UNITED NATIONS

SC

UNEP/POPS/COP.3/INF/8

Distr.: General
8 March 2007

Original: English

United Nations Environment Programme

Conference of the Parties of the Stockholm Convention on Persistent Organic Pollutants
Third meeting
Dakar, 30 April–4 May 2007
Item 5 (d) of the provisional agenda*

Matters for consideration or action by the Conference of the Parties: implementation plans

Draft guidance on socio-economic assessment for national implementation plan development and implementation under the Stockholm Convention **

Note by the Secretariat

1. By paragraph 5 of its decision SC-1/12, the Conference of the Parties requested the Secretariat, in collaboration with other relevant organizations and subject to resource availability, to develop additional guidance on social and economic assessment for assisting countries in the preparation of national implementation plans and in doing so to take into consideration the particular circumstances of developing countries and countries with economies in transition.

2. In its decision SC-2/7, the Conference of the Parties noted the progress made by the Secretariat in developing the additional guidance and requested it to complete a draft version of the additional guidance for consideration by the Conference of the Parties at its third meeting, provided that resources were made available for that work.

3. In response to that request, the Secretariat developed the draft guidance on socio-economic assessment for national implementation plan development and implementation under the Stockholm Covention. The draft guidance was produced in collaboration with the United Nations Environment Programme (UNEP) Division of Global Environment Facility Coordination as part of the Global Environment Facility funded project entitled "Development of National Implementation Plans for the

* UNEP/POPS/COP.3/1.

** Stockholm Convention, Article 7; reports on the work of the Conference of the Parties at its first meeting (UNEP/POPS/COP.1/31), annex I, decision SC-1/12 and at its second meeting (UNEP/POPS/COP.2/30), annex I, decision SC-2/7.

K07927 160307

Management of Persistent Organic Pollutants". The draft guidance is set out in the annex to the present note.

Annex

Draft guidance on social and economic assessment for the development and implementation of persistent organic pollutant national implementation plans

GEF

UNEP/GEF: 12 COUNTRIES PILOT PROJECT
FOR THE DEVELOPMENT OF
NATIONAL IMPLEMENTATION PLANS (NIPs)
FOR THE MANAGEMENT OF
PERSISTENT ORGANIC POLLUTANTS (POPs)

UNEP

Guidance on Socio-Economic Assessment for National Implementation Plan Development and Implementation under the Stockholm Convention

Draft
March 2007

CONTENTS

INTRODUCTION

1 INTRODUCTION

1.1 The Purpose of this Guide

The purpose of this guide is to assist Parties to conduct a socio-economic assessment when developing or implementing their implementation plan under the Stockholm Convention.

The guide has three main objectives:

1. To give **guidance** on Socio-Economic Assessment and provide a compelling rationale for its adoption in the development and execution of national implementation plans for the Stockholm Convention on persistent organic pollutants;
2. To **familiarize** the teams responsible for developing and executing national implementation plans with the process and methods of conducting Socio-Economic Assessment such that they are able to oversee the work of specialists;
3. To provide a practical toolkit setting out how collection of relevant socio-economic data and their analysis can be set alongside analysis of technical and other issues in order to inform **decision-making** within the planning and executing of a national implementation plan.

With respect to the first objective the guide sets out the conceptual framework of the importance of social indicators in successfully preparing and implementing a national implementation plan and explains the remit and boundaries of a socio-economic analysis.

In order to carry out a Socio-Economic Assessment the various methods and tools are explained, with reference to the kinds of data that provide insight, both for baseline and impact evaluation analyses.

With respect to the third objective, the guide systematically positions the Socio-Economic Assessment within the process of decision-making at any stage of the development of the national implementation plan and within the planning cycles to take action on persistent organic pollutants.

1.2 Mandate

The Conference of the Parties, in its decision SC-1/12 requested the Secretariat of the Stockholm Convention, in collaboration with other relevant organizations and subject to resource availability, to develop among others, additional guidance on social and economic assessment, and in doing so to take into consideration the particular circumstances of developing countries and countries with economies in transition.

In response to the above request, the Secretariat developed the present guide for socio-economic assessment for national implementation plan development and implementation under the Stockholm Convention in cooperation with the United Nations Environment Programme (UNEP) Division of Global Environment Facility Coordination (DGEF), as part of the Global Environment Facility-funded project entitled "12 Country Pilot Project to Develop National Implementation Plans for the Management of Persistent Organic Pollutants".

1.3 Intended Readership and Scope

This guide is intended specifically for the country teams mandated to formulate and execute national implementation plans under Article 7 of the Stockholm Convention. Many Parties operate in a context where there are already priorities or plans to ameliorate the chemical and environmental impacts of persistent organic pollutants. **This guide is *as relevant* for these Parties** as it is for the minority of Parties where a national implementation plan has not yet been developed. It is not expected that teams should themselves become experts in Socio-Economic Assessment. Instead this guide is to enable them to supervise the work of a multi-discliplinary team engaged to carry out the Socio-Economic Assessment and to enable that work to feed in effectively to any decision-making process.

1.4 How to use this guide

The socio-economic guidance broadly follows the stages and steps set out in OECD Framework for integrating Socio-Economic Assessment in Chemical Risk Management Decision Making[1]. It is intended to guide country teams engaged in executing their national implementation plans and is written to be of practical rather than academic value.

To meet its three principal objectives, the Guide is set out in three parts:

1. Part A – defines Socio-Economic Assessment and its value in the context of reducing the impact on humans of persistent organic pollutants and their environmental management.
2. Part B – shows how Socio-Economic Assessment fits with national implementation plans and how to supervise Socio-Economic Assessment.
3. Part C – describes the main tools used in Socio-Economic Assessment.

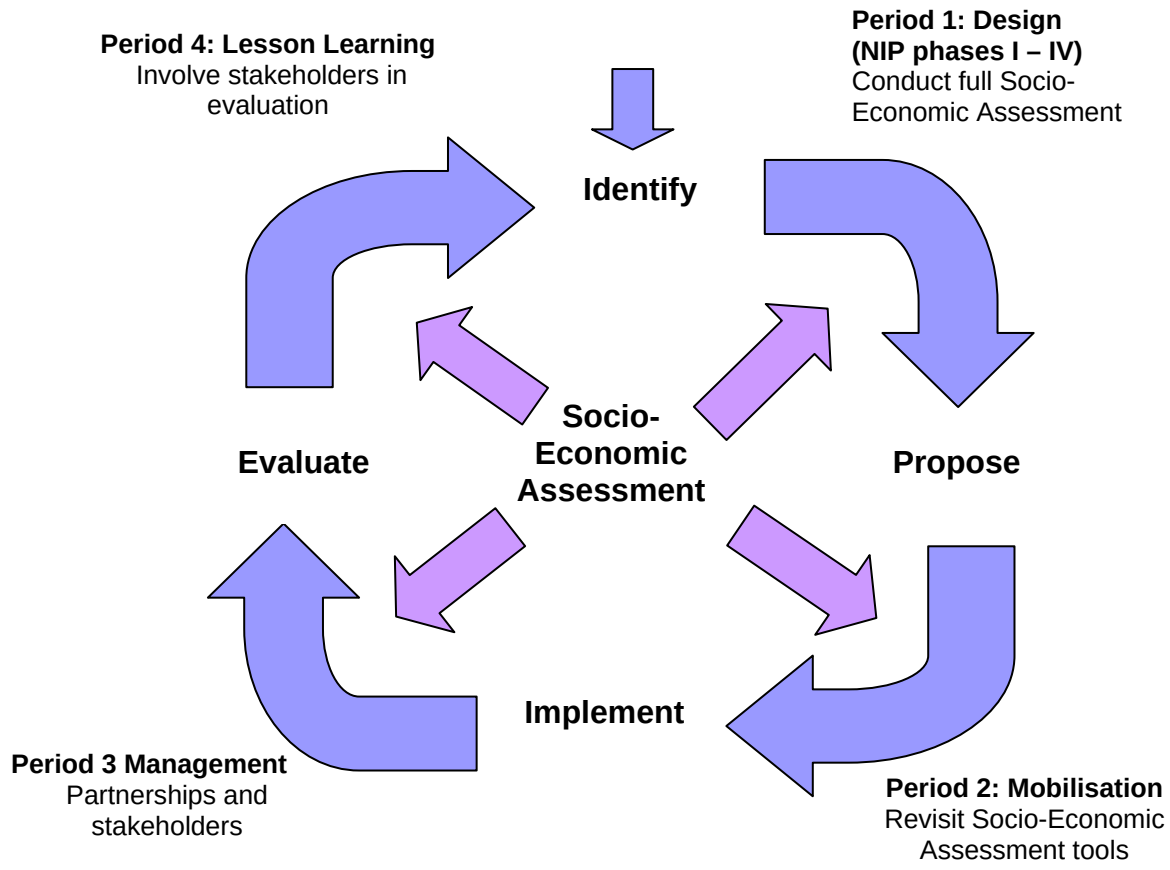
National implementation plans do not in themselves readily translate into practical action, and activities to reduce the social impacts of persistent organic pollutants are probably best

[1] Taken from OECD Environmental Health and Safety Publications (2000) FRAMEWORK FOR INTEGRATING SOCIO-ECONOMIC ANALYSIS IN CHEMICAL RISK MANAGEMENT DECISION MAKING. Series on Risk Management No. 13

considered collectively as an Impact-Reduction Project for Managing persistent organic pollutants in the environment.

The figure below sets out the process of a Programme Cycle for Managing persistent organic pollutants. This clearly shows that the Socio-Economic Assessment is an integral part of the Programme Cycle. It shows the interrelationship between Socio-Economic Assessment and the four individual periods in the Programme Cycle: design, project molbilisation, project management and lesson learning.

Figure 1 shows how Socio-Economic Assessment is central to the Programme Cycle for Managing persistent organic pollutants



Each period is broken down into stages as illustrated below:

Period 1 Design: A complete Socio-Economic Assessment takes place in Period 1 of the Programme Cycle. There are 4 stages in the Socio-Economic Analysis: (1) Identification of problem and Situation Analysis; (2) Undertaking the Socio-Economic Assessment; (3) Options Analysis and (4) Action planning. These will take place during the development of the national implementation plan, specifically in Phases I-IV (see Annex A for diagram of national implementation plan process).

Period 2 Mobilisation: The proposal, Allocation of resources, Assembling management team, Revisit of the Socio-Economic Assessment, Adjustment to the logical framework Development of Terms of Reference (ToR). Identify partners and possible funders through the stakeholder analysis and linkages with other government policies. If Socio-Economic Assessment has not been undertaken as part of the national implementation plan planning process it can be undertaken at the start of implementation

Period 3 Management: Implementation actions, use of Socio-Economic Assessment tools to ensure positive outcomes for most vulnerable stakeholder groups. Revisit stakeholder analysis to ensure implementation involves relevant stakeholder groups at appropriate times.

Period 4 Lesson Learning: Evaluation. The lesson learning period that will shape fresh initiatives in a modified national implementation plan. The different stakeholder groups identified in the Socio-Economic Assessment will need to be consulted to assess impact of persistent organic pollutants management action.

SECTION A:
THE WHAT, WHY AND PRINCIPLES OF SOCIO ECONOMIC ASSESSMENT

SECTION A: THE WHAT, WHY AND PRINCIPLES OF SOCIO-ECONOMIC ASSESSMENT

A.1 What is Socio-Economic Assessment?

Socio-Economic Assessment (SEA) is a systematic appraisal of the potential social impacts of economic or other activities such as the management of persistent organic pollutants on all sectors of society (including local communities and groups, civil society, private sector and government). It is a means of analyzing and managing the intended and unintended social impacts, both positive and negative, of planned interventions (policies, programs, plans and projects) and any social change processes invoked by those interventions.

Social impacts are the changes to individuals and communities that come about due to actions that alter the day-to-day way in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society.

In the context of managing persistent organic pollutants, social and economic impacts might include:

- vulnerability arising from exposure to persistent organic pollutants
- deterioration or improvement in health,
- loss or improvement in livelihoods,
- changes in cost of living
- changes in employment , income and workplace protection
- levels of child labour
- changes in levels of equity of wealth distribution
- opportunities for enterprise development (including Small and Medium Enterprises)
- changes in demand for public services, such as health and education and infrastructure.

The Figure below illustrates the potential impact on people of persistent organic pollutants.

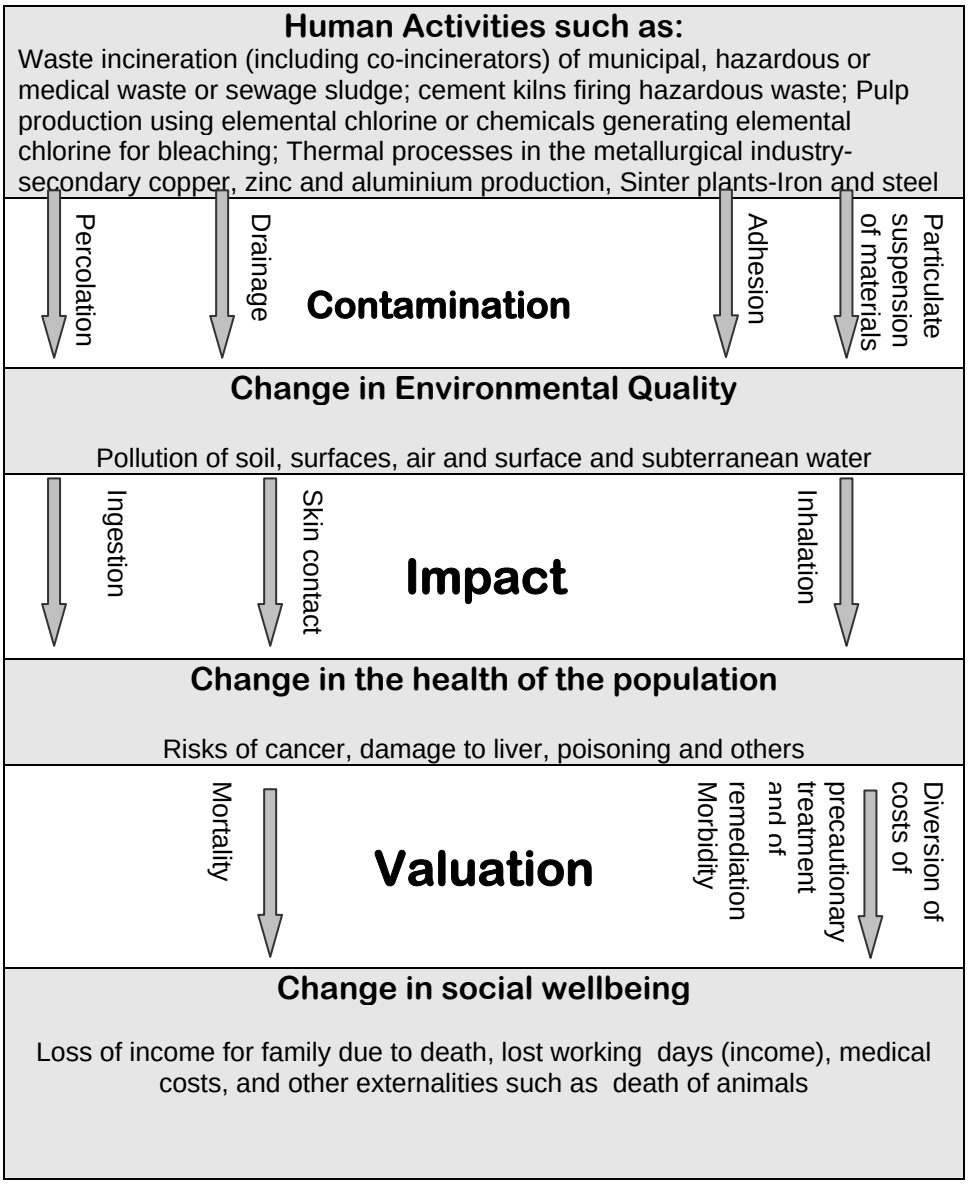


Figure 2: The potential impact on people of persistent organic pollutants.

Having assessed the potential impacts, Socio-Economic Assessment assists in deciding on and choosing actions that are appropriate and correctly focused as well as monitoring their effectiveness. Socio-Economic Assessment provides a basis for minimising the negative impact on populations and also in improving equitable outcomes for the most vulnerable groups.

A.2 Why should national implementation plans include Socio-Economic Assessment?

There are three compelling reasons:

i) To ensure a positive impact on people as well as the environment

ii) Obligations under the Stockholm Convention

iii) Contribution to Parties' Commitments to Other Socially-Focused International Agreements

i) To ensure a positive impact on people as well as the environment

Much of the data informing decision-making in national implementation plans have been related to technical and scientific information about chemicals and the environment. Socio-Economic Assessment ensures that people are brought into the equation and that the management of persistent organic pollutants takes into account the impact of proposed management strategies on the well-being of all sectors of a community, especially the most vulnerable. The data generated by Socio-Economic Assessment will inform the national implementation plan and implementation teams, enabling them to analyse, monitor and manage the social consequences of action on persistent organic pollutants.

ii) Obligations under the Stockholm Convention

References to socio economic assessment can be found through out the text of the Stockholm Convention. Table 1 below lists such references indicating the importance of a socio economic assessment when implementing the obligations under the Convention.

Annex F of the Stockholm Convention on information on socio-economic considerations, provides an indicative list of items to be taken into consideration by Parties when undertaking an evaluation regarding possible control measures for chemicals being considered for inclusion under the Convention.

The preamble to Annex F states that: "An evaluation should be undertaken regarding possible control measures for chemicals under consideration for inclusion in [the Stockholm Convention], encompassing the full range of options, including management and elimination. For this purpose, relevant information should be provided relating to socio-economic considerations associated with possible control measures to enable a decision to be taken by the Conference of the Parties".

