA has a national perspective. Because of the different perspectives, financial and economic CBA are dissimilar with respect to:
- the types of development objectives addressed;
- types of effects taken into account;
- the valuation of effects.

34 For social CBA, see section 1.4.

Different objectives

In project appraisal, the objective of maximization of income corresponds with the *efficiency or profitability* criterion. Both financial and economic CBA measure efficiency scores of projects, but from different perspectives. Efficiency refers to the ratio between increases in production and resources used to achieve that higher production level. Or the ratio between benefits and costs (see Figure 1).

Figure 1 Efficiency



Financial CBA measures efficiency from a *private* point of view. The key question is whether a project would have a sufficient return on investment for a firm, a bank, or perhaps an organization in charge of public utilities (sufficient is explained below). A positive outcome of financial CBA means that a project is profitable to an investor.

A project may appeal to an investor but be unattractive to a country. The efficiency score of a project from a *national* point of view is investigated in economic CBA. All benefits and costs to society, or all impacts on *real national income,* are taken into account. The production of marketable products such as maize or cars constitutes a benefit. If health care (a non-marketable service) improves, society benefits as well. Costs reflect the use of a country's scarce resources: man-made capital (machines, trucks), human capital (labour, management) and natural resources (renewable and non-renewable resources, waste disposal, life-support systems).

Different types of effects
Financial and economic CBA take different types of *effects* into account. To estimate financial profitability, a company will take all transactions *(receipts* and *outlays)* into account that affect its financial position. Economic CBA covers all *benefits* and *costs* irrespective of whether the project experiences a corresponding receipt, respectively outlay. Differences between receipts and benefits, and between outlays and costs, show in the treatment of transfers and external effects.

Transfers
Transfers should be accounted for in financial CBA, and not included in economic CBA. Transfers, such as direct taxes, subsidies and tariffs on trade, do affect private profitability. Any businessman or financial participant in a project is interested in the amount of taxes and tariffs payable and the subsidies it might enjoy. The former flows reduce profitability, the latter enhance it. But do such payments really matter for the country; is national income affected? As long as the issue of who owns money in a country is irrelevant, as assumed in economic CBA, the answer is no. When a citizen pays income tax to the government, the country gets richer nor poorer. There is a change in ownership of money, but the availability of goods and services is not affected, nor are scarce resources used. If a ministry subsidizes a firm the opposite occurs: money is exchanged between the company and the government without any changes in the real economy.

External effects
External effects do not appear in financial CBA calculations, but should be accounted for in economic CBA. External effects (or externalities) constitute adverse or beneficial impacts of a project on the welfare of society, without corresponding receipts and outlays in financial accounts of a project agency. Projects may, for instance, cause air or water pollution without having to pay for it. (If the polluter pays, ecological costs are internalized, and they should be included in financial CBA.) Costs of pollution may appear elsewhere in society. Pollution of rivers, for instance, may negatively affect agricultural productivity downstream. Cities may have to invest in water treatment plants. These are costs to the nation and should therefore be included in economic CBA. Similarly, environmental improvement is a benefit to a country, and should hence be recorded in economic CBA.

Another example of a positive external effect is immunization schemes. The direct benefit of immunization is reduced illness and mortality rates among those immunized. Furthermore, society as a whole benefits because of the reduced risks of disease transmission to other people.

Differences in valuation
The final difference between financial and economic CBA concerns the *valuation* of costs and benefits, or the nature of *prices* used in valuation. Prices play an essential role in CBA, because the method requires that all effects are recorded in monetary terms (monetized). Thus effects always have a quantity and price component. An example: assume that an agriculture project results in an extra output of 100 ton of maize (quantity) in a year and the price of maize per ton is US$ 3,000. The effect (benefit) of this project is 100 (ton) * 3,000 (US$/ton) = US$ 300,000. A cost element might be the value of irrigation works: 10 km (quantity) * 10,000 US$/km (price) = US$ 100,000.

Financial CBA, focused on private profitability, applies actual, *domestic market prices*. Whether these are free-market prices, or the result of government intervention is of no importance to private decision-makers. In economic CBA, that question is elementary. Prices in economic CBA should give a comprehensive picture of the value to society. If market prices fail to do so, if they are distorted, economic CBA prescribes that prices are replaced by *economic (or accounting or shadow) prices*. These prices are not observed in reality, but calculated on the basis of the concept of *opportunity costs*. The value of resources used is equal to the benefits foregone, that is the benefits that might have been realized in the next best opportunity (incremental analysis; see previous section).

The opportunity costs principle should be applied to all goods and services, inputs and outputs, labour and capital, imported or produced domestically. Three valuation examples are presented here: local currency, labour, and money.

The price of local currency
The official exchange rate (OER) gives the (formal) market price of one unit of foreign currency in terms of the domestic currency (US$ 1 = Rs 30). Assume a currency of a small country that is strongly overvalued relative to hard currencies such as the US dollar. Overvalued means that, generally due to government interference in the developing country, US dollars are much cheaper to buy than if only demand for and supply of currencies is determined by the rate of exchange. As a consequence, imports are cheaper than under free markets conditions.

Such a situation advantages a company importing raw materials. In a financial CBA, the subsidization of raw material imports may even turn an unprofitable undertaking into a sufficiently attractive project for private investors. An economic CBA would take a broader perspective. Whereas overvaluation provides an incentive to inefficient companies, consumers ultimately pay the bill. Financial CBA may give the wrong signals from a national point of view, because the OER fails to give the true value of a dollar to society. In economic CBA, a shadow exchange rate (SER) is used instead, derived from an estimate of the exchange rate without government interference. The exchange rate at the black market for foreign currencies may be taken as a starting point.

The price of labour
The market wage rate is the relevant price in financial CBA. Whether this wage is determined at a free, competitive labour market, or strongly influenced by trade unions or minimum wage regulations does not matter in financial CBA. In economic CBA, the question is raised whether the market wage rate reflects the true value of labour to society. In many countries it does not, and economic CBA should use a shadow wage rate (SWR) instead.

To find the SWIZ, the alternative (without-case) allocation of labour is investigated. For instance, the economic costs of employing a person on a project who would otherwise be involuntarily unemployed are zero. Compared to the without-situation, there is no loss of production due to participation in the project. The SWR in such an extreme case would be zero. In reality, the SWIZ for unskilled labour is generally between 50% and 100% of the market wage rate.

The price of money
Interest rates, that is the payment for the use of money, differ in financial and economic CBA. In the financial CBA, the (borrowing or lending) market interest rate relevant to a firm is applied. Capital markets, however, are often distorted in developing countries because of considerable government intervention. Therefore an accounting rate of interest (ARI) is applied in economic CBA. This rate may be derived from international capital markets, which are the alternative to domestic borrowing (without-case). Interest rates are particularly important because future costs and benefits are discounted in CBA (see next section).

3. Summary of main differences

The main differences between financial and economic CBA are in Table 2.

T 2: Comparison of financial and economic CBA

	Financial CBA	Economic CBA
Point of view	private, project	society, country
Objective	maximize private income/profitability	maximize real national income/profitability

Effects		
Transfers	recorded	not taken into account
External effects	not taken into account	recorded
Valuation		
General	domestic market prices	accounting or shadow prices
Foreign currency	official exchange rate	shadow exchange rate/official exchange rate
Labour	market wage rate	shadow wage rate
Rate of discount	market interest rate	accounting rate of interest

4. Similarities between financial and economic CBA

Whereas the previous section focused on *differences* between the various types of CBA, the present section summarizes some important *similarities*. They refer to incremental analysis, discounting, decision criteria, and sensitivity analysis.

With-without incremental analysis
Both financial and economic CBA are conducted on the basis of incremental analysis, focusing on differences between the situations with and without the project. That is, only *project-specific* effects are considered. It is of great importance that development agencies instruct consultants to specify their assumptions regarding what would happen if the project is not implemented.

Time and discounting
Financial and economic CBA show a similar treatment of the temporal pattern of costs and benefits. The length of the period for which effects are estimated (the time horizon) depends on the nature of the project. All effects, whether short term or long term, should be included. In some cases the *technical life time is* decisive, in other cases the *economic life time*. The technical life time of a dam may be 100 years, whereas economic life time for an industrial project in a dynamic market with rapidly changing consumer preferences may be 10 years.