Table 1: References to the Stockholm Convention where Socio-Economic Assessment can significantly improve chances of successful Compliance

Reference in the Stockholm Convention		Importance of Socio-Economic Assessment
Preamble Para. 2	"Aware of the health concerns, especially in developing countries, resulting from local exposure to persistent organic pollutants, in particular impacts upon women and, through them, upon future generations".	It is not possible to draw conclusions from health statistics about the causes of health concerns related to persistent organic pollutants. Socio-Economic Assessment therefore needs to be undertaken in order to gain a more accurate picture of the scale and modality of the health impacts arising from exposure of populations to persistent organic pollutants.
Para. 7	"Recalling also the pertinent provisions of the Rio Declaration on Environment and Development and Agenda 21".	Agenda 21 emphasises the importance of involving stakeholders in environmental decision-making as seen in" UNCED, 1992, Agenda 21, Preamble Section 23.2. "The need for new forms of participation has emerged. This includes the need of individuals, groups and organizations...to know about and participate in decisions, particularly those which potentially affect the communities in which they live and work." In this Socio-Economic Assessment guidance, stakeholder analysis is the key tool and central to the process of consensual and workable decision making with regard to the conflicts that arise in the management of persistent organic pollutants.
Para. 17	"**Reaffirming Principle** 16 of the Rio Declaration ….which states that national authorities should endeavour to promote the internalization of environmental costs and the uses of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment;"	This guidance offers Cost-Benefit Analysis which addresses the principle of 'the polluter pays'.
Preamble Para. 18	"Determined to protect human health and the environment from the harmful impacts of persistent organic pollutants".	The WHO regional office for Europe defines environmental health as comprising.." those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generations" (2nd European Conference on Environment and Health, Helsinki, 1994.) The definition of human health and the environment is broad and includes the well-being of people. In protecting human health
Article 1	**Objective** "….to protect human health and the environment from persistent organic pollutants".	

Reference in the Stockholm Convention		Importance of Socio-Economic Assessment
Article 3 Para.2.b (iii) a.	**Measures to reduce or eliminate releases from intentional production and use.** "Protect human health and the environment by taking the necessary measures to minimize or prevent releases"	and environment from the impacts of persistent organic pollutants, well-being must be protected or enhanced by management or replacement activities. Socio-Economic Assessment of the impacts of persistent organic pollutants and their management need to be undertaken to ensure that human health is not compromised.
Article 7 Para. 2	**Implementation Plans.** "The Parties shall, where appropriate, cooperate directly or through global, regional and sub regional organizations, and consult their national stakeholders, including women's groups and groups involved in the health of children, in order to facilitate the development, implementation and updating of their implementation plans"	The specific inclusion of women's' groups and groups involved in the health of children signifies the importance placed on ensuring that national implementation plans reflect the health priorities and needs of these groups. Socio-Economic Assessment tools and skills are needed to facilitate this. Use of the same tools ensures that *all* relevant interest groups are consulted and involved in the development and implementation of national implementation plans. Thus the two mentioned interest groups become a symbol of all relevant interested stakeholder groups.
Article 9. Para. 1.(b)	**Information exchange.** "Each party shall facilitate or undertake the exchange of information relevant to… Alternatives to persistent organic pollutants, including information relating to their risks as well as to their economic costs"	Socio-Economic Assessment tools help in the facilitation of information exchange. Further, information exchange entails information moving in many directions – particularly to decision-makers from interested/affected Parties as well as from decision-makers to other stakeholders.
Article 10 Para. 1(b) Para. 1(c) Para. 2 Para. 4 Para.1(d)	**Public information, awareness and education.** "Provision to the public of all available information on persistent organic pollutants…" "Development and implementation, especially for women, children and the least educated, of educational and public awareness programmes on persistent organic pollutants, as well as on their health and the environmental effects and on their alternatives" "Each party shall….ensure the public has access to the public information referred to in Para. 1 and that the information is kept up to date" "In providing information on persistent organic pollutants and their alternatives, Parties may use safety data sheets, reports, mass media and other means of communication, and may establish information centres at national and regional levels" "Public participation in addressing persistent organic pollutants and their health and environmental effects and in developing adequate responses, including opportunities for providing input at the national level regarding implementation of this Convention"	"Individuals, groups and organisations should have access to information relevant to environment and development held by national authorities, including information on products and activities that have or are likely to have a significant impact on the environment, and information on environmental protection measures" UNCED, 1992, Agenda 21, Preamble Section 23.2. Socio-Economic Assessment, particularly stakeholder involvement tools, can help to tailor information so that it is relevant to and understood by those for whom it is intended. Other Socio-Economic Assessment tools can help involve those stakeholders in the creation of educational materials which are suitable for them. The nature of the information is likely to be broader than purely scientific and technical if Socio-Economic Assessment is undertaken. Like technical information, it will need constant updating. Socio-Economic Assessment information is less likely to appear as statistics than technical or scientifically researched information. Organizing public participation so that it is effectively able to contribute to developing adequate responses requires a set of skills that are specific outcomes of Socio-Economic Assessment. In particular consulting with communities regarding the impacts, alternatives, social risks and growing

Reference in the Stockholm Convention		Importance of Socio-Economic Assessment
		stakeholder involvement associated with persistent organic pollutants can enhance opportunities for providing relevant input at national level.
Para. 1(e)	"Training of workers, scientists, educators and technical and managerial personnel"	The Convention here recognises the need for a multidisciplinary response to the technical issues of pollution by persistent organic pollutants in the devising of alternative management options. Socio-Economic Assessment is multidisciplinary by nature and Socio-Economic Assessment specialists can provide useful inputs in training programmes.
Article 11 Para 1(e)	**Research, Development and Monitoring.** "The Parties shall…encourage and/or undertake appropriate research, development, monitoring and cooperation pertaining to persistent organic pollutants, and, where relevant, to their alternatives including … socio-economic and cultural impacts"	This article specifically mentions socio-economic and cultural impacts, where this Socio-Economic Assessment guidance is the proposed set of tools and methodologies to accomplish effective research, development and monitoring of those impacts.
Para. 2 (a)	"In undertaking action….Support and further develop, as appropriate, international programmes, networks and organizations aimed at defining, conducting, assessing and financing research, data collection and monitoring, taking into account the need to minimize duplication of effort"	In the persistent organic pollutants management cycle, Socio-Economic Assessment tools contribute to supporting cross frontier activities to improve practice whilst minimizing duplication.
Article 12 Para. 2	**Technical assistance.** "The Parties shall cooperate…..to develop and strengthen their capacity to implement their obligations under this Convention	Capacity building in Socio-Economic Assessment tools and methodologies can in this circumstance be regarded as contributions to fulfilling obligations under the Convention.
Para. 3	"Further guidance in this regard shall be provided by the Conference of the Parties"	The Conference of the Parties at its first and second meetings, recommended that Socio-Economic Assessment guidance be developed as soon as possible to help build capacity to fulfil obligations under the Convention
Article 13 Para.4	**Financial Resources and Mechanisms.** "The extent to which the developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention relating to financial resources, technical assistance and technology transfer. The fact that sustainable economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties will be taken fully into account, giving due consideration to the need for the protection of human health and the environment.	The obligations under the Stockholm Convention are indivisible from the pursuit of poverty eradication in developing countries. Developed countries are obliged under the Convention to offer technical assistance, financial resources and mechanisms to ensure progress towards developing countries' goals in this regard. Socio-Economic Assessment helps Parties to highlight where the management of persistent organic pollutants and poverty reduction activities are in close alignment (synergistic) and/or are likely to be in direct or indirect opposition (antagonistic) to the goals of poverty reduction and offers opportunities to analyse better alternatives.
Annex E	Information Requirements for the Risk Profile	Helpful in identifying risk criteria
Annex F	Information on Socio-Economic considerations	The underlying rationale for undertaking Socio-Economic Assessment

iii) Contribution to Parties' Commitments to Other Socially-Focused International Agreements

Almost all Parties completing a national implementation plan will have made other socially-focused international commitments to human rights, the rights of children, the rights of women, poverty reduction etc. Many of these will have been embedded in national constitutions and legal systems. Socio–Economic Assessment will help to identify synergies between these commitments and the Stockholm Convention which have important implications for activating national implementation plans:

- It is easier to attract funding when it can be shown that the same funds can be maximized to serve more than one purpose. For example, the Millennium Development Goals and Socio-Economic Assessment both focus on the most vulnerable groups of society; in this context, groups of people most likely to be affected by persistent organic pollutants and measures to reduce their social impacts (see the Box below);
- Such synergies raise the possibility of making community consultation processes less demanding both on the communities themselves as well as on the implementation teams.

In relation to ***The Millennium Development Goals (MDGs)*** the obligations of the Stockholm Convention are indivisible from the pursuit of poverty eradication in developing Parties as people living in poverty the world over are more likely to be affected by the impacts of persistent organic pollutants and the impacts of measures to mitigate their impact. It is therefore important that national implementation plans are brought into line with any national policy, such as Poverty Reduction and Social inclusion Strategies, which seek to help that country achieve locally set MDG targets. As well as being informed by these policies and plans, the national implementation plan can also make a positive contribution to them.

Developed Parties are obliged under the Convention to offer technical assistance, financial resources and mechanisms to ensure progress towards the goals of developing country Parties and Parties with economies in transition in this regard. Socio-Economic Assessment helps Parties to highlight where the management of persistent organic pollutants and poverty reduction activities are in close alignment (synergistic) and/or are likely to be in direct or indirect opposition (antagonistic) to the goals of poverty reduction and offers opportunities to analyse options for the best alternatives to follow.

A3 How Socio-Economic Assessment might affect your interventions.

Including Socio-Economic Assessments at various points during the development and implementation of the national implementation plan will enable the country team to:

- work with different groups and individuals who are affected by persistent organic pollutants and who may be affected by a country's activities to halt the environmental and health damage caused by persistent organic pollutants;
- establish a baseline databank of citizens' perceptions, issues and priorities. In most Parties, data for this purpose is not drawn together. It facilitates the future monitoring and evaluation of the national implementation plan;

- understand the varying impact on different groups and to tailor interventions accordingly; These will work at different levels, for example: designing activities to help change buying behaviours; understanding and planning successful re-housing of communities from toxic sites; retraining and re-employment of populations made redundant by cessation of industrial processes producing PCBs or dibenzo-Dioxins and dibenzo-Furans;
- tailor the activities of the national implementation plan to the needs of the people affected by persistent organic pollutants;
- reconsider its national implementation plan priorities by broadening areas of interest from technical management to the incorporation of societal and economic issues;
- reconsider its action plans; if the Socio-Economic Assessment shows that the risks and costs of implementing a particular alternative will be too great for the community that is affected, then alternative strategies can be planned and put into place, reducing the possibility of unacceptable and unplanned outcomes.

A.4 General Principles and Practices Guiding a Socio-Economic Assessment

Taking into account Article 1 of the Stockholm Convention, the following principles and practices should guide Socio-Economic Assessment:

I. Link to National and Regional Strategies and Programmes
II. Ensure Equity of Impact
III. Focus assessment on the most significant impacts
IV. Acknowledge the importance of qualitative and well as quantitative data
V. Involve diverse stakeholders
VI. Use Socio-Economic Assessment practitioners and multidisciplinary teams

It is important that each Party developing and implementing their national implementation plan can identify and link into other relevant policies and strategies. The following are examples of the type of strategy which necessarily involves a socio-economic dimension and can at least give information on which socio-economic issues are critical in the geographical area.

- Multilateral environmental agreements such as the Basel and Rotterdam Conventions and the Strategic Approach to International Chemicals Management (SAICM);
- Other United Nations Conventions and agreements such as ILO conventions, WTO and regional economic Trade Agreements;
- Poverty Reduction Strategy Papers and the Millennium Development Goals.

Membership of national implementation plan country teams is likely to involve (or should perhaps consider involving) personnel whose departments/ministries are working to achieve targets for similar types of policies and strategies. These representatives have an important role to play in establishing coordination mechanisms for developing the national implementation plan and, at the same time, providing a conduit for the exchange of information about policies, priorities, strategies and programmes.

II Ensure Equity of Impact

Identification of all groups likely to be affected is central to the concept of impact equity, (See Section A5 for information on Stakeholder Analysis). It is therefore important to detail precisely how each group is affected. The decision to change a management practise, for example, to prohibit manufacture of a pesticide identified as a persistent organic pollutant or to require factories to reduce releases of unintentionally-produced persistent organic pollutants, will always create ‘winners’ and ‘losers’. However no category of persons, particularly those that might be considered more sensitive or vulnerable as a result of age, gender, ethnicity, race, occupation or other factors, should have to carry the costs of such interventions. Socio-Economic Assessment provides an opportunity to ensure that the management of persistent organic pollutants impacts positively on the most vulnerable groups and that negative impacts are minimized.

III Focus assessment on the most significant impacts

The team conducting the Socio-Economic Assessment must contend with stringent time and resource constraints that affect the scope and detail of its assessment. Given such constraints, a central question emerges: "If you cannot cover the social universe, what should you focus on?" The answer is to focus on the most significant impacts, especially to the most vulnerable groups. To do this, the team must employ a variety of rapid appraisal or investigative techniques to identify all significant impacts for all affected groups early on. Clearly, impacts identified as important by the public must be given high priority. It is essential that broadly based public involvement occur throughout the life of the Socio-Economic Assessment; but additional means (e.g., key informants, participant observation, and where possible, surveys) must be used often to ensure that the most significant public concerns are addressed.

IV Acknowledge the importance of qualitative and well as quantitative data

All assessors strive to identify and quantify significant impacts, thereby providing decision makers and the affected public with information that is both as complete and as accurate as possible. However, social impacts, and all their complexities, are often difficult to quantify. With this in mind, it is better to be roughly correct on important issues than to be precisely correct on unimportant issues. It is also important to understand the

nature of the information being used and the uncertainties inherent in it. The use of qualitative data such as that generated by stakeholder consultation can contribute more effectively to sound prioritization and decision-making.

V Involve diverse stakeholders

This means involving representatives from different groups within the community: women, men, youth, different ethnic groups, people living in poverty, private sector (local, national and multinational), civil society, local and national government[2]. In relation to community groups, the more local the consultation, the easier it will be to ensure that the diverse interests and needs of these groups are truly represented, rather than 'translated' through elites. The stakeholder analysis will help to ensure that the various stakeholders are correctly identified and their views taken into account.

VI Use Socio-Economic Assessment practitioners and multidisciplinary teams

A wide range of skills are needed to do Socio-Economic Assessment. These are different from those typically held in scientific and technical departments of government. The need for professionally qualified, competent people with social development, social and economic analysis training and experience cannot be overemphasised. An experienced Socio-Economic Assessment practitioner will know the data and be conversant with existing social science evidence pertaining to impacts that have occurred elsewhere which may be relevant to the impact area in question. A social scientist will be able to identify the full range of important impacts and then will be able to select the appropriate measurement procedures.

Having a social scientist as part of the interdisciplinary Socio-Economic Assessment team will also reduce the probability that an important social impact could go unrecognized. In assessing social impacts, if the evidence for a potential type of impact is not definitive in either direction, then the appropriate conservative conclusion is that it cannot be ruled out with confidence. In addition, it is important that the Socio-Economic Assessment practitioner be conversant with the technical and biological/environmental perspectives brought to bear on the project, as well as the cultural and procedural context of the agency they work with.

A.5. The Main Tools used in Socio-Economic Assessment

The tools described below are of two main types – those for gathering Socio-Economic Assessment information and those which help to analyse it and integrate it into general

[2] For further guidance on stakeholder participation see Section 5.4 of the Guidance for developing a national implementation plan for the Stockholm Convention (2004)

project and programme planning. They are all ways in which socio-economic data can be gathered and analysed and are of use in many places in the Stockholm Convention national implementation plan cycle and in the development and implementation of programmes and projects to implement priority actions. Many of them will also be useful in considering actions necessary under other, related, chemicals and wastes agreements.

Stakeholder Analysis is the central tool of Socio-Economic Assessment and forms the basis of most of the other tools. Stakeholder analysis is itself a collection of tools or processes for identifying stakeholder groups and describing the nature of their stake, roles and interests in persistent organic pollutants risk reduction and management. It helps to identify entry points and actions.

STEP Analysis is a dynamic, strategic planning tool that can be used at the outset of any management initiative for persistent organic pollutants and facilitates a review of the circumstances in which the initiative will take place. It is an acronym for Sociological, Technological, Economic and Political and is an invitation to consider the changes and trends that are apparent, relevant to the development of the national implementation plan.

Social Risk Analysis is the basis for Socio Economic Assessment, and aims to establish thresholds or limits within which social groups can mitigate risk and withstand external shocks. Social Risk Analysis consists of question-type inputs into many tools (stakeholder analysis, livelihoods analysis etc) facilitating an assessment of all major risks to the population, especially the poorest, most vulnerable groups. It is distinguished from Technical Risk Analysis which looks at the impact of persistent organic pollutants upon human health and the environment and the extent of the threat that they pose in any given situation (See Convention Annex E).

Consultation tools are important in finding out how stakeholders perceive the impact of persistent organic pollutants management practices. The consultation techniques are essentially visual, designed to be used with interest groups at all levels, from community to policy making. They are useful for assessment, baseline data gathering, planning, tailoring and delivering information, monitoring and evaluation.

Livelihoods Analysis helps Socio-Economic Assessment specialists to gain a more informed understanding of the livelihoods of different stakeholder groups and the main ways in which the management of persistent organic pollutants affects them. Livelihoods Analysis can help to trace the impacts of external influences – for example changes in policy or law relating to persistent organic pollutants – on, for example, trade, markets, taxes, manufacture, labour and use locally.

Cost Benefit Analysis (CBA) is an analytical approach to persistent organic pollutants options analysis in policy-level decision-making. It attempts to reduce all inputs (costs) and all positive impacts (benefits) to a single measure of money. Cost benefit analysis is based on the simple idea of comparing the costs of an action with the benefits of that action. As such, cost-benefit analysis can assist in a rational way the complex process of making decisions, by assessing the relative costs and benefits of an action against the status quo or an alternative action. However, the processes of converting non-monetary values (like the social costs of persistent organic pollutants management options) to numerical figures are not simple and may involve considerable uncertainty. Furthermore, the assignment of assumed values can give a false sense of certainty unless used with caution and balanced against other sources of analysis and evidence. Stakeholder agreement to the set of assumptions made in assigning monetary values will be important to gaining acceptance for the results of the analysis.