Whatever the time horizon, some effects occur immediately (investments, for instance), while others (such as benefits at full capacity utilization) may show after several years. To compare effects now and in the future, discounting is usually applied, that is: future costs and benefits are discounted to the present. Both in financial and economic CBA, an outlay of one dollar fifteen years after the start of a project is assigned a lower value than the payment of a similar amount now. The rationale behind discounting is the notion of opportunity costs: a dollar can be reinvested now and be worth much more after fifteen years as a result of accumulated interest or profits (the without-case). Arithmetical discounting calculations are similar for financial and economic CBA, but the discount rate differs (market interest rate versus ARI).

Decision criteria
By means of discounting an overall measure of profitability can be calculated. The most well-known *decision criteria* are net present value (NPV), internal rate of return (IRR) and benefit-cost ratio (BCR). Thus both a financial and an economic NPV can be estimated for a project. Similarly, a financial IRR and an economic IRR may be determined, as well as a financial BCR and an economic BCR. The three decision criteria, IRR, NPV and BCR, are similar, and if applied correctly, produce the same recommendations on approval or rejection of a project. The decision rules are summarized in table 3.

T CBA decision rules

Criterion	Decision	
	Accept	Reject
NPV	NPV > 0	NPV<O
BCR	BCR>l	BCR<l
IRR	IRR> discount rate	IRR< discount rate

As the calculation methods are similar, differences between financial and economic indicators should be explained by the figures used in the calculations:

- the occurrence of transfers (not included in economic CBA) and external effects (not included in financial CBA);
- the valuation of goods and services through market prices in financial CBA and accounting prices in economic CBA;
- the use of the market rate of interest in financial CBA and the ARI in economic CBA.

Financial and economic CBA may result in the same recommendation to reject or accept a project. Problems may arise if the outcomes are contradictory, for instance economic NPV > 0 and financial NPV < 0, and vice versa.

Uncertainty, assumptions and sensitivity analysis

Too much reliance is sometimes placed on CBA results: "the NPV is positive, *hence* the project is fine". The outcomes of CBA in terms of NPV or related indicators, however, are meaningless if the underlying *assumptions* are not soundly based. Discussions on financial and economic CBA studies should therefore primarily focus on these assumptions:

- Why has a world market price of US$ 10,000 been used for a machine?
- Is it reasonable to assume that a vaccine plant reaches full capacity after three years?
- On what basis are operation and maintenance costs of a drinking water project set at Rp 1 million a year?
- Why has a 14% discount rate been applied to a project in Mali?

Assumptions regarding the physical size of costs and benefits, as well as prices and timing should be reviewed systematically. Given the uncertainty associated with practically all costs and benefits in most projects, presenting outcomes as, for example, IRR=24.35% generally suggests a much more robust appraisal than reality justifies.

Many CBA studies include a *sensitivity analysis. Two* approaches may be applied. The first option is to determine NPVs for different assumptions regarding-Costs and benefits (including prices and timing):

- if the world market price of the machine is US$ 15,000 instead of US$ 10,000, then NPV declines from 235 to 56;
- if the vaccine plant reaches full capacity after five years instead of three years, then the NPV would be -50 instead of + 80;
- if operation and maintenance costs are 20% higher, then the NPV is +5 instead of + 20;
- if the discount rate in Mali is set at 7% instead of 14%, then the project is feasible instead of unfeasible.

Alternatively, *switching values* can be determined. These are the specific values of parameters such as costs, benefits and timing which cause the project to switch from feasible to non-feasible. For instance, if may be found that - starting from initial assumptions -a 10% increase in investment costs would be needed to decrease the NPV from 234 to 0. At the benefit side, a drop of 40% in the price of the final product would have the same result. Switching values provide information on the cost and benefit items for which the overall result is most sensitive.

Sensitivity analysis should run parallel to analysis of controllability. High risk factors identified during controllability analysis should be subjected to sensitivity tests in CBA. The outcomes of sensitivity analysis should be interpreted carefully. Consider the following statement: "Even at extreme sensitivity tests - a reduction of 10% in benefits and a 10% cost increase - the NPV remains positive". This conclusion, however, looses much of its relevance if the original assumptions regarding costs and benefits are highly debatable. If better estimates of costs learn that they are likely to be twice as high as in the original estimate, a 10% increase in the context of sensitivity analysis should not convince decision-makers. While in practice sensitivity analysis is often applied in a mechanical way, its scope should follow from the justifications of and uncertainty associated with assumptions. Whereas CBA or economists should not be blamed for uncertainty regarding the future, no project officer should be satisfied with isolated, standard sensitivity tests.