Options Analysis is a collection of tools within the process of the Stockholm Convention national implementation plan cycle that enables the Assessment team to filter of embryonic concepts and ideas, gain a better understanding, build stakeholder ownership and refine useful proposals and reject inappropriate ones. The Options analysis is the mechanism by which the decision-making process concludes.

Logical Framework Analysis, often abbreviated to logframe analysis, is a highly effective and useful tool for organizing a project, or a group of activities, around one common, single, purpose. This tool is the basis for planning, monitoring and evaluating a program for reducing persistent organic pollutants. The Logframe essentially comprises 16 ‘boxes’ which need to be developed in consultation with key stakeholders. Logical frameworks should never be drawn up by a team of consultants working in isolation from stakeholders.

Section B sets out in detail when and how each of these tools might be used during national implementation plan development and implementation

Section C gives more detail including how to use the tools to aid supervision of their use.

SECTION B: UNDERTAKING A SOCIO-ECONOMIC ASSESSMENT

SECTION B: UNDERTAKING A SOCIO-ECONOMIC ASSESSMENT

B1 Using Socio-Economic Assessment at different stages of formulation and execution of the national implementation plan

Socio-Economic Assessment can help at any phase of development of the national implementation plan and during its implementation. If priorities have already been set in Phase I-III of the national implementation plan, then a Socio-economic assessment can be used in order to gain insight into the impacts of mitigation measures already decided. In this case, a brief investigation may be conducted for Phase IV. The results will still be illuminating and will help to plan national implementation plan communication strategies and rule out the worst excesses of inequitable impact. However, to be able to track the impact of mitigation measures, a baseline investigation would have to be carried out in Phase I – III of the national implementation plan development, thus making the exercise more resource intensive, but yielding more useful information.

In practice what each country should be aiming for is a PROPORTIONAL response. If PCBs are your country's obvious number one priority under the Convention, then the tools you use and the depth of investigation will be related to this, and if the scale of the problem is small then the scope and scale of the programme you design will reflect this.

In reality a number of iterations are likely to be necessary at whichever stage of the planning and execution of the Socio-Economic Assessment and/or the national implementation plan has been reached. At each stage it is expected that peer review and consultation with stakeholders will enable buy-in to the results and conclusions reached and if the result of peer review is that no decision easily falls out, or that further risks or issues are raised, a further iteration of data gathering, analysis and decision-making would need to take place.

Table 2: The type and purpose of Socio-Economic Assessment tools in the national implementation plan cycle

Tool	Purpose	Where used
Stakeholder Matrix	Basic way of involving the diverse public	At most stages in any Socio-Economic Assessment and also in national implementation plan, to collect and share information, to feedback and supplement further information requirements
Importance and influence Matrix	To allow vulnerable stakeholder groups a voice to show their own preferences, from their perceptions, of choices	In detailed Socio-Economic Assessments with stakeholder groups when raising issues or planning options for mitigation
Participation matrix	Who you need to involve, how you can involve them and when. Can form basis for communications strategy in projects to mitigate persistent organic pollutants	After stakeholder matrix, in drawing up mitigation plans and throughout the project cycle.
STEP Analysis	What the general social, technical,	Early on in Socio-Economic Assessment and in

	economic and political environment is surrounding persistent organic pollutants use and management	planning cycles
Social Risk analysis	The basis of carrying out any mitigatory measures is to have a clear and full idea of perceived and actual risks.	First stage of identification of problem (national implementation plan Phase I) but also at each level of analysis and also in logical framework development
Semi structured interviews	Checklists of questions to use with key stakeholders to encourage them to share their perceptions – the basis for all community and policy consultation	This tool is one of the most widely used throughout planning, data gathering, review and evaluation (all stages of the Stockholm Convention national implementation plan cycle)
Social mapping, transects and matrices	To detail the differences in current impact of persistent organic pollutants and future impact of mitigatory measures on different stakeholders	In detailed Socio-Economic Assessments with stakeholder groups when raising issues or planning options for mitigation
Transect walks	To explore the significant features of a location in respect to persistent organic pollutants usage practices, storage and the potential impacts of any change	In detailed Socio-Economic Assessments with stakeholder groups when raising issues or planning options for mitigation
Matrices, ranking and scoring	To discuss preferences with stakeholders, particularly with regard to comparing situations or options	In detailed Socio-Economic Assessments with stakeholder groups when raising issues or planning options for mitigation
Livelihoods analysis	Analysis of how different stakeholders live with impact of persistent organic pollutants now, the strategies they adopt now and those they may adopt in face of changing policies and practices	After stakeholder analysis in particular to help envision impact of mitigatory options and draw out the chain of reactions caused by a change in supply or usage of persistent organic pollutant
CBA	To put financial or numerical value on costs and benefits	Due to the detail required it is best used when main issues are already prioritised, to help in choice of mitigatory option
Problem and Objective analysis	Identifies central problem or objective based in a hierarchy of cause and effect	To help in planning scenarios, after the main bulk of information is collected, in the final phases of the first period of national implementation plan cycle and period 2.
Options analysis	A checklist of questions to enable the data from different analyses from Socio-Economic Assessment and other angles, to be compared pending choice of persistent organic pollutants management strategies.	Particularly helpful in final stages of designing/reviewing a national implementation plan and to lead into logframe analysis
SWOT analysis	Identifies strengths, weaknesses, opportunities and threats of different options	To help in options analysis
Decision matrices	A summary of significant features of Socio-Economic Assessment and other aspects which enables final decisions to be made regarding the direction of strategy/action plans	To finalise options analysis, feeding straight into the logframe process at the end of Period 1 in the national implementation plan cycle and start of Period 2.
Logical Framework Analysis	Last stage of Socio-Economic Assessment. Allows use of socio-economic impact indicators of change to be visible targets of mitigation projects	To formalise and standardise plans for mitigatory actions at the end of Period 1 in the national implementation plan cycle and start of Period 2. and then to look back during Period 3 – and review progress to learn lessons for future implementation.

B2 Setting up and undertaking Socio-Economic Assessment within a Programme for Managing Persistent Organic Pollutants

Country teams with responsibility for developing the national implementation plan and translating it into action may not have the capacity to undertake Socio-Economic Assessment. However, the degree to which the national implementation plan can safeguard people – particularly vulnerable sectors of the population - from potentially negative impacts of managing persistent organic pollutants really comes down to the rigor with which Socio-Economic Assessment is conducted. Country teams driving the national implementation plan and the persistent organic pollutant management cycle therefore need to know how and where Socio-Economic Assessment fits with the national implementation plan (Period 1 of the persistent organic pollutant management cycle) and its implementation and the critical milestones in conducting Socio-economic Assessment.

This section of the guidance is not intended as a do-it-yourself manual on conducting Socio-Economic Assessment. Rather it is intended to equip country teams with sufficient understanding of Socio-Economic Assessment methodology and how it fits with national implementation plan development and execution. Armed with this knowledge, it is hoped that country teams will be able to commission specialists with the right skills and experience to conduct Socio-Economic Assessment, and will be sufficiently aware of what that entails in order to monitor the quality and relevance of the information gathered and analysed, While it is the responsibility of the specialists to contextualize Socio-Economic Assessment to the problems of persistent organic pollutants, it is the responsibility of country teams to monitor Socio-Economic Assessment, assess the data produced and engage in the analysis of those data to ensure that they inform the most pragmatic and timely management interventions to address the problems of persistent organic pollutants and their management in the environment.

Urgency and the resources available to the assessment team will determine the duration and thoroughness of the Socio-Economic Assessment process. The issue of proportionality also comes into play here. The scale of further assessment, e.g. in Period 2 of the persistent organic pollutant Management Cycle, is liable to change depending upon what the previous level of assessments uncover. Once the scale is established, objectives can be set and the team who will carry out the Socio-Economic Assessment can be contracted.

Convening a specialist team for Socio-Economic Assessment

It is important to establish a multi-disciplinary team for Socio-Economic Assessment at the earliest opportunity. The team should comprise Social Inclusion/Development specialists with backgrounds in Health, Poverty, Gender, Governance and Education. They should be able to draw support from Environmentalists and Technical specialists, since the Socio-

Economic Assessment will take place at the same time as other technical inventory. See Figure 3 for a set of terms of reference.

Terms of Reference should specify the following:

Capacity
1. Capabilities and experience in participatory community consultation

Outputs
2. Specific types of data including:
3. Evidence that a representative range of informants has been consulted.
4. An indicative list of activities that might be undertaken (leaving the precise management to the team).

Logistics
5. A time frame.
6. A budget.
7. Reporting format.

Figure 3: Terms of Reference for the Socio-Economic Assessment Team

Planning Socio-Economic Assessment

Key stakeholders

Once convened, the Socio-Economic Assessment team will need to determine or be informed of whom in the community to consult or involve in the process and the programming of the consultation events. Typically the scale and time available will not permit the team to interview all stakeholders so they will have to select people they believe will represent the breadth of interests and perspectives within a community. These informants are known as 'key' stakeholders. Care must be taken to ensure that the representative process has legitimacy. For example, does a prospective informant (e.g. an individual or non-governmental organization) truly speak for the stakeholders the team believes he/she/it to represent?

The assessment team will (usually) have only one opportunity to gather information from a key stakeholder during any one period of the persistent organic pollutant Management Cycle. It is therefore imperative that it plans the programme of consultation events carefully and the job of the country team here will be to ensure that consultations are coordinated and informants' time is wisely and respectfully used. The country team and assessment team should be clear about when and where consultations will take place. They should know the important questions to ask of each particular group of people. And the assessment team

should be clear about the most appropriate tools to employ in order to facilitate discussion around those questions.

Wherever possible the assessment team should feed back its overall, synthesised, findings to the stakeholders both to inform them and to seek verification of the data.

Harmonising Socio-Economic Assessment with Implementation of the National Implementation Plan

This part of the guide aims to show the fit between the national implementation plan and Socio-Economic Assessment. Since national implementation plans do not readily lend themselves to practical action, it may be easier to consider activities to reduce the social impacts of persistent organic pollutants collectively as an Impact-Reduction Programme for Managing persistent organic pollutants in the environment. Such a Programme may be divided into four *periods,* (see Figure 1 above*)*: Design, Mobilisation, Management and Lesson Learning. This is distinct from the *phases* of the national implementation plan (see Annex A). Below, the guide sets out which *stages* of the Socio-Economic Assessment fall into each of the *periods* of the Project Cycle. To Recap:

- There are four Periods in the persistent organic pollutant management cycle (Figure 1 above)
- There are five Phases in the national implementation plan (See Annex A)
- There are four Stages in the Socio-Economic Assessment process (See Figure 4 below)

Figure 4, overleaf**,** shows where the *phases* of the national implementation plan fit in relation to the *stages* of the Socio-Economic Assessment process. Although these stages are depicted as though taking place consecutively, it should be understood that there will be some overlap as certain inventories take longer to complete than others.

Equally, feedback is very important to ensure buy-in from important stakeholders. In the diagrams below the feedback loop is not shown but assumed. Questions to prompt the assessment team are in blue. The tools required to answer those questions are in italics and coloured black.

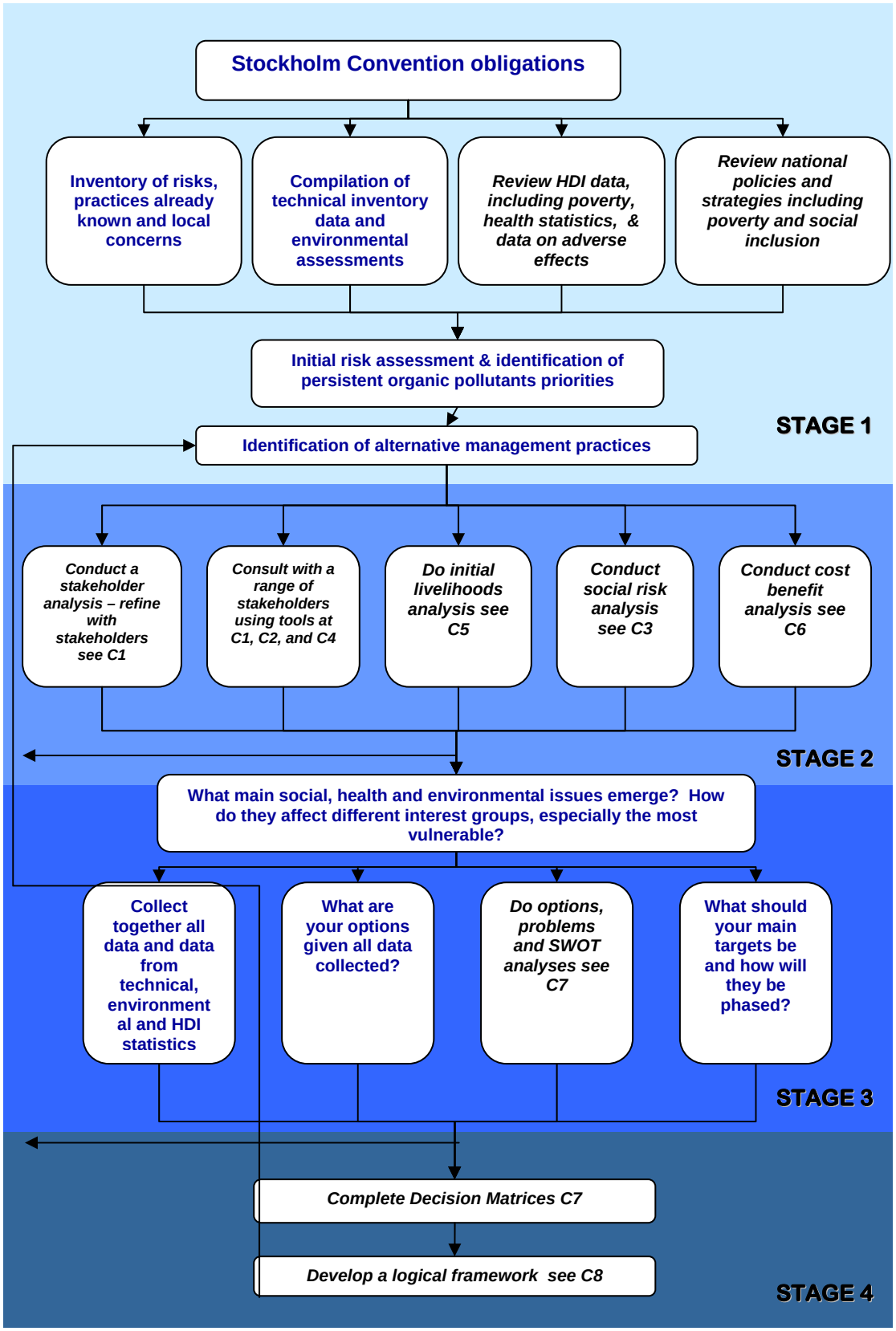
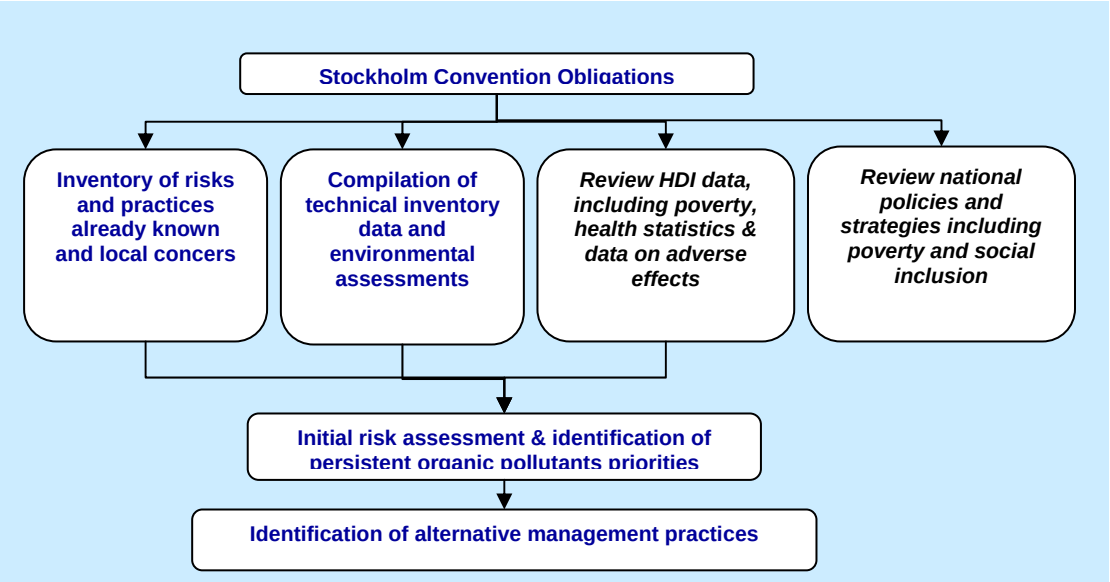


Figure 4: The Stages in undertaking a Socio-Economic Assessment as part of persistent organic pollutants management.

Period 1 of the Cycle for Managing persistent organic pollutants (See Fig.1): Design

The first period of the Cycle for Managing persistent organic pollutants focuses on identifying how such pollutants affect the population and opportunities to mitigate their impact. Period 1 of the Programme Cycle presents the Socio-Economic Assessment team with the opportunity to look at impacts not only from the perspective of the Stockholm Convention, but also with regard to the wider national and international agendas for change. The assessment team is likely to find the STEP tool particularly useful in drawing together the various strands to produce an overall picture of impact on populations (see Section C7).

Period 1 of the Programme Cycle for Managing persistent organic pollutants: Design - Stage 1 of the Socio-Economic Assessment process: Identification of problem and Situation Analysis



This first stage of the Socio-Economic Assessment includes phases I, II and III of national implementation plan development (see Annex A). It is worth noting that this stage is the same as the initial part of any project seeking to implement priority actions set out in the national implementation plan.