5. Social cost-benefit analysis

Financial and economic CBA do not address equity issues. Although economic CBA covers all benefits and costs to society, it is indifferent as to who benefits from a project and who faces the costs. It does not say anything about the "fairness" of distribution of consequences. A dollar accruing to a rich farmer or to a poor peasant have an equal weight. Similarly, economic CBA does not distinguish between income that is consumed immediately and that is saved which leads to investments and economic growth.

To a limited extent only, social CBA may be used to evaluate the "fairness" of distributive impacts of a project. Because social CBA focuses on the distribution of income only, it cannot account for changes in ownership of assets or in socio-political balance of power. Social CBA involves the adjustment of outcomes of economic CBA for income distribution objectives. Policy-makers should make their value judgements explicit (see box 1). Social CBA outcomes hence give a simultaneous picture of efficiency and the desirability of the pattern of the distribution of income generated by a project. Despite this intriguing feature, social CBA is rarely applied by development agencies because the method is complex and requires a high data input.

B : Weights in social CBA

In social CBA, policy-makers may assign a high weight to income accruing to low-income groups or women: "in my view, a dollar accruing to a poor farmer is worth four times as much as a dollar in the hands of a rich farmer". Or they may indicate a preference for savings: I consider the value of a dollar saved twice as high as that of a dollar consumed".

If controversial, subjective social CBA is not applied, distributive consequences should be assessed in a neutral, descriptive way by investigating two questions. Firstly, what will be the share of target groups in the overall project benefits? For example, would the poor have access to a new training centre, or is exclusive participation of higher income groups more likely? Secondly, to what extent will the project costs be borne by target groups? For example, would a new scheme to limit fish catch in a lake hurt the poor?

6. Limitations of CBA

CBA is a useful tool in project appraisal, but like all techniques it is not without limitations. This tool has limitations if not all effects are known in monetary terms, and if policy-makers emphasize non-efficiency criteria.

Effects
Sometimes a monetary value cannot be attached to all costs and benefits in CBA. For example, in theory all environmental damage should be incorporated in economic CBA, but in practice data may be lacking. Whether this problem arises in an appraisal study depends on various factors:

- the types of effects (it is easier to value a car than erosion);
- the timing of effects (forecast of the oil price next year will be more reliable than those for the year 2010);
- the size of a project (multi-sector and integrated projects tend to involve more data problems than a simple, small-scale activity);
- the quality of local statistical bases (collection of economic data is more time-consuming in some countries than in others);
- time and means available for an appraisal study (compare a back-of-the-envelope calculation in the identification phase and a one-year study in the formulation phase).

Criteria
Thee use of CBA as an efficiency-oriented tool is limited if a high weight is assigned to other types of criteria, such as self-reliance, gender, institutional development and human rights. Hence, the lower the relative priority of efficiency, the more modest the role of CBA.

Data problems impede a comprehensive measurement of efficiency. If only minor effects cannot be monetized, it may be useful to apply CBA partially. Obviously, CBA calculations become rather useless if the greatest part of efficiency-related effects cannot be expressed in terms of money. This empirical problem may be partly solved by, for instance, by devoting more time and means to data collection, or by choosing a less data-sensitive technique such as CEA or MCA.

CBA is not a tool to treat criterion other than efficiency (and to a limited extent equity). Hence, although available data may allow a full-fledged CBA, the result will not carry much weight in decision-making if major criteria are the socio-political position of women and improvement of human rights. If these problems occur, the use of MCA in addition, to or instead of CBA, is advocated.

7. Cost Effectiveness Analysis (CEA)

Cost-effectiveness analysis (CEA) has all the features of CBA but one. CEA-does not require monetization of all costs and benefits. Usually CEA is applied if valuation of *benefits* is problematic, as in social sectors, such as health, education, sanitation, and drinking water supply. In addition, CEA is often applied to projects in environmental protection, infrastructure and institutional development. Such projects produce goods or services for which there is no market and hence no price, or are traded in markets regulated by the government. Although application of CBA is theoretically possible, and for large projects even recommended, the less data demanding CEA is more practical if time and funds for appraisal are limited.

Some examples of the problems of benefit valuation:

- What is the value of reduced sedimentation in downstream reservoirs caused by erosion control?
- What are the benefits of a greater availability of clean drinking water?
- What is the value of improved health as a result of an immunization campaign?

In such cases, assessing *costs* of alternatives does not pose specific problems. Alternatives may be, respectively:

- reforestation or soil improvement;
- individual connections or public taps;
- small regional health clinics or central hospitals.

If costs are known in dollars, and benefits in physical terms, CEA comprises the calculation of (discounted) benefits per (discounted) dollar for each project alternative' '. Physical benefits may be for example, cubic metres of drinking water, percentage reduction in sedimentation levels, numbers of patients. CEA may show, for instance, that the costs per immunized child would be $3 for the regional health clinics alternative, and $5 for the central hospitals alternative.

Like CBA, CEA can be applied in financial and economic terms. But in contrast to CBA, CEA does not tell whether benefits outweigh costs, and hence which alternative is most desirable from an efficiency point of view. Despite relative high unit costs, decision-makers may still favour a central hospital alternative to a small regional health clinic alternative. Hence: CEA is only applicable if several project alternatives are available. Furthermore, CEA only provides a ranking of alternatives, rather than a recommendation whether or not to approve a project.

8. Multi-criteria analysis - a simple example

The following example is given to illustrate the principles underlying MCA. Although this is the simplest form of this technique, the main features also apply in more complex applications. The example refers to a choice-problem with three alternatives - A, B, and C -and three criteria: employment, costs and project period. The objectives are to achieve maximum employment in the shortest time period at the least costs. The impact matrix is shown in table 4.

T : Example 1: MCA

Criterion	A	B	C
Employment (number)	8000	5000	6000
Costs (mln dollar)	1.5	0.8	1.0
Time (months)	14	8	11

None of the alternatives shows the best performance in all respects. A achieves the greatest employment benefit, but reaches this result slowly and at high costs. The ranking of the three alternatives hence depends on the relative priorities of the three criteria. For example, A becomes more attractive, the higher the priority for Employment in relation to Time and Costs. Suppose that policy makers are willing and able to assign *weights* to the three criteria. The right column in table 5 shows the results if they are asked to divide a weight sum of 1 among the criteria.

7 CEA may also be applied if benefits can be monetized, but costs cannot. CEA then shows the alternative 8 which gives the highest monetary benefits per unit of costs.

The quality of the benefits should be equal for all alternatives.
The availability of weights is a necessary but insufficient condition to solve the choice problem. The scores of the alternatives on the criteria are in very different dimensions, that is jobs, dollars and months. Scores should therefore be *standardized,* that is converted to a similar scale. One option is to divide each criterion score by the maximum score for that criterion. This is also shown in table 5. Standardized criterion scores for alternative A are all 1 (positive or negative) because it shows the highest scores for all criteria.

T : Example 2: MCA

Criterion (score relative to maximum)	A	B	C	Weight
Employment	1	0.63	0.75	0.5
Costs	-1	-0.53	-0.67	0.4
Time	-1	-0.57	-0.79	0.1
Score	0	0.05	0.03	

The last row in Table 1.5 shows the results of the final step. For each alternative, a *total score* has been calculated by multiplying each criterion score and weight, and summing the three products. For A:
0.5*1 + 0.4*(-l) + 0.1 (-1) = 0

Alternative B has the highest score, followed by C and A, respectively.

The dependency of the MCA outcome on the choice of weights is shown in table 6. If policy-makers weigh the criteria as shown there, alternative A becomes the most attractive, followed by C and B, respectively.

T : Example 3: MCA

Criterion	A	B	C	Weight
Employment	1	0.63	0.75	0.7
Costs	-1	-0.53	-0.67	0.1
Time	-1	-0.57	-0.79	0.2
Score	0.4	0.27	0.3	

9. Comparison between MCA and CBA

MCA may assist decision-makers if not all efficiency-related effects can be monetized, and if efficiency is not or is only one of the appraisal criteria. Unlike CBA, MCA can incorporate non-monetary information about effects and account for all types of criteria, as shown in the example above.

Rather than being a specific appraisal method, MCA is an umbrella for a collection of close to 100 techniques that share some basic principles but differ with respect to other features. This discussion is confined to the general characteristics of main groups of MCA methods[35]].