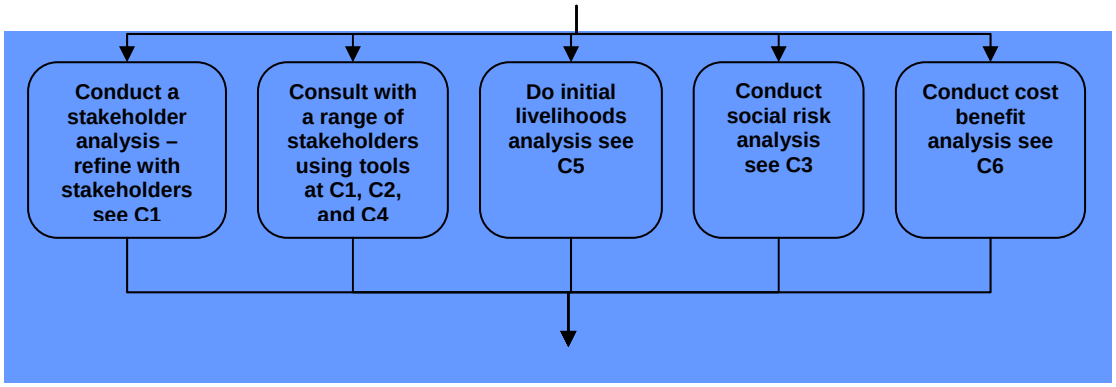
The assumption in Stage 1 is that, with the exception of Convention obligations, no national priorities have been set with regard to persistent organic pollutants. The country team to develop the national implementation plan is being formed and finalized. Information on some aspects of the production, trade, use and disposal of persistent organic pollutants in the country may be available in the public domain and at this point inventories of chemicals will be started.

In conducting the situation appraisal it is important to ensure that the assessment team gathers additional information from all sectors including government, non-governmental and civil society as well as business. The team will need to undertake the chemical inventory as well as to search through national policies such as the poverty reduction strategy paper (PRSP), other social inclusion documents, regional trade agreements and others to understand existing national and regional priorities. This combined information represents the 'baseline' situation appraisal against which future actions will be planned and evaluated.

The best possible situation appraisal is produced by Country teams that include members who can add a layer of socio-economic analysis into any analytical and decision-making process that occurs during the development and execution of the national implementation plan.

The assessment team should seek to conduct an initial risk assessment at the end of this stage. Taking into account the scale of risk determined, technical and socio-economic considerations and relevant national policies, strategies and programmes, the team can begin to identify priorities for action. It may also identify alternative practices to manage the highest ranking risks.

Period 1 of the Programme Cycle for Managing persistent organic pollutants: Design - Stage 2 of the Socio-Economic Assessment process: Undertaking the Socio-Economic Assessment



In Stage 2 of the Socio-Economic Assessment, the assessment team will focus on collecting primary data. This is true for any level of analysis or Period of the persistent organic pollutant Management Cycle. Section C of this guide provides an overview of the tools that the assessment team is likely to use during this stage. All are participatory, recognizing the importance of allowing all sectors of society an equal voice such that if a decision is taken that will negatively affect a particular group, activities will be put in place to minimize those negative impacts.

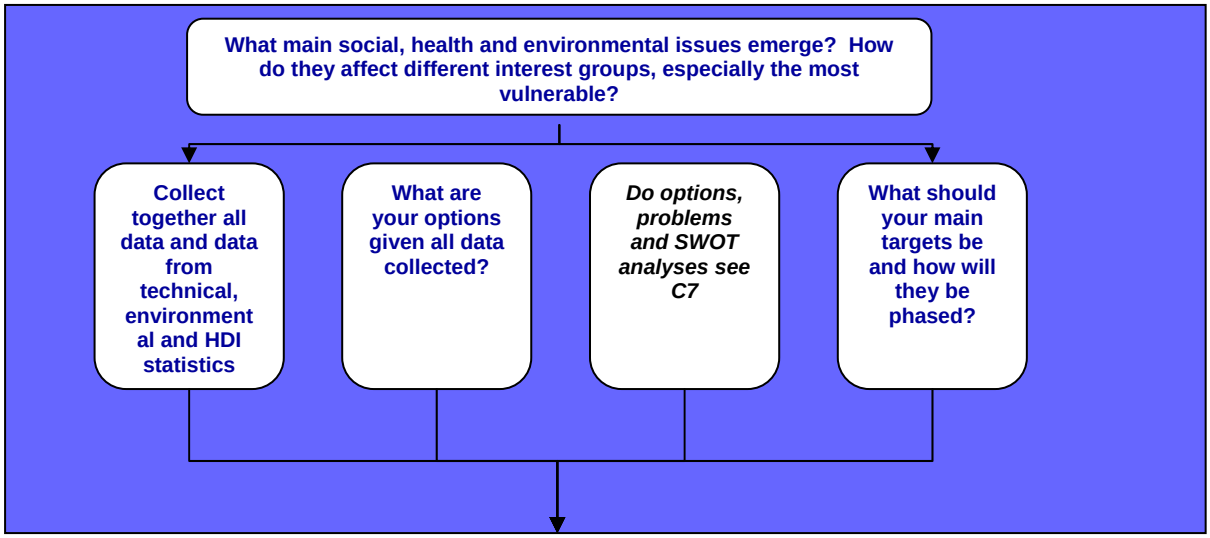
Participatory appraisal tools

The assessment team is likely to start with a stakeholder analysis (C1) which itself comprises subsets of tools to help more vulnerable community members to contribute and highlight their interests. The assessment team is likely to talk to many community members as part of the stakeholder analysis and is likely to make use of a number of other social analysis tools, in particular:

- Social risk analysis (C3) – this provides data on the risks faced by the most vulnerable groups of a community and thresholds beyond which they are unable to withstand external shocks.
- Mapping, including transect walks (C4) – this is a guided tour of the area in which community members guide the assessment team and can point out the impacts of persistent organic pollutants on their community and its environment.
- Ranking of preferences – in particular if likely options are already being discussed (C4)
- Initial livelihoods analyses (C5) - this allows comparison of current situations with likely change as a result of persistent organic pollutants-reduction activities.

Country Teams will then use the evidence and data gathered during the Socio-Economic Assessment to inform decision-making. Socio-Economic data needs to be considered alongside institutional, regulatory, technical and scientific data.

Period 1 of the Programme Cycle for Managing persistent organic pollutants: Design - Stage 3 of the Socio-Economic Assessment process: Options Analysis

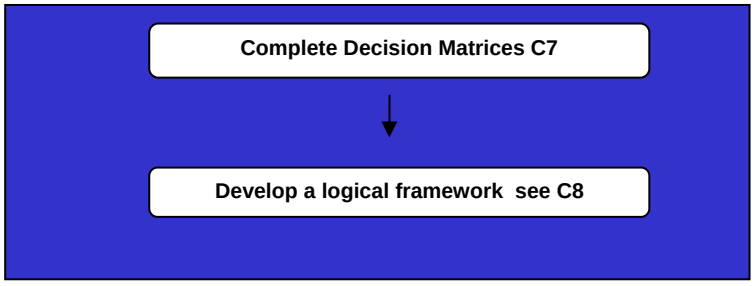


By Stage 3 of the Socio-Economic Assessment process, the assessment team will have collated the most important information pertaining to impacts of measures to reduce

persistent organic pollutants on the communities affected. Options analysis (C6) is a collection of tools which the assessment team will now use to weigh up the various chemicals management options and design initiatives to reduce or phase-out banned persistent organic pollutants.

In this stage, the assessment team may split up to undertake information gathering more efficiently. The country team will need to bear in mind the importance of effective coordination and communication to ensure that significant details are shared between the social and economic analyses. The assessment team may find that tools from C7 (Problem and options analysis) are useful in analyzing options and moving forwards.
The next step is to construct a formal national implementation plan proposal.

Period 1 of the Programme Cycle for Managing persistent organic pollutants: Design
Stage 4 of the Socio-Economic Assessment process: Action planning



In Stage 4 of the Socio-Economic Assessment process, the assessment team employs tools to help inform decision-making are employed. These tools are not only used in Socio-Economic Assessment but are widely used in project management and project cycle analysis.

- Problems and Options analysis
- SWOT analysis
- Decision-making matrices

Through discussion with the assessment team, the country teams will by this stage have clearly understood and evaluated the social costs and benefits. The assessment team may use the logical framework (C8) to turn intervention ideas into actions in a logical and transparent way.

Experienced assessment teams will adapt and refine tools to suit the situation in hand. They may decide that one or more of the tools are not needed at all for a specific situation. However, together, the tools should enable the team to provide country teams with a

powerful insight into the needs of the citizens of a country seeking to address the risks posed by persistent organic pollutants and ensure that these needs have equal exposure alongside the technical aspects of tackling the problem.

At this point there should be a well argued proposal that can be presented to funders for support. It should be linked into the wider development agenda and have public support resulting from the Socio-Economic Assessment process.

Period 2 of the Programme Cycle for Managing persistent organic pollutants: Molbilisation

Once the proposal has been granted resources, the country team will move into the second period of the programme cycle. The initial stage is similar to Phase 1 of the cycle (see Annex A), in as much as it involves putting a management team together.

Period 2 of the programme cycle involves revisiting the Socio-Economic Assessment (essentially similar to Stages 3 & 4 in Period 1 above), both to verify that the initial assessment is still accurate but more to focus the questions towards the practical aspects of the proposal.

This period ends with the country team constructing a logical framework (as in Stage 5 above), and drawing up Terms of Reference for the various partners in the implementation. The Terms of Reference will clarify roles and responsibilities, targets and time frames as well as the resources available.

Period 3 of the Programme Cycle for Managing persistent organic pollutants: Management

The logical framework and Terms of Reference emerging from Period 2 provide the framework in which implementation actions can be undertaken. In addition to the actions themselves, overseeing this period of the Programme Cycle for Managing persistent organic pollutants requires country teams to gather feedback information and adjust plans in real time. Thus the structures and timetable for Monitoring (continuous) and Review (periodic) will be the main output of this initial stage.

Once more, these management processes will rely heavily upon Socio-Economic Assessment as well as technical assessments that will be conducted in parallel or as part of the actions themselves. Again, country teams should choose tools need according to the information they seek and adjust their use in relation to the specific issues being explored.

This period concludes with the production of progress reports that capture what has been done, which targets have been attained and an accounting of the resources expended.

With respect to the first objective the booklet sets out the conceptual framework of the importance of social indicators in successfully preparing and implementing a national implementation plan and explains the remit and boundaries of a socio-economic analysis.

In order to carry out a socio-economic analysis the various methods and tools are explained, with reference to the kinds of data that provide insight, both for baseline and impact evaluation analyses.

With respect to the third objective, the booklet systematically positions the socio-economic assessment within the process of decision-making at any stage of the development of the national implementation plan and within the planning cycles to take action on persistent organic pollutants.

Period 4 of the Programme Cycle for Managing persistent organic pollutants*:* Lesson Learning

Armed with the factual reports, the Lesson Learning Period again begins with the establishment of a team to collate the lessons.

Socio-Economic Assessment will be necessary to establish the impacts of the national implementation plan and its action plans in order to inform the development of the next iteration. The information sought at this stage will tend to be about efficiency and effectiveness of the original ranking of issues and of the implementation of the action plans set out in the national implementation plan.

Finally the outputs of the lesson learning will feed into the Identification at the commencement of Period 1 of the next Programme Cycle. This represents a further phase of action plans and may include the updating of the national implementation plan. There, the lessons learned will be combined with any new planning work, arising, for example, from the addition of new persistent organic pollutants chemicals to the Convention, and adjustments to national priorities and policies.

SECTION C: 'HOW TO' GUIDES

C1 STAKEHOLDER ANALYSIS

WHO ARE STAKEHOLDERS?

A **Stakeholder** is any person, group or institution that has an interest in a development activity, project or programme. This definition includes intended beneficiaries and intermediaries, winners and losers, and those involved or excluded from decision-making processes. The role Stakeholders play in any participatory process may differ for any number of reasons but all may bring legitimate perspectives to the table.

STAKEHOLDER ANALYSIS

Stakeholder analysis is a collection of useful tools or processes for identifying Stakeholder groups and describing the nature of their stake, roles and interests.

Doing a stakeholder analysis helps to:

- identify who we believe should be consulted and engaged with as part of the national implementation plan preparation process and/or proposed persistent organic pollutants-reducing initiatives.
- identify winners and losers, those with rights, interests, resources, skills and abilities to take part or influence the course of the process.
- improve the national implementation plan's sensitivity to the perceived needs of those affected.
- reduce or hopefully remove negative social and economic impacts on vulnerable and disadvantaged groups
- enable useful alliances which can be built upon thereafter
- identify and reduce risks; for example identifying areas of possible conflicts of interest and expectation between stakeholders so that real conflict is avoided before it happens
- enable understandable and timely information disclosure
- improve chances of opportunities for accessing funding
- enable the successful implementation of chemicals management strategies and initiatives.

Stakeholder analysis is an iterative process which should, ideally, be carried out as part of the initial preparation of the national implementation plan, and again before implementation of the Plan gets underway. In this way it can be used to explore with stakeholders, both the social and economic impact of the chemicals themselves, and of the activities designed to reduce or eliminate them.

It needs to be done with a variety of stakeholders to explore perceptions and verify them by cross-reference.

How to do a Stakeholder Analysis

There are many different tools to help people to think about stakeholders. The following is a simple and commonly used process used to identify the individuals and groups that need to be consulted and their real/potential interests in the process.

There are several steps:

Step 1.Stakeholder Identification – drawing up a stakeholder table

a Thinking as broadly as possible, make a list of possible stakeholders in the persistent organic pollutants –reduction initiative (E.g. Period 1 of the national implementation plan cycle it might be a table for each persistent organic pollutants family. In Period 2 it

would be whatever initiative had been decided upon). Consider here, not just the more obvious key players, but also more vulnerable and marginalised groups who might not normally be consulted but who are nevertheless affected by the chemicals and/or their phase-out.

b Identify, as thoroughly as possible, their interests (hidden or open) in relation to the initiative and its objectives. Note each stakeholder may have several interests.

For example: Continuing use of a particular pesticide may have detrimental long-term effects on the health of farmers – but, How will a potential fall in crop yield as a result of not using the pesticide affect the income and status of subsistence farmers?

c Make a preliminary assessment of the likely impact that initiative may have on each stakeholder's interests. Use symbols as follows

+ potential positive impact on interest
- potential negative impact on interest
+/- possible positive and negative impacts in different circumstances

As can be seen in the example above, a stakeholder group may be impacted in both positive and negative ways by the proposed activities.

d When all stakeholders are listed, rank the stakeholders in order of their priority for the outcomes of the national implementation plan/an implementation programme

-

Stakeholder Table example

Stakeholders	Interests	Likely impact of the initiative	Priority of interest
Working children	Safe working environment, social protection, alternative source of income	+/-	1
Poor women	Malaria protection. Healthy babies and children, income	+/-	1
Farmers	Healthy crops, better health, habits related to perceived status	-/+	1
Private sector companies with agricultural base	Improved product/ greater public awareness of alternative products	-	4

This is however, only one simple example of a format for a Stakeholder table. Others can be used to include further information on stakeholders which may be relevant to the process. The following is an example of a Stakeholder table for a PCB Management initiative which follows a slightly different logic

PCB Management: Stakeholder Analysis EXAMPLE

Stakeholder	**Characteristics** **Goal, Social, economic Structure, organizations, status attitudes**	**Interest & expectations** **-expected results**	**Issues of concern** **environment issues, cooperation with other stakeholders**	**Potential & deficiences** **-resource endowment** **- knowledge, experience** **- potential contributions**	**Implications and conclusions of the project** **-possible action required**
Ministry of Environment	Centralised decisions in terms of resources - Ministry council decides, after a while, which projects to undertake - Better environment	- Lead role in the project - Improved image in the community -Lead role in all chemical related projects	Environment main issue of concern - Cooperates well with all ministries except with Agriculture	- No financial resources available - Expertise available (experts trained on PCB management) - Planning capacities	- Take advantage of expertise available - Review central allocation of resources and enquire if resources are available for PCB management
Ministry of Industry	- Decentralised structure - Industry associations as a partner - Improved industry performance	- Lead role in training industries for PCB disposal - competitive (nationally and internationally) industries - Lead role in all industry training activities	- Industry performance and respect of environment main issue of concern - Relations with Ministry of Environment could be improved -Never worked with NGOs	- Financial resources may be available through industry associations - expertise available	- PCB management policy required -detailed updated inventory of PCBs -industry sectors dealing with PCB well identified - enquiry industry sectors willing to participate
Electrical facilities	- Centralised decisions - Projects supported at the national level - funding restricted to change of equipment - Any project need to create financial opportunities - Environment is not a priority	-Workers well trained on PCB management - Needs provision of temporary storage facility until destruction - Fewer human health risks -Economic benefits in front -collaboration with other counterparts	- Maintenance of PCB equipment neglected - relations with Ministry of Environment could be improved - Potential benefits for the sector not clear	- Resources available very limited - knowledge of the problem can be shared - expertise needed	- Little knowledge on alternative technologies to PCBs - enquiry which facilities are willing to participate
NGOs	- Flexible economic and social structure - Protection of health and environment as a main objective	-Safe environment - less PCB in the country	- Cooperation with other sectors may be not easy and may take time - concerns about public access to information	- Resources needed to operate - Experience in training communities	Sensitization of public on PCB management and health/ environment risks

UNEP DGEF, 2005

Step Two. Assess the Influence and Importance of Stakeholders

How 'key' stakeholders can influence or are important to the success of an initiative.

- **influence** is the power which stakeholders have over the 'project'. How much can stakeholders (whether individual, group or organization) persuade or coerce others into making decisions or doing things?
- **importance** is the priority given by the 'project' to satisfying the needs and interest of each stakeholder.

a Combine influence and importance on a matrix diagram. Position stakeholders in relative terms by using the matrix. It can help to do this as a team exercise.

Quadrant A	Quadrant B
Quadrant D	Quadrant C

Quadrants A, B and C are the key stakeholders of the project - those who can significantly influence the project or are most important if project objectives are to be met.

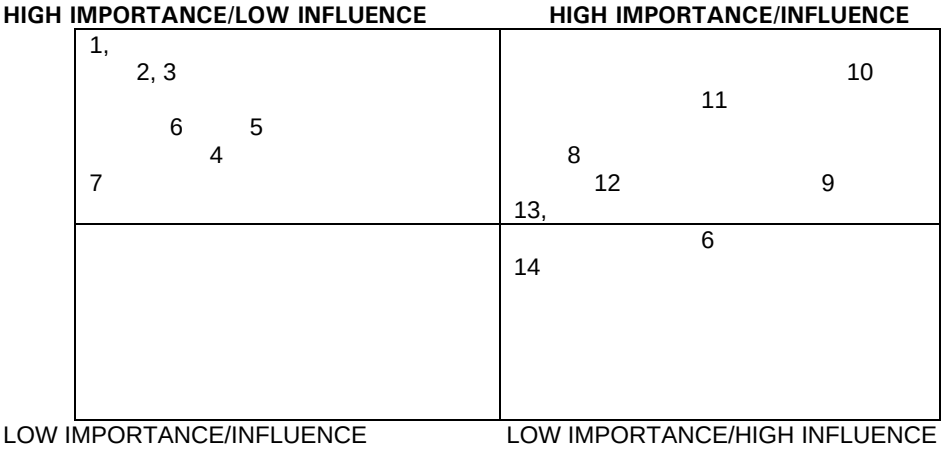
Quadrant A Stakeholders of high importance to the project, but with low influence. They require special initiatives if their interests are to be protected.

Quadrant B Stakeholders of high importance to the project, but who are also of high importance for its success. Project managers and donors will need to construct good working relationships with these stakeholders to ensure an effective coalition of support for the project.

Quadrant C Stakeholders with high influence, who can therefore affect the project outcomes, but whose interests are not the target of the project. These stakeholders may be a source of risk; relationships will be important and will need careful monitoring. These stakeholders may be able to 'block' the project, and if this is probable, the risk may constitute a 'killer assumption', i.e. one that means it is too risky to go ahead with the project at all.

Quadrant D Stakeholders in this box are of low priority but may need limited monitoring and evaluation. They are unlikely to be the subject of project activities and management.

An Example Of An Influence/Importance Matrix



STAKEHOLDERS

1 Children - all
2 Working children
3 Street children who live by transformers
4 Women
5 Pregnant women
6 Farmers
7 Market traders
8 Private sector electricity company
9 Health workers
10 NGOs
11 National government
12 Community leaders
13 Religious leaders
14 National media

Step Three Identify appropriate stakeholder participation

a Based on the Stakeholder Table, draw up a **Summary Participation Matrix** to clarify the role that all key stakeholders should play at different stages of the initiative cycle.

b Discuss with individual stakeholders the role they should play; i.e. where they should be placed in the matrix.

Summary Participation Matrix

Type of participation / Stage in initiative	Inform	Consult	Partnership	Control
Identification				
Planning				
Implementation & Monitoring				
Evaluation				

Again, the format for this stage may vary widely. However, the process should serve to create an outline communication strategy for the initiative, ensuring that engagement with key stakeholders (particularly those more marginalized or vulnerable groups, whose voices often go unheard) is ongoing.

C2: STEP ANALYSIS

STEP ANALYSIS

STEP analysis is a dynamic strategic planning tool that can be used at the outset of any initiative and facilitates a review of the circumstances in which the initiative will take place. It is an acronym for Political, Economic, Sociological and Technological, and is an invitation to consider the changes and trends that are apparent, relevant to the development of the national implementation plan.

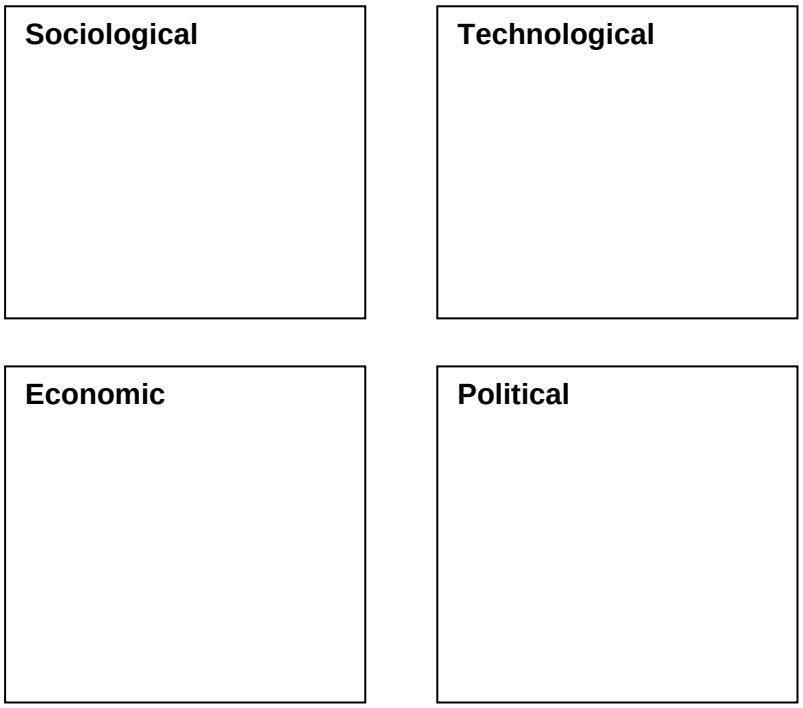
Doing a STEP analysis helps to:

- provide a good framework for reviewing strategy, position and direction of the national implementation plan to ensure that it matches national priorities or the agendas of potential funders.
- get stakeholders discussing the significance of issues contributing to the planning environment early on in the process
- make early connections between key technical, social, economic and political aspects –
- draw out interests and motivations of different stakeholders

It is particularly useful to carry out a STEP analysis among a diverse set of stakeholders– such as different professionals gathered together, or service providers with clients, etc.. to triangulate and verify the different perceptions.

How to do a STEP analysis

The STEP analysis template is normally presented as a grid, comprising four sections, one for each of the STEP headings: Sociological, Technological, Economic, and Political. It represents the situation as it is, not as we would wish it to be.



Step 1: The stakeholders brainstorm all the trends within the circumstances in which the national implementation plan will be operating. Within these boxes can be the results of social and stakeholder analyses, Poverty Reduction Strategy Plans, Participatory Poverty Analyses, as well as Environmental Audits. Thus the tool can help to locate options within a policy context before National implementation plans are finally planned.

Step 2: Review the lists, noting any evidence that the items listed are really important. Revise the lists by deleting any items you no longer think need to be included.

Step 3: Identify the links between persistent organic pollutants and the trends and changes within each box. How can those links be exploited or used to support the national implementation plan when negotiating with funders or partners.

C3: SOCIAL RISK ANALYSIS

Social risk is the possibility that the intervention would create, reinforce or deepen inequity and/or social conflict, or that the attitudes and actions of key stakeholders may subvert the achievement of the development objective, or that the development objective, or means to achieve it, lack ownership among key stakeholders. Such risks may arise out of the country's socio-cultural, political, operational or institutional context. In general the sources of risk can be grouped in five categories: vulnerability, country risks, political economy risks, institutional risks, exogenous risks.

World bank 2006 Glossary of Key Terms in Social Analysis
http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTSOCIALANALYSIS/
,

SOCIAL RISK ANALYSIS

Social risk analysis is a collection of tools for facilitating an assessment of all major risks to the population, especially the poorest, most vulnerable groups with the aim of establishing thresholds or limits within which social groups can mitigate risk and withstand externally induced shocks. It is distinguished from Technical Risk Analysis which looks at the impact of persistent organic pollutants upon human health and the environment and the extent of the threat that they pose in any given situation (See Convention Annex E).

Doing a social risk analysis helps to:

- identify those who are likely to be adversely affected by the proposed persistent organic pollutants-reducing initiatives, through the creation, reinforcement or deepening of inequity and/or social conflict.
- understand the local perception on risk, health and safety.
- recognise the importance of belief systems, education, identity and worldviews of the affected people
- determine how local communities perceive the risk of persistent organic pollutants in the environment
- improve the national implementation plan's sensitivity to the vulnerability of those affected.
- reduce or hopefully remove negative social and economic impacts on vulnerable and disadvantaged groups
- identify and reduce risks; for example identifying areas of possible conflicts of interest and expectation between stakeholders so that the interests of those whose health and livelihood is damaged by persistent organic pollutants are not overturned by those who have an economic interest in the status quo
- enable useful alliances which can be built upon thereafter
- enable understandable and timely information disclosure
- improve opportunities for accessing funding
- enable the successful implementation of chemicals management strategies and initiatives, with particular emphasis upon mitigatory measures.

Social Risk Analysis another iterative process which should, ideally, be carried out as part of the initial preparation of the national implementation plan, and again before implementation of the Plan gets underway. In this way it can be used to explore with stakeholders, both the social and economic impact of the chemicals themselves, and of the activities designed to reduce or eliminate them. It can have significant impact upon prioritisation and to emphasise particular mitigatory measures that need to be incorporated in the national implementation plan.

How to Do a Social Risk Analysis

NB these methods complement technical risk assessments – guidance provided under Annex E of the Convention – and assume that a spatial mapping of affected areas precedes social risk assessment

Step 1: Analysis of Vulnerability and Perceptions to Exposure of Population, Farmers, Consumers and Workers

This is best done through asking a number of questions during the stakeholder analysis described in C1. Questions will relate to the perceptions of the groups and should be triangulated (double-checked using other tools) as far as possible, such as with other consultation tools found in C4:

a Ask questions to ascertain the:

- Relative number of and types of people involved in the risk
- Resilience of groups – ie what are their particular vulnerabilities, such as what choices they feel they have to change, e.g. what trends re persistent organic pollutants usage are they experiencing and what would trend reversal mean
- History and experience of people in the area regarding interventions that have been imposed before
- Public perception of persistent organic pollutants elimination
- willingness – and ability – to pay for alternatives to current practices

b Carry out a ranking exercise, such as described below in C4 to list the perceptions of stakeholder groups of the risks

Step 2: Assess level of risk to affected populations

Draw up a table with stakeholders of each of the identified risks for stakeholder groups needs to be assessed and for its level of probability (how likely is it to happen) and impact (what would be the impact if it did). These can be assessed in a number of ways, but it is common to express these as High (H), Medium (M) and Low (L). Mitigating measures should be built into the national implementation plan as activities

Social Risk matrix table

Stakeholder Group	Potential Risk of persistent organic pollutants management action	Proba bility	Impact	Mitigating measure	Level of priority for managing risk
ethnic minority group a	Loss of livelihood selling fertilizer	H	H	Small Enterprise project	High
Working children	Lack of income	L	M	Provision of vocational education and training	High
Women	Loss of income – greater susceptibility to malaria	M	H	Private sector/government provides alternatives	High
farmers	No available affordable fertiliser	H	H		High

C.4 CONSULTATION TOOLS

CONSULTATION TOOLS are important ways in which the perspectives of stakeholders can be ascertained, regarding socioeconomic issues that affect them. The techniques used are all Participatory Appraisal tools which are designed to be used with interest groups and are very visual in their content. Some are more community based and others can be used at policy level. They are useful for assessment, baseline data gathering, planning, extension, monitoring and evaluation

Using the consultation tools helps to:

- involve stakeholders in the early stages of an Socio-Economic Assessment
- emphasize local knowledge and enable local people to make their own appraisal, analysis, and selection of options.
- enable the inclusion of diversely interested groups of people, which helps lay the foundation for community ownership of development planning
- facilitate information sharing, analysis, and action among stakeholders
- enable development practitioners, government officials, and local people to work together to plan context appropriate programmes and make decisions about alternative options.
- understand the interaction between poverty and the impact of pesticides in particular, or other persistent organic pollutants.
- enable triangulation of qualitative data to ensure that information is valid and reliable
- enable planning and execution of information plans which are suitable for diverse stakeholders

C4.1 Semi-Structured Interviews are the cornerstone of Community consultation techniques in any period of national implementation plan cycle since good, two way communication is required at all times between Socio-Economic Assessment teams and their participants in Socio-Economic Assessment. Rather than focus on questionnaires or surveys, semi-structured interviews rely on highly skilled people who talk to key informants around a checklist of subjects that need to be addressed. They ask questions, discuss, probe and try to get to the bottom of issues, such as social risks (C2), peoples' real agendas (C1), and livelihood issues (C5) without exposing the participant to feelings of discomfort. Responses can be triangulated using other tools in C4.

C4.2 Maps, are an inexpensive tool which can be used to gather both descriptive and diagnostic information. Mapping exercises are multi-purpose and can be used at the planning, forecasting, review and evaluation stages of the national implementation plan cycle and are useful at the start of a process to motivate people to become involved in the process. By putting people from similar backgrounds together, a consensus may emerge about the physical extent of persistent organic pollutants pollution, for instance. By putting different groups together, differences of perception may also emerge. **Social maps** are where people show the location of households, the relationships between them, and the factors relevant to their relative wealth and poverty. Health mapping is one type of social map, which uses symbols to show where people with different conditions live and highlight perceived sources of health risks and care. This kind of map particularly helps to understand the interaction between poverty and the impact of pesticides. It should also help to identify vulnerability issues regarding any changes – such as whether poorer people live closer to the site of pollution and which authorities would need to be involved in mitigating the effects of a wholesale removal of that population from a contaminated site.

C4.3 Transect Walks allow the Socio-Economic Assessment team to get a feel for the area as they walk across it. Importantly they allow community members to point out or draw the team's attention to features of their environment and the team to informally ask specific questions about things that they notice along the way. This is particularly useful for rooting out continued use of persistent organic pollutants, understanding persistent organic pollutants usage practices which are localized and/or not easy to spot from large scale surveys, unexpected impacts of persistent organic pollutants reduction activities, etc.

C4.4 Matrix ranking, quantifying and scoring

These are techniques of finding out individual's or group's estimates, knowledge, criteria, preference rankings and preferences about an issue (eg effects of persistent organic pollutants usage or importance of a pesticide in stakeholders' livelihoods). These are useful for participatory planning and for taking forward into Options Analysis. They also complement Semi-structured (informal) Interviews by generating information leading to more focused and direct questions

Apart from presenting facts in relatively quantifiable form, these techniques present the assessment, perceptions, preferences and ranking of local people which are often different from those of planners, researchers and other outsiders.

- Ranking is placing things in order relative to one another
- Scoring is giving things a number based on a criterion scale
- May be used as part of an interview or as a separate exercise

C4.1 How to Do a Semi Structured Interview

There are 3 main activities involved:

- **observation**: keep the eyes open and take in all observable information
- **conversation**: dialogue, talk with people and listen to them
- **recording:** discreetly take notes to be written up in full later

Step 1 Prepare a checklist or guide.

As a team, prepare a checklist of questions that relate to the subject/s of the visit. This list might be quite extensive if the Socio-Economic Assessment team are visiting a location to ascertain stakeholder interests, priorities, perceptions of risk, livelihoods etc. However the aim is to develop a two-way discussion, or a flowing 'chat' rather than a formal interview so that interviewers must be prepared for subjects to shift and change and not keep to a hard and fast schedule.

Step 2 Carry out the informal interview

Socio-Economic Assessment teams should remember to:

- be sensitive to informants' needs and ideas,
- listen attentively,
- ask open-ended questions starting with: WHO? WHAT? WHEN? WHERE? WHY? HOW?
- Probe answers carefully.
- Judge responses: are they facts, opinions or rumours?
- Verify answers through cross-checking

- Generate new ideas and questions as you proceed.

Step 3 Post interview recording and verification

After the interview the team should record responses and observations fully and then triangulate/cross check with other informants' responses. The information from the semi-structured interview can now be incorporated into other anlalyses such as C1, C2, C5 etc.

C4.2 How to Do a Social Map

Step 1. Making the map.

Stakeholders make a map of the current/existing situation in the locality using whatever materials are to hand (can be paper, but can also be using a stick to draw in sand) starting with a layout of the place marking out the following:

- paths and roads
- dwelling /compounds
- key infra-structural facilities - water supply, religious centres, schools, clinic, granary, mill, agricultural suppliers, factories etc.

Step 2. Adding in the social differentiation

Stakeholders add detail to the map, depending upon the reason for the mapping, such as

- Population:- no. of adults/male/female children, no. per household etc school going children
- Health - location of houses with persons having chronic disease, inoculated children, family planning, those who go to hospital.
- Socio-Economics Status:- location of rich families, poorest ones, marginal farmers, medicine man/women,
- Depict which people might use which local resources, eg people living where use the community grain store, which people might buy supplies from the agrochemicals shop and is that grain put into the community grain store

C4.3 How to do a transect walk

Step 1: Decide on the factors to be drawn in the transect e.g. land use, facilities, whereabouts of shops which may have stocks of old persistent organic pollutants, potential producers of persistent organic pollutants or what remains of them, problems, opportunities.

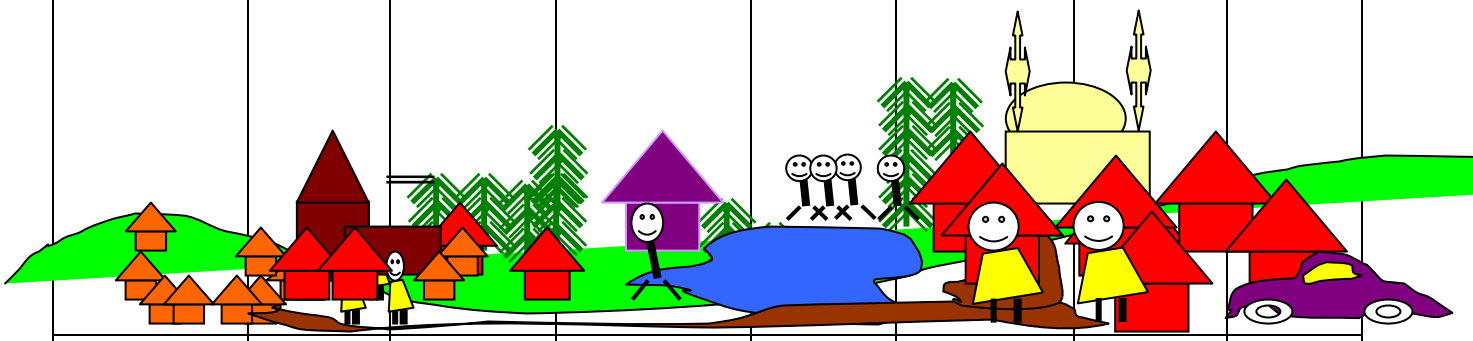
Step 2: Discuss the route to be taken.