MCA does not place theoretical limitations on the nature of *criteria.* All criteria considered to be policy-relevant may be processed, including efficiency. This is the practical advantage of MCA over CBA when several policy goals apply that are beyond the scope of CBA. The flexibility of MCA, however, also implies that more attention should be paid to the methodological soundness of the criteria selection. There is a danger of making arbitrary choices leading to large numbers of criteria, double counting and other problems.

35 For more elaborate treatment and explanation of individual MCA-techniques, see Ministry of Finance, 1988. A study focused on the applicability and relevance of MCA for DGIS is Van Pelt, 1991.

Requirements for the *measurement of effects* differ between three groups- of MCA methods.

C *Quantitative* MCA methods incorporate only quantitative (hard) data:
  - monetary (guilders, rupiahs);
  - physical (kwh, litres of water, etc);

C *Qualitative* MCA methods can process only qualitative (soft) information:
  - *Ordinal:* a ranking of alternatives according to the magnitude of scores. Possible formats of ordinal ranking are: 1, 2, 3, etc or + + +, +, ..., 0
  - *Nominal:* characteristics of alternatives are indicated. The criterion colour would have the following scores: red, blue, white, etc. On such a scale ranking is impossible.
  - *Binary:* this is a special case of nominal scales, in which an alternative either has or does not have a certain characteristic. Possible formats of scores are: 0, 1 or yes, no.

C *Mixed data* MCA methods address quantitative and qualitative effects simultaneously.

The applicability of CBA and MCA in terms of criteria and effects is illustrated in table 7 which presents criteria scores for three alternatives for the construction of dams. Economic CBA addresses the criteria of agricultural production and electricity generation (both contributing to national income), as well as costs and environmental damage (both resource use). Equity and acceptability to local communities are beyond the scope of economic CBA. MCA, however, allows treatment of all criteria. Moreover, as only costs are known in *monetary terms,* even a four-criteria impact matrix would not allow application of CBA. MCA can be applied, through mixed data MCA methods.

If only the treatment of criteria and effects matters, then MCA would obviously be more attractive than CBA. But there are several problems. For one, the methodological basis of MCA is not as strong as that of CBA. If several MCA methods are applied to one case, the outcomes are not necessarily commensurate. One method may recommend selection of project A, and the other method, project B.) Moreover, CBA outcomes (IRR, NPV) may not only be used to rank available alternatives, but also directly indicate whether or not projects are desirable. The rate of discount acts as a general rationing device. MCA lacks such a mechanism, and consequently results in a ranking of alternatives. This is a limitation especially if only one project proposal is considered which should either be approved or rejected.

T : Impact matrix dam project

Impact matrix

Criteria (scale)	Alternatives		
	One large dam	Two intermediate dams	Several small dams
Agricultural production (tons)	100,000	80,0w	60,000
Electricity (mn kwb)	500	250	100
Costs (PV mIn US$) *	2	1	0.5
Environmental damage (ordinal)	3 (most)	2	1 (least)
Equity (ordinal)	3 (worst)	2	1 (best)
Acceptability to local communities (binary)	no	yes	yes

* PV = present value. Through discounting time is only incorporated in the "costs" criterion.

Another problem, which explains why policy-makers often hesitate to embark on MCA studies, is that a weighting mechanism is required. Instead of market or accounting prices as in CBA, MCA relies on explicit weights that represent the relative preferences of criteria according to policy-makers. What weight can be applied to agricultural benefits and ecological costs. Either quantitative weights may be applied-, or less controversial qualitative weights: environmental costs are more important than agricultural benefits.

This discussion shows the existence of a trade-off between CBA's stronger methodological basis and MCA's greater practical flexibility. As a general rule, apply CBA if:
C efficiency is the only appraisal criterion;
C all effects can be estimated in monetary terms.

The more reality deviates from this situation, the stronger the case for MCA which is recommended if:
C many appraisal criteria apply;
C CBA is not applicable because of lack of monetary data on efficiency attributes.

A combination of CBA and MCA is recommended if: - efficiency is among the range of criteria;
C all efficiency attributes are known in monetary terms.

In that case, the CBA outcome (for example, an IRR) is used as an input (the score on the efficiency criterion) into MCA.