Step 3: Walk the transect interviewing people along the way. Observe, ask, listen, note, Sketch distinguishing features.

Step 4: Draw the transect – do not be too detailed. This can be done with/by a community.

Step 5: Cross-check the transect information with other community members during further primary investigation

EXAMPLE OF A TRANSECT WALK DIAGRAM

							
Physical Resources (Infrastructure) Poor housing this end of village	Mining equipment in relatively sound condition	Roads in poor state of repair	Housing stock improved School		Improved roads	Best housing at this end of community.	Modern car
Natural Resources		Forests for timber	Pasture land	Lake with fish Water source			
Social Resources	Women's group formed to look after elderly in poorest end of village. Church		Man is union representative – has political power School is meeting place	Fisherfolk meet to share news. raises Women come to collect water		Mosque	
Human Resources		Interviewed man – a miner. Has worked in mine all of his life. Wants to acquire carpentry skills	School has committed teachers, but not enough of them. Average attendance 78% male, 62% female	Men with fishing skills	Women with college qualifications in business admin	Koranic School	
Financial Resources I	Smart Church Poor housing					Expensive new Mosque	Evidence of affluence

C4.4

Pairwise Ranking

- items are compared in pairs – DDT use, DDT availability, crops, infrastructure, soil types etc.
- the items are written on cards or pieces of paper. Respondents are handed two of the items or two pieces of paper/card. They are asked to choose one and explain reasons for choice.
- continue until all possible pairs exhausted.
- a simple matrix can then be used to record the responses after all the species are ranked according to the reasons given

Matrix Ranking/Scoring – Socio-Economic Assessment team ask what is good or bad about objects or issues. Instead of comparing pairs as it may be difficult to compare unequal objects or issues. It can be done in the following steps:

a Choose any individual or group

b Ask people to choose a class of objects (tree species, crop varieties, vegetables, pesticides etc) or choose from issues of concern regarding persistent organic pollutants identified from earlier interaction - issues/objects which are important to them and about which they know a lot.

c Ask them to name the most important. The list can be anything from 2 to 7 or 9.

d Elicit criteria by which respondents judge or distinguish between the items; e.g. what's good or bad about them? what are they useful for? why do people evaluate the items in the way they do?

e List all criteria. Turn negative criteria (eg vulnerable to pests) into positive ones (not vulnerable to pests) so that all are positive. This is very important if there is to be any hope of your overall ranking being valid; it is often not done.

f Draw up a matrix with objects across the top and criteria down the side.

g For each criteria the items can be either ranked or scored.

- For ranking, ask which object is best by each criterion. With six objects one can use the following sequence.
  - which is best?
  - which is next best?
  - which is worst?
  - which is the next worst?
  - of the two remaining, which is better?

Usually with Ranking each item is assigned it's own rank, though when respondents cannot distinguish between two items in relation to one criterion, it is possible to assign them the same rank, e.g. 2=; the next ranked item would then be 4. Record the rankings for each criterion directly onto the matrix.

- For scoring, make up a scale as appropriate; for example
  - 1=extremely useful; used every day
  - 2=very useful; used once a week
  - 3=fairly useful; used once a month
  - 4=not very useful; used only occasionally
  - 5=not useful at all; hardly ever used

  With Scoring, many items can be given the same score; and for some scores there may be no item.

h Ask the respondent for a final choice with a question such as "If you could only have one of these, which one would you choose? Which next? until all are ranked. Record these.

i You may want with the respondent to then total the rankings or scores in some way and compare this with their 'final choice'. **Be very careful in this; in some circumstances you may be coming up with totally spurious data.** Sometimes addition of the values may be valid. Where criteria 'compound' each other, it may be more valid to multiply values. In some situations, neither may be valid. Remember one of the principles of these consultation techniques is **appropriate imprecision;** we are generally only seeking trends or relative approximations. Do not conjure up a masquerade of precision either when it is not needed or, especially, when it may not be valid!

C5: LIVELIHOODS ANALYSIS

A Livelihood is the total means of living that any person has. These include the resources at our disposal, including our own health and that of those around us, our education (human capital) our networks and ability to influence both within our group and between our interest group and others (social capital), as well as the finance, physical infrastructure and natural phenomena (financial, physical and natural capital), available to us. Our ability to achieve our aspirations are dependent upon the strategies we choose (knowingly or unknowingly) and those strategies are in turn dependent upon a number of aspects. For most of us, the strategies chosen are dependent upon the resources at a person's disposal, as mentioned above. However these are also modulated by the context of vulnerability in which a person finds themselves (subject to shocks (poisoning), stresses (insecure employment), positive or negative trends (malaria control)) and the degree of help or hindrance given by those structures (authorities, institutions like the police, a country's welfare system) and processes (laws, policies and their practice) which are controlled by others, notably the state. In this way, a livelihood is a kind of system; if one part of the system changes (e.g. a change in a law or a withdrawal of a chemical from common usage) there is a traceable effect throughout the system.

A sustainable livelihood is one that can recover from shocks and stresses and continue to strive towards the well-being which defines that person's aspirations in life.

Livelihoods Analysis helps us gain a more informed understanding of the livelihoods of different stakeholder groups and the major influences that shape them. Livelihoods analysis is carried out using a checklist relating to the 'system' described above, in combination with other tools & methods like stakeholder analysis, consultation tools, step analysis etc, to gain this insight. It is always essential to go beyond a static snapshot to explore trends over time and how people adapt to these, especially from the persistent organic pollutants management perspective, when attempting to forecast the impact of alternative management options. (DFID sustainable livelihood guidance sheets 3.1 2000 accessed from www.Livelihoods.org)

Doing a Livelihood Analysis helps to:

- Understand how changes in policy can impact on vulnerable stakeholders to adapt to the required change
- Show where in the livelihoods 'system' a 'bottleneck' can result in impoverishment and increased risk and vulnerability to certain stakeholders
- Recognize where in the 'system', a mitigatory or developmental activity could yield a net benefit
- Demonstrate the differing impacts of good laws which are poorly enacted, upon poor and/or vulnerable groups
- forecast the impact of a proposed change (eg of policy)

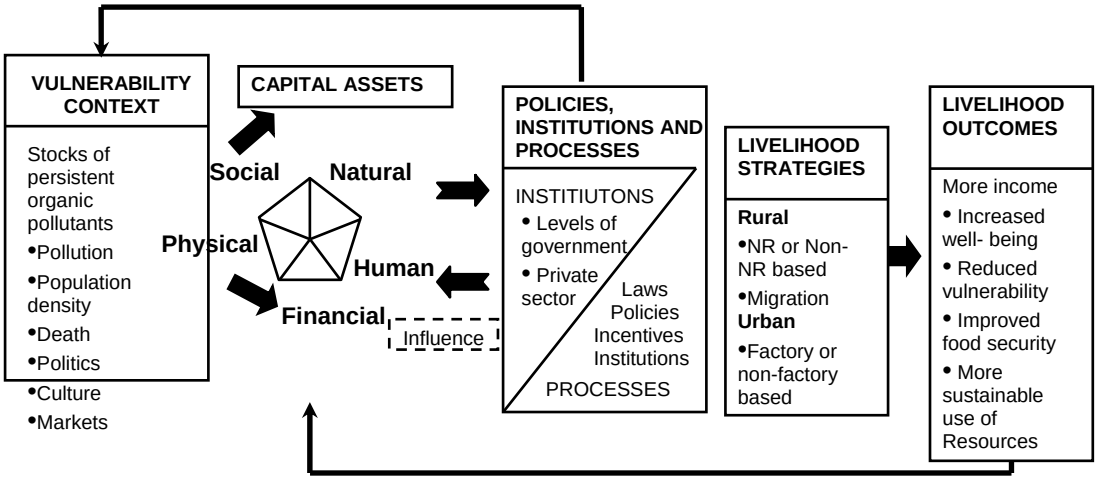
Livelihoods analysis is an important tool which can be used in the planning, forecasting, monitoring and lesson learning periods in the national implementation plan cycle. The unique aspects of livelihoods analysis are that they give an opportunity for policy makers to build upon the resources that already exist in the community. This analysis also puts people firmly in the centre of the analysis, rather than having efficiency of resource use as the key. At an early, baseline gathering phase, a livelihoods analysis could ascertain the resources, policies, processes and strategies of the risk-related issues surrounding the production or usage practice of a persistent organic pollutant. It is likely that this would help to bring alive the current shocks and stresses associated with the livelihood strategies. A livelihoods analysis then feeds into a risk analysis.

At a later, options analysis phase, a livelihoods analysis can help to pinpoint policy

changes that will be helping or hindering to vulnerable groups. It can also show how, depending upon how a good persistent organic pollutants reduction policy is implemented, a helping or further hindering environment can be visited upon a vulnerable community. An example of this is banning the use of a persistent organic pollutant pesticide without investing in an alternative. A chain of reaction through the reduction of capital resources and increase of vulnerability through hunger etc, can be mapped. Mitigation activities can then be planned to remove the negative aspects of the process.

Step 1: Using social risk analysis questions (C3), other consultation tools (C4) and stakeholder analysis (C1) the Socio-Economic Assessment team designs questions and elicits responses that will enable a livelihoods model to be built like, like the illustration below. A model like this can be used for any stage of the Socio-Economic Assessment or any stage of the national implementation plan cycle. The subject of the analysis can change and the stakeholders that it concerns can be altered

Sustainable Livelihood Framework



Carney, Diana (ed.) (1998), *Sustainable Rural Livelihoods; What contribution can we make?,* DFID, London**.**

Step 2

Examples of livelihoods analyses tables follow: for Periods 1, 2 and 3 of the national implementation plan cycle

Example of a LIVELIHOOD MATRIX in Period 1 baseline situation –

Rural community dependent upon persistent organic pollutants pesticides and firewood fires

Resources	Level and type of resources	Policy and cultural Environment	Vulnerability
Human Resources	Low levels of qualifications and skills (only school teachers and few who have gone beyond primary school) especially among girls	School costs money	High incidence of ill health – high incidence of respiratory disease, cancers , maternal mortality, infant mortality and birth defects,
Social Resources	Strong family bonds	Strong cultural bonds Policies do not affect this directly.	Emigration to town means fewer people available to help those suffering from above and keep farming
Financial Resources	Low levels of available cash Spent on agricultural inputs, such as pesticides, which are likely to contain persistent organic pollutant contaminants for some pest problems. Money buys food during hungry season (limited food supplies bought)	Chemicals company representatives evident, encouraging use of pesticides in general	Illness or crop failure reduces stakeholder ability to cope
Natural Resources	Firewood Crops and fields, water, sunlight	Min of Agriculture undergoing reform. Advisers rarely seen in villages but when they are, use traditional 'modern' advice – use hybrid seeds, use chemical not traditional inputs for pest control	Trend: Necessity to register land or risk losing it. But then have to pay tax on it and use according to registered use If inputs not used, crops don't thrive – hunger rife.
Physical Resources	Housing – made from traditional materials, few lead roofs	Encouraging of registering certificates of occupancy	Taxes on registered houses with Certificates of occupancy – lead people into debt when crop fails due to illness, lack of inputs

Example of a LIVELIHOOD MATRIX in Period 1 or Period 2 Options Analysis – Option to ban use of persistent organic pollutant pesticides – forecast 5 years after implementation

Resources	Level and type of resources	Policy and cultural Environment	Vulnerability
Human Resources	Low levels of qualifications and skills Fewer school leavers as proportion of population Migration to town picking up	School costs money	Slightly lower incidence of acute ill health due to pesticide pollution (from baseline of 5 years previous)– continuing high incidence of respiratory disease, cancers continue, mortality and birth defects continue and illness/non-productive days up, especially in hungry season
Social Resources	Family bonds breaking down	Strong cultural bonds	Emigration to town means fewer people available to help those suffering from above and keep farming
Financial Resources	Lower levels of available cash spent on more expensive, legal, inputs which are still available.	Chemicals company representatives still evident, encouraging use of pesticides in general	Crop failure rates higher and less money circulating in community. Higher incidence of 'hungry season' mortality and morbidity rates Increased incidence of debt due to lower yields, increased hunger/lower productivity
Natural Resources	Firewood Crops and fields, water, sunlight	Policies still encourage use of hybrid seeds, use of chemical over traditional inputs for pest control	Lower crop yields and incidence of post-harvest crop infestation Increased length of hungry season
Physical Resources	Housing – made from traditional materials, few lead roofs	Encouraging of registering certificates of occupancy	Taxes on registered houses with Certificates of occupancy – lead people into debt when crop fails due to illness, lack of inputs or post harvest pest infestation

= What mitigatory measures are needed to avoid the flashpoints of hunger and its impact on human resources and potentially increased vulnerability?

Example of a LIVELIHOOD MATRIX in Period 3 or 4 – Monitoring/Review and lesson learning 5 years after implementation with mitigatory projects in place (small rural business start-up, efficient stoves and traditional pesticide extension practices)

Resources	Level and type of resources	Policy and cultural Environment	Vulnerability
Human Resources	Low levels of qualifications and skills Fewer school leavers as proportion of population Migration to town picking up	School costs money	more ill health anecdotally ascribed to persistent organic pollutants (reflection on new improved baseline data collection), continuing respiratory disease
Social Resources	Family bonds breaking down	Strong cultural bonds	Emigration to town means fewer people available to help those suffering from above and keep farming
Financial Resources	Higher levels of available cash for project participants	Chemicals company representatives still evident, encouraging use of pesticides in general	Crop failure rates higher but more money circulating in community. Lower incidence of 'hungry season' mortality and morbidity rates Increased incidence of debt due to lower yields, increased hunger/lower productivity
Natural Resources	Firewood – less harvested per unit of cooking Crops and fields, water, sunlight	Policies no longer encourage use of hybrid seeds, use of chemical over traditional inputs for pest control	Stable crop yields and incidence of post-harvest crop infestation Increased length of hungry season
Physical Resources	Housing – made from traditional materials, few lead roofs	Encouraging of registering certificates of occupancy	Taxes on registered houses with Certificates of occupancy – lead people into debt when crop fails due to illness, lack of inputs or post harvest pest infestation

C6 COST BENEFIT ANALYSIS

COST BENEFIT ANALYSIS

Cost benefit analysis (CBA) is an analytical approach for those involved in making decisions about complicated issues of policy. Cost benefit analysis is based on the simple idea of comparing the costs of an action with the benefits of that action It highlights that some people gain from the change yet, at the same time, the possibility also exists for compensating those who suffer a loss, that is those who would be left less well off by the change (mitigatory actions).

Doing a CBA helps to:

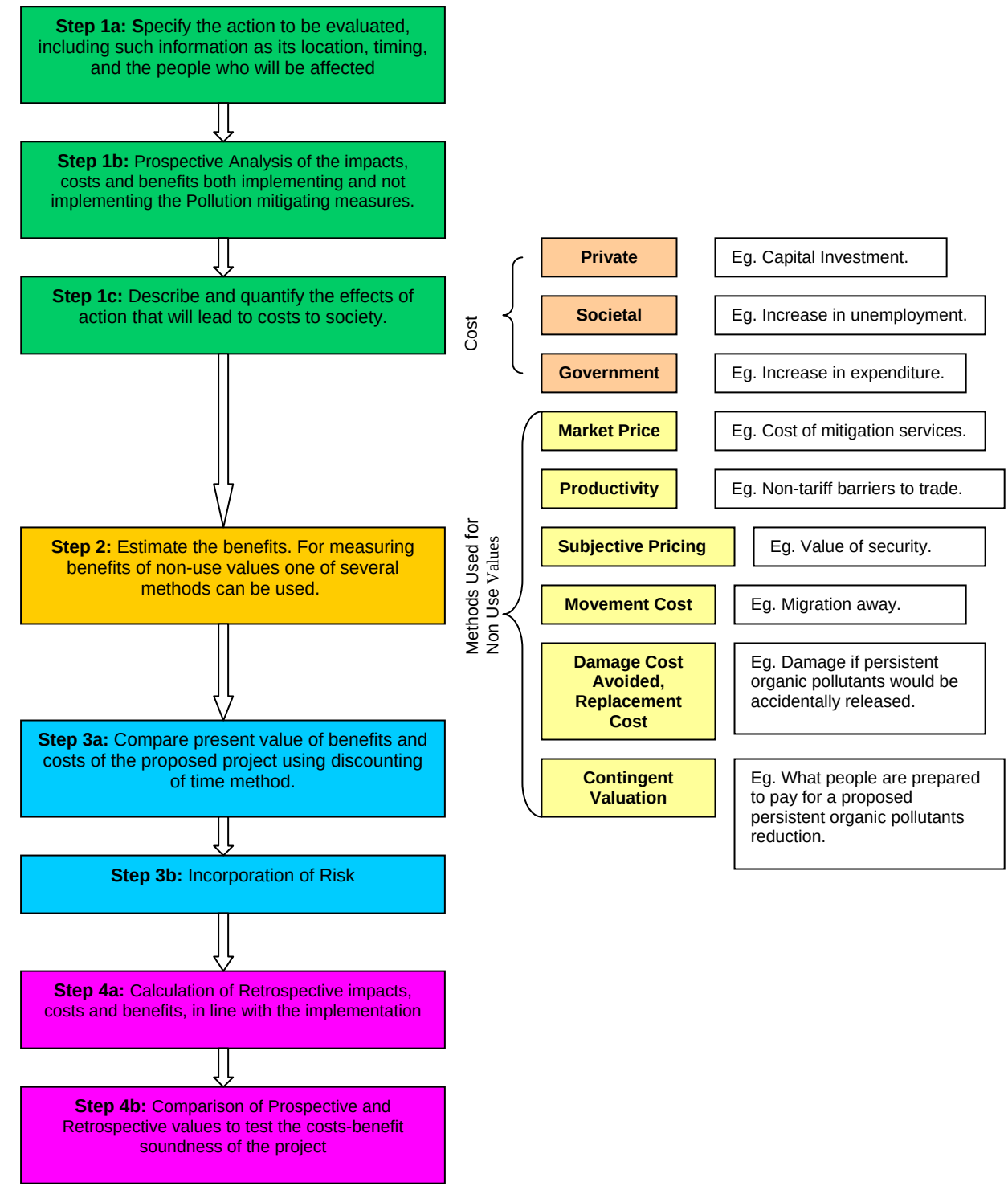
- assist in a rational way the complex process of making decisions
- simplify
- reduce all inputs (costs) and all positive impacts (benefits) to the single measure of money

However, the processes of value conversion are not simple and the reduction to figures can give a false sense of certainty unless used with caution and balanced against other sources of analysis and evidence.

How to do a Cost-Benefit Analysis of phasing out persistent organic pollutants

Cost benefit analysis can be conducting in four steps (See Figure 1). The conduct of cost benefit analysis is, by its very nature, a technical exercise often involving numerous choices and calculations. The more complicated the project or decision, the more care should be taken to identify and measure the key variables and to analyse them appropriately. Whatever merits a project might have, the technical nature of cost benefit analysis should not obscure the fact that the exercise is being carried out to inform the decision making process and not to supplant it (Frank and Sunstein, 2001).

Figure: 1: Illustration of Four Steps in Conducting Cost Benefit Analysis



Adopted from: King and Mazzotta (2006)

STEP 1a: *Specify the Action*

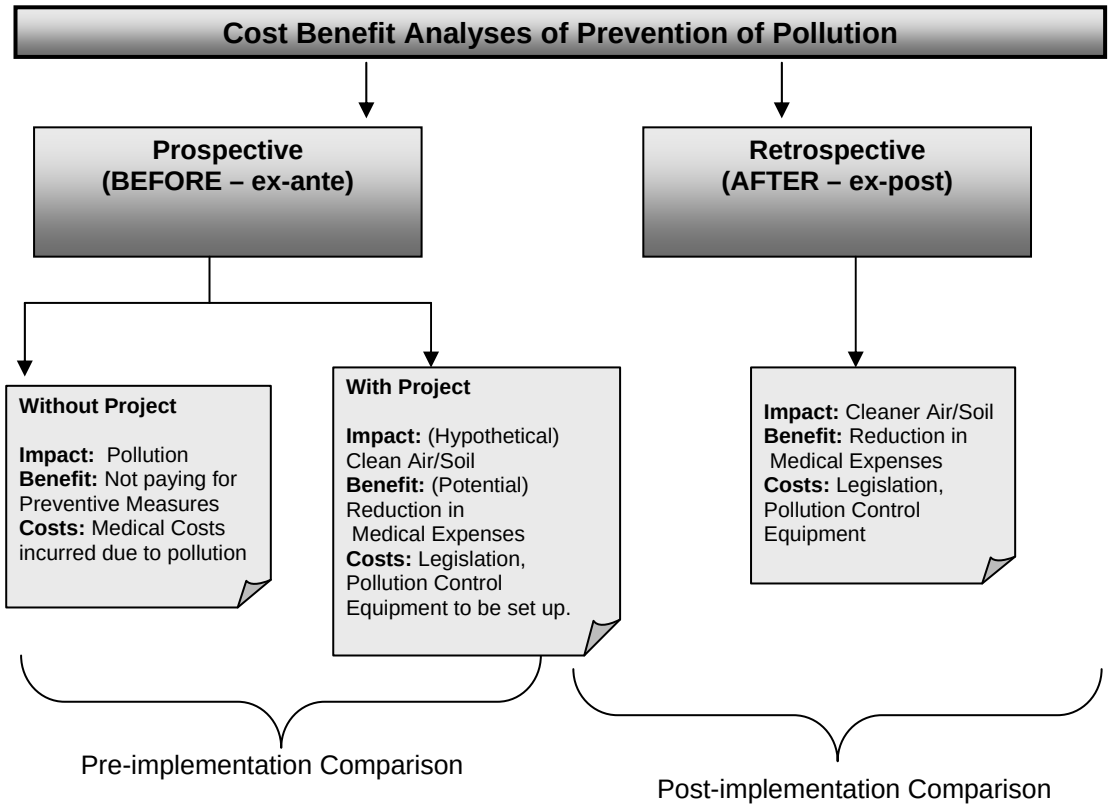
A scoping study has to be carried out to illustrate the base situation, which in theory exists when no changes have taken place. The base situation includes the locations, workplaces, market and people affected by the potential change/s.

STEP 1b: Prospective analysis (Before or Ex-ante) of the impacts (see Fig. 2).

In cost benefit analysis, the *impact* of a project is the *difference* between the situation which would arise *with* the project and that which exists *without* it. Thus, when evaluating a proposed project, the analysis must estimate the situation not only with the project, but also without it, so that these can be rationally compared.

If the sum of benefits of a with-project situation outweigh the costs of implementation, then the pollution mitigating project should be deemed economically worthwhile.

Fig 2: CBA Methods



(Adapted from: Voorhees et. al., 2001)

It follows that, in a "without project" scenario, the level of pollution impact should be calculated as a cost, while the expenditure avoided by not purchasing pollution mitigation equipment should be recorded as a benefit. The cost might be the total current expenditure on health care which is consequent of exposure to pollution.

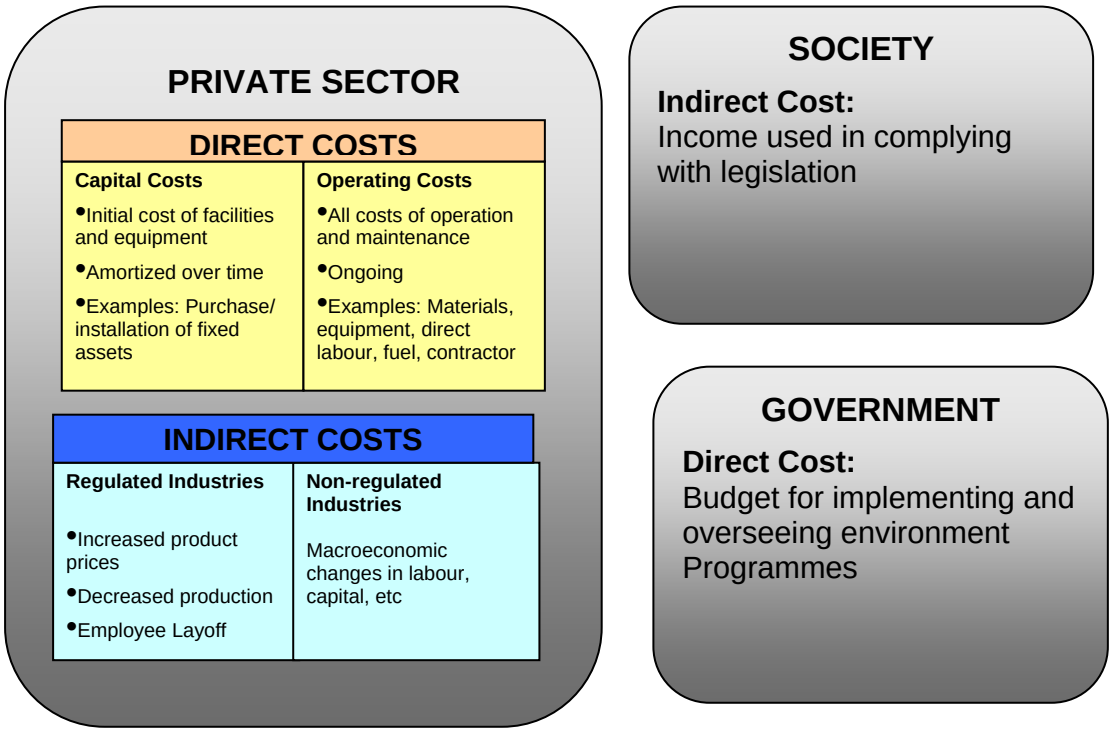
Conversely, in a "with project" situation, the impact of a cleaner environment should be taken into account as a benefit, the reduction in medical expenses from less exposure to pollution should be calculated as a benefit, while expenses to implement the legislation and install pollution control equipment would be costs.

Clearly the stakeholders that bear costs or receive benefits are unlikely to be the same – and part of the judgment must be in regard to the willingness to pay or the willingness to forego benefit. The vulnerable are hardly in a position to express an unwillingness to forego benefits, whilst the rich are well able to protect their economic interest and reluctance to bear cost. This is particularly important in pursuit of the principle of "the polluter should pay".

STEP 1c: Estimation of costs

Cost of pollution/poisoning/livelihood vulnerabilities can feature in all economic sectors- private, civil society and government and the costs can be either direct or indirect effects of the legislation (see Figure 3).

Figure 3: Cost Categories as per Economic Sector



STEP 2: Benefits valuation of both Use and Non-use with relevance to the environment legislation

When the benefits and costs of a policy have been identified, the next step is to express these components in a common metric (unit of measurement). The most common metric is a monetary unit, be it dollars or the local currency (Sunstein, 2000). Then all benefits and costs of the project should be set out in terms of their monetary value. For many components this is straightforward (Frank and Sunstein, 2001). However, a particular

programme may incur benefits or costs which cannot be expressed directly in monetary terms. In such cases, the equivalent monetary value of the project's costs or benefits (deemed to be that sum of money which the recipients of the benefits or costs, when asked, consider to be of equivalent value) needs to be ascertained (King and Mazzotta, 2006).

Figure 4: Comparison of Benefits Valuation Methods

Method	Applicable to…	Description and Importance	Constraints and Limitations
Market Price Method	Direct Use values, especially of products or services.	The value is estimated from the price in commercial markets (law of supply and demand).	Market imperfections (subsidies, lack of transparency) and policy distort the market price.
Damage Cost Avoided, Replacement Cost or Substitute Cost Method	Indirect Use Values: environmental protection, avoided contamination, pollution control, resource retention…	The value of organic pollutant or any other pollutant's removal can be estimated from the cost of building and running a treatment plant (substitute cost). The value of persistent organic pollutant control can be estimated from the (damage cost avoided).	It is assumed that the cost of avoided damage or substitutes match the original benefit. But many external circumstances may change the value of the original expected benefit and the method may therefore lead to under- or over- estimates. Insurance companies are very interested in this method.
Movement Cost Method	Settlement and migration	The recreational value of a site is estimated from the amount of money that people are prepared to pay to move away from pollutants or to spend on settling in an uncontaminated site.	This method only gives an estimate. Over- estimates are easily made as the site may not be the only reason for moving to or from that area. This method also requires a lot of quantitative data.
Subjective Valuation (Hedonic) Pricing Method	Some aspects of Indirect Use, Future Use and Non-Use Values	This method is used when contamination levels influence the price of locally marketed goods. Clean air, safe working conditions, and recreational will increase the sense of security and well being.	This method only captures people's willingness to pay for perceived benefits. If people are not aware of the link between the environment attribute and the benefits to themselves, the value will not be reflected in the price. This method is very data intensive.
Contingent Valuation Method	Non-Use values	This method asks people directly how much they would be willing to pay for specific persistent organic pollutants control measures. It is often the only way to estimate the Non-Use values. It is also referred to as a "stated preference method".	There are various sources of possible bias in the interview techniques. There is also controversy over whether people would actually pay the amounts stated in the interviews. It is the most controversial of the non-market valuation methods but is one of the only ways to assign monetary values to non-use values of ecosystems that do not involve market purchases.
Contingent Choice Method	For all environmental goods and services	Estimate values based on asking people to make tradeoffs among sets of ecosystem or environmental services	Does not directly ask for willingness to pay as this is inferred from tradeoffs that include cost attribute. This is a very good method to help decision makers to rank policy options.

Benefit Transfer Method	For ecosystem services in general and recreational uses in particular	Estimates economic values by transferring existing benefit estimates from studies already completed in another location or context.	Often used when it is too expensive to conduct a new full economic valuation for a specific site. Can only be as accurate as the initial study. Extrapolation can only be done for sites with the same gross characteristics.
Productivity Method	For specific environmental goods and services: water, soils, presence in the air…	Estimates the economic values for environmental products or services that contribute to the marketability of commercially marketed goods (eg. Non-tariff barriers to trade).	The methodology is straightforward and data requirements are limited but the method only works for some goods or services.

Source: Adapted and modified from Lambert (2006) & Voorhees et. al. (2001)

The Benefit Valuation approach outlined in the above figure entails a vast range of techniques for each context for completeness. It should be noted that they are not parallel but instead isolated techniques from which one method or a combination of methods has to be selected according to the nature of goods (i.e. market/non-market, quantifiable) and the socio-economic structure (e.g. proportion or population affected by the potential change) and the environment of the location (i.e. the level of pollution/risk etc).

The Willingness To Pay (WTP) and Willingness To Accept (WTA) indices should be used to portray the subjective preferences for goods. The willingness-to-pay method is an effort to derive social preferences. It attempts to value life comprehensively. Monetary valuations of non-market goods and services such as quality of air, water and ecosystems are estimated in terms of willingness to pay defined as the maximum amount of money a person is willing to pay in order to obtain some level of the good or service. Willingness to accept is the amount of benefit a person is prepared to forgo rather than lose a product or service.

STEP 3a: Estimation of the discounted rate of time to calculate net benefit

The benefits of implementing each project should be adjusted with the time value for money. The introduction of time increases the complexity of the analysis because the monetary value of costs or benefits at some point in the future is not directly comparable to the same monetary value of costs or benefits today. For this reason, cost benefit analysis, which requires comparisons to be based on a common metric, uses a process called 'discounting' to express future costs and benefits in terms of their current-value equivalents (Watkins, undated). This is achieved by discounting costs and benefits in each future time period and summing them to arrive at their present value. Given the rate of inflation, interest and other macroeconomic factors, a discount rate should be decided upon to adjust the value of benefits. For example, at a discount rate of ten percent per annum, the present value of, say, one dollar in ten years is 37 cents; and the present value of one dollar in, say, fifty years time

is 0.67 cents. In general, the longer the time frame, the higher the discount rate and the smaller will be the impact of any given year on total net benefits (King and Mazzotta, 2006).

STEP 3b: Incorporation of risk values to yield the net cost-benefit flow

The incorporation of a risk element is important for analysing future benefit values and especially comparing between different potential projects. For example, one project may involve equipment with a higher rate of depreciation or involve land which is more subject to environmental hazards. When such factors exist, it is imperative to accommodate the cost of risk within the budget, along with "unanticipated costs" which might arise after implementation.

When risk is incorporated within the cost-benefit flow, a project can be deemed economically worthwhile if the net benefit criterion is a positive number. Choice between two or more projects becomes relatively straightforward through choice of that which has the greater net benefit criterion (as a sum of cost and benefits).

STEP 4a: Calculation of impacts, costs and benefits, after the event (Retrospective) in line with implementation (Fig. 1).

This step is similar to the "with project" scenario of the Prospective Analysis but represents the actual impacts rather than the predicted ones. Therefore, after implementation, the subsequent cleaner environment (for example) should be the ex-post impact, while the reduction in medical costs from reduced exposure should be the benefit. The costs involved should be that of policy change and installation of pollution control equipment.

STEP 4b: Comparison of Prospective and Retrospective values to test the costs-benefit soundness of the project

The comparison of the predicted and actual cost-benefits represents the actual testing of a project. If all external factors remain unchanged the following equations should apply:

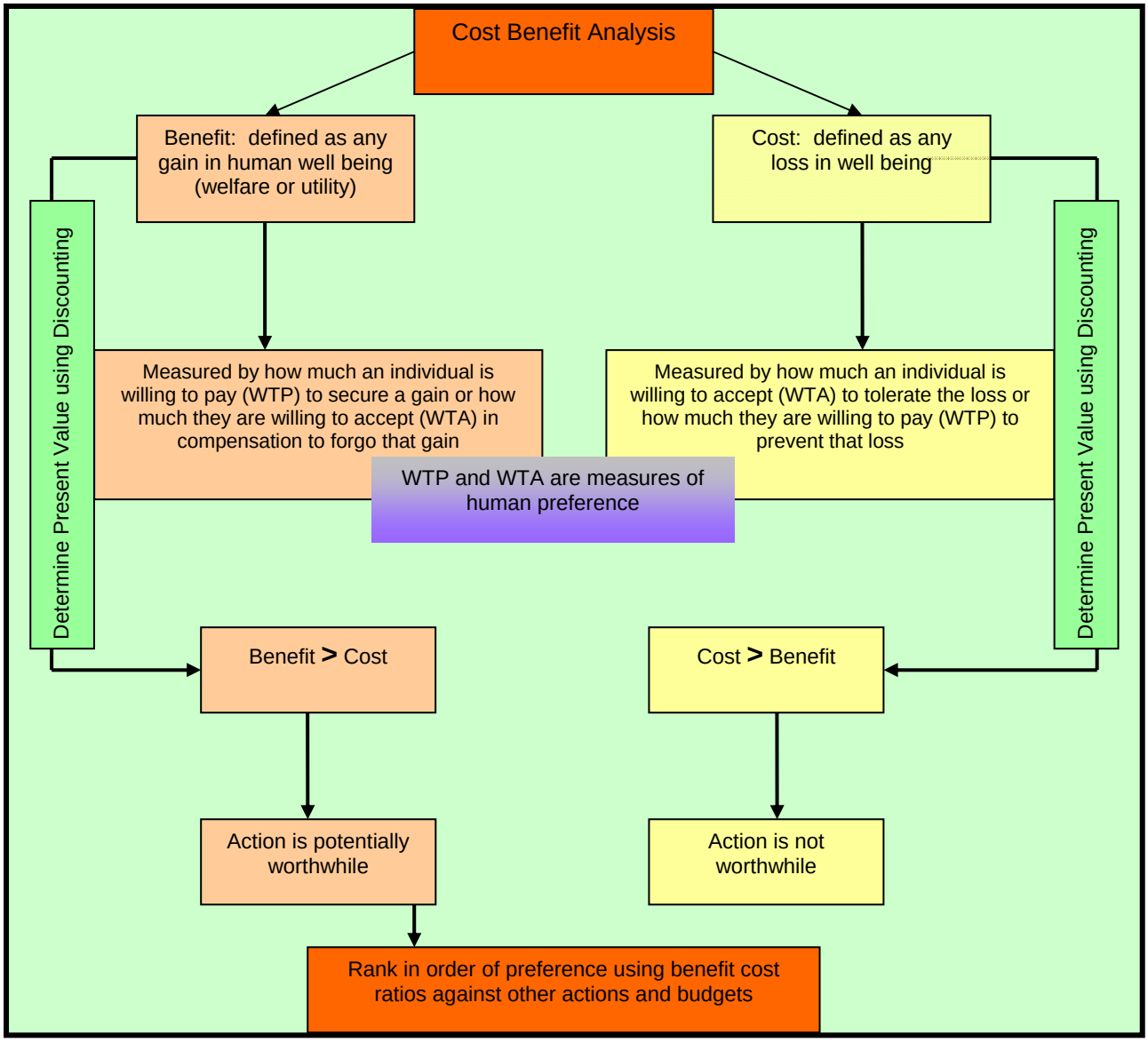
Costs of 'without project' = Benefits of 'with project'

Benefits of 'without project' = Costs of 'with project'

If the actual costs are greater than the predicted costs, one will have to revert back to the plan and more realistically accommodate for unanticipated costs in the budget. However, if the actual costs are less, it may be due to mere overestimation of costs and underestimation of benefits during the Propsective analysis.

The following diagram reflects the essence of CBA methods starting from inception the decision to proceed with implementation.

Figure 5: An Illustration of the Essence of Cost Benefit Analysis



C7 PROBLEM AND OPTIONS ANALYSIS

OPTIONS ANALYSIS

The process of weighing up the various chemicals management options and designing initiatives to reduce/phase-out the banned persistent organic pollutants begins once all the Socio-Economic Assessment data is collected. Options analysis, is a collection of tools within the process of the Stockholm Convention national implementation plan cycle, to enable the filtering of embryonic concepts and ideas, gaining a better understanding, building stakeholder ownership and refining – and ultimately rejecting proposals that, for whatever reason, are inappropriate. The Options analysis is the mechanism by which the decision-making process concludes.

Problem Analysis

A **Problem tree** is one way of doing problem analysis. Essentially this involves mapping the focal problem against its causes and effects. Once the tree is constructed, a hierarchy emerges and the focal problem can be moved up or down the chain or cause and effect.

Objectives or **Vision Tree**. Instead of looking back, looking forward; rather than thinking in terms of negatives, a desired situation in the future is envisioned

Doing a Problem and objectives analysis helps to:

- Understand the whole picture
- Build a greater sense of Stakeholder ownership
- Improve transparency and accountability if more and more stakeholders are given information and decision making power
- Improve equity as stakeholders' needs and interests are taken into account
- Help to establish the scale or response

SWOT Analysis

SWOT analysis is a dynamic strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a situation requiring a decision. It is an extremely useful tool for persistent organic pollutants reduction and socioeconomic analysis.

Doing a SWOT analysis helps to:

- facilitate workshops with key stakeholders
- refine technical and social risk assessments
- refine options – as part of the options analysis

The SWOT analysis provides a good framework (the four headings) for reviewing strategy, position and direction of the persistent organic pollutants reduction plans. It helps by evaluating each option in turn and ranking the different aspects in each box for importance, enabling viability of options to be cross checked.

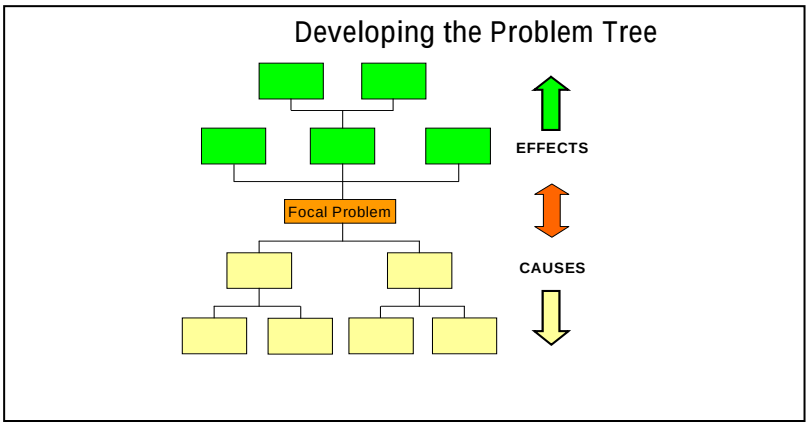
Decision matrices

The Decision Matrices enable decision-makers to summarise and prioritise all the information collected during Socio-Economic Assessment and to agree on a way forward to take into logical framework analysis. The matrices consist of:

- discussion around a key set of questions
- persistent organic pollutants action summary sheet
- Summary Decision sheet

A key aspect of the final decision will have to that the response is proportionate.

C7.1 How to Do a Problem Tree



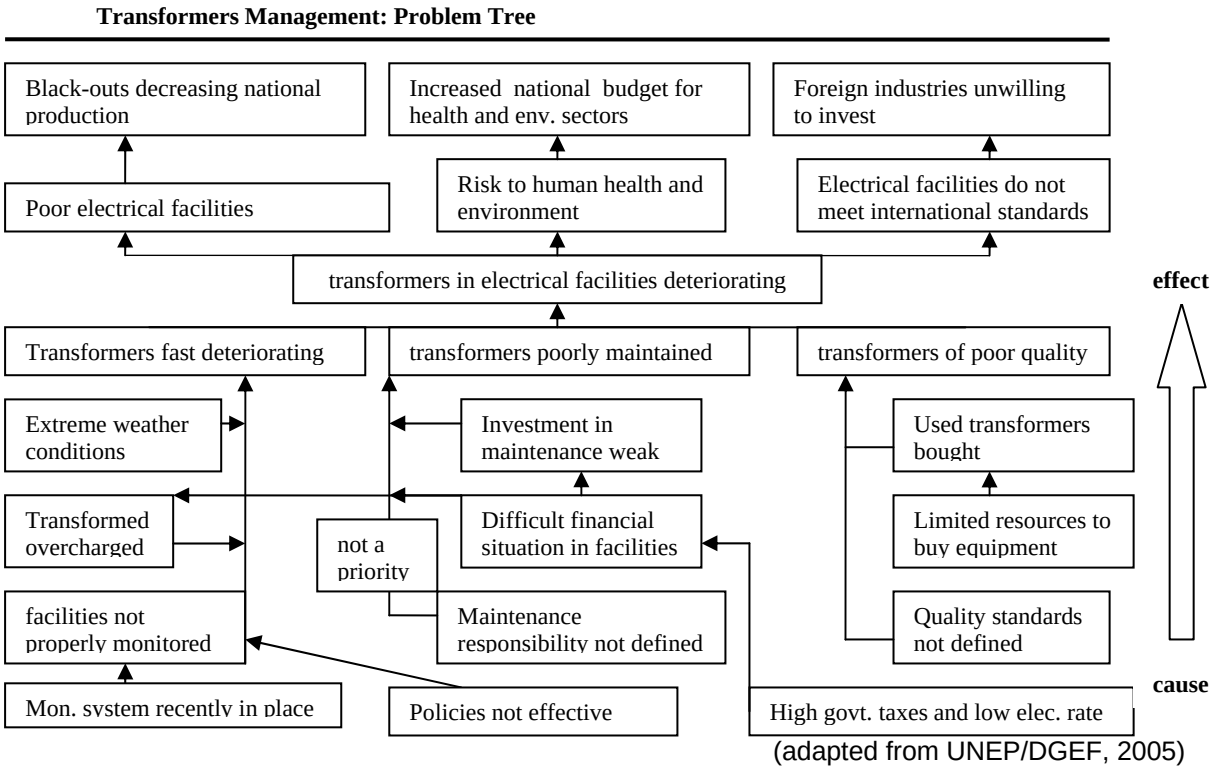
Step 1: Debate and agree the focal problem to be addressed. Position this in the middle of the chart/paper as shown above.

Step 2: Identify and develop the **direct causes** of the problem. Position these on the first level below the focal problem.

Step 3: Identify lower level causes by taking each of the direct causes and asking 'but why?' Position accordingly, drawing connecting lines to show the relationships.

Step 4: Repeat the process for the effects (positioned above the focal problem) starting with the direct/immediate effects of the problem and then the medium/longer-term effects above those.

An example of a problem tree is shown below:



(adapted from UNEP/DGEF, 2005)

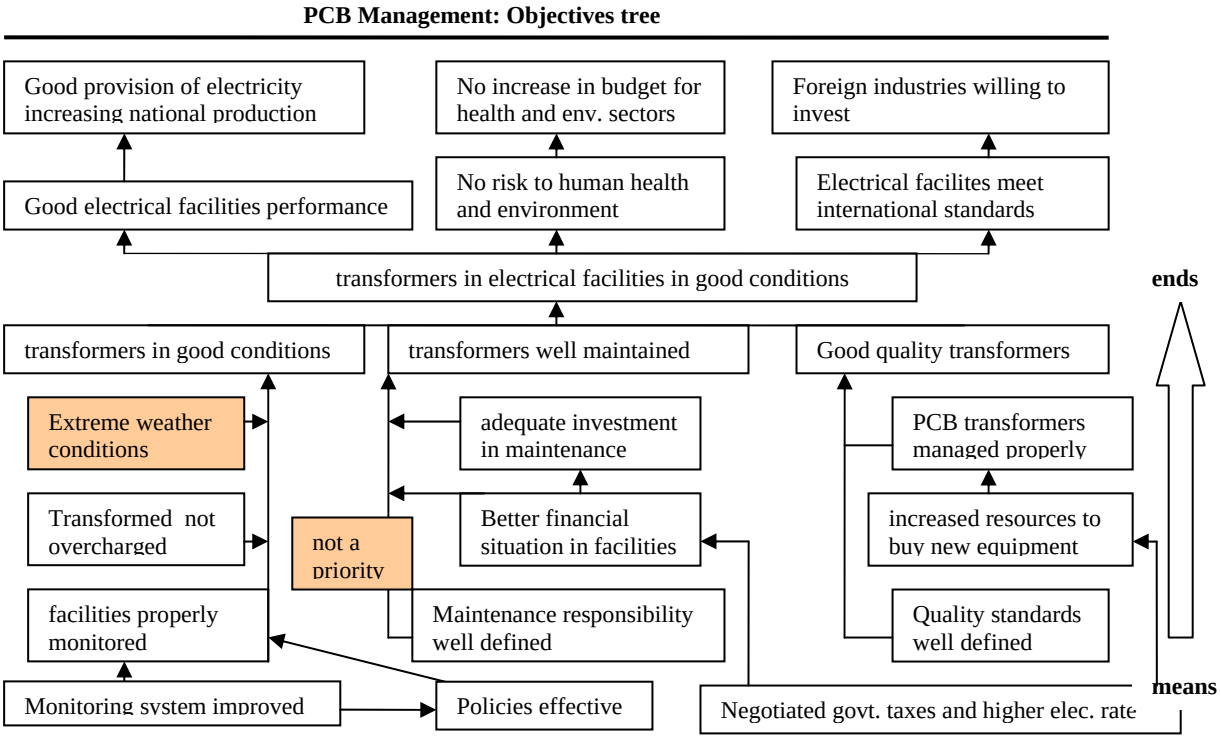
A problem tree at this level can be used to bring together information on the practices, risks and impacts of a sub-group of persistent organic pollutants in order to assess potential management options. A lower order problem tree can focus in on one aspect in more detail.

C7.2 How to Do an Objectives analysis

Step 1: After the Problem tree is agreed, the next thing to do is to reformulate the elements of the problem tree into positive desirable conditions. What was the focal problem now becomes a key objective. (In logical framework terms it may be the Goal or Purpose; discussed further in C8).

Step 2: Look for elements to use in strategic planning. Below what was the focal problem in the problem tree, are now related *objectives* for addressing the problem. Above what was the focal problem, if the problem were to be addressed one would expect to see changes in the effects, so in the options tree there will be useful ideas here for potential *indicators* of progress.

An example of an 'Objectives Tree' based on the above 'Problem Tree' is shown below:



C7.3 How to do a SWOT Analysis

Step 1: Set up a template. The SWOT analysis is normally presented as a grid, comprising four sections, one for each of the SWOT headings: Strengths, Weaknesses, Opportunities, and Threats.

SWOT Template

Strengths	**Weaknesses**
Opportunities	**Threats**

Step 2: The stakeholders brainstorm all the strengths, weaknesses, opportunities and threats of a course of action using the following question: What are the strengths and weaknesses of the activity/option? What opportunities and threats are coming up? Within these boxes can be the results of C6 – Cost Benefit Analyses, C1 - social and stakeholder analyses and any other tools used in the Socio-Economic Assessment. Thus the tool can help to finalise options before persistent organic pollutants reduction actions are finally planned.

Guide on terms:

- a *strength*, e.g. a skill or resource, can be used to do something successfully;
- a *weakness* makes successful action less likely;
- *opportunities* require action to be taken by the the national implementation plan team and possibly others, before benefits result; and
- *threats* will cause harm to the stakeholders unless action is taken.

Step 3: Review the lists, noting any evidence that the items listed really exist. Revise the lists by deleting any items you no longer think need to be included.

Step 4: Rank in order of importance the strengths you have listed. Indicate each item's ranking in the appropriate column (1 = most important, 2 = second most important, etc). Rank weaknesses, opportunities and threats in the same way.

C7.4 How to use Decision Matrices

The objectives immediately below the Focal Objective of the Objective Tree (C7.2) in effect summarise the Options.

Step 1: Agree with participants the criteria for assessing the various options. Key factors here could include[3]:

- Degree of fit with overall goals
- What are the expected benefits? To whom?
- What is the feasibility and probability of success?
- Risks and assumptions? Who is carrying the risk?
- Social criteria – costs and benefits, livelihood issues, socio-cultural constraints; who carries social costs
- Environmental criteria – what are the environmental costs and gains?
- Technical criteria – appropriateness, availability of resources, market factors
- Institutional criteria – capacity, capacity building, technical assistance
- Economic criteria – economic returns, cost effectiveness
- Financial criteria – costs, cashflows, financial sustainability, foreign exchange needs.

Step 2: Feed results into a summary action sheet such as the one produced below, which focuses on particular stakeholders and the alternatives based on an overall risk rating.

[3] Based on Sartorius, R. (Social Impact) in DFID *Tools for Development*

PERSISTENT ORGANIC POLLUTANTS ACTION SUMMARY SHEET

persistent organic pollutants Family/action	persistent organic pollutants obligation	Links to other government Policies and commitments	Long or short term	Funding support
Stakeholder group	Impact			
	Benefit	Costs	Level of risk	Mitigation alternatives
1. 2. 3. 4. 5. . 6.				

Step 3: Feed results of this table into a table such as the following one, which summarises all the options.

PERSISTENT ORGANIC POLLUTANTS SUMMARY DECISION SHEET

	persistent organic pollutants Action alternative	Long or short term	Stakeholders on whom action will impact negatively (including costs to government	How?	Mitigating measures	Stakeholders on which action will impact Positively	How?	Partners	Possible Funding from	Convent-ion reference	Links to other government policies and commitments	Score (?)
1												
2												
3												
4												
5												

C8 LOGICAL FRAMEWORK ANALYSIS

LOGICAL FRAMEWORK ANALYSIS

The logical framework, often abbreviated to logframe, is a highly effective and useful tool for organising a project or a group of activities around one common, single, purpose. This tool provides the basis for planning, monitoring and evaluating a persistent organic pollutants reduction programme. There are essentially 16 boxes which need to be developed. This is best done with a selection of key stakeholders – it should not be done in a room with consultants only.

Doing a logical framework help to:

- Take key stakeholders through a common process
- Provide a logic to the intervention which is easily understood
- Ensure projects are easily understood and assessed by funders/donors
- Feed in key important data from Socio-Economic Assessment
- Envision a future desirable situation
- Set up the monitoring and lesson learning agenda
- Analyse the potential of unintended outcomes and risks and assumptions not yet covered by other analyses

.*Start here* (NOT with the Activities!)

THE LOGICAL FRAMEWORK

Prior Steps *Use appropriate and proportionate processes before starting on the logframe itself* ***e.g*** *stakeholder, problem, objectives and options analyses.*

Step 1 Define the Impact / Goal
To what national or sector level priorities are we contributing? What long-term benefits on the lives of the poor will happen partly as a result of the project? Several interventions may share a common Goal.

Step 2 Define the Outcome
What immediate change do we want to achieve? Why is the intervention needed? How will others change their behaviour as a result of the use, uptake or implementation of the Outputs? How will development conditions improve on completion of the Outputs? Limit the Outcome to one succinct statement.

Step 3 Define the Outputs
What will be the measurable end results of the planned activities? What products or services will the project be directly responsible for, given the necessary resources?

Step 4 Define the Activities
What needs to be actually done to achieve the Outputs? This is a summary (not detailed workplan) showing what needs to be done to accomplish each Output.

Objectives	**Indicators / Targets**	**Data sources**	Assumptions
Impact			Outcome to Impact conditions
Outcome			Output to Outcome conditions
Outputs			Activity to Output conditions
Activities			Pre-conditions

Step 7 Re-check the design logic *e.g if the conditions are in place and we do the activities, will we deliver the Outputs? And so on up columns 1 and 4. Move on to Step 8 overleaf.*

Step 6d
With the Outcome achieved, what conditions are needed to contribute to the Impact / Goal?

Step 6c
With the Outputs delivered, what conditions are needed to achieve the Outcome?

Step 6b
With the Activities completed, what conditions are needed to deliver the Outputs?

Step 6a
What conditions need to be in place for the Activities to be done successfully?

Do a robust risk analysis.

At each level, identify risks by asking what can stop success. For each risk, evaluate its seriousness and probability; and identify mitigatory measures.
Manage the risks *by adding mitigatory measures planned within the project to Column 1 (mainly as Activities, possibly as an Output). The conditions that remain are the Assumptions in Column 4.*
Avoid mixing Assumptions and Risks.

Step 5 Check the vertical logic back up Column 1
Apply the If/then test to check cause and effect. <u>If</u> the listed Activities are carried out, <u>then</u> will the stated Output result? Is what is planned <u>necessary</u> and <u>sufficient</u>? Are we planning to do too much or too little? And so on up Column 1.

Step 6 Define the assumptions at each level
Do a robust risk analysis to determine the Assumptions in the project design.

Step 8 Define the Performance Indicators and Data Sources / Evidence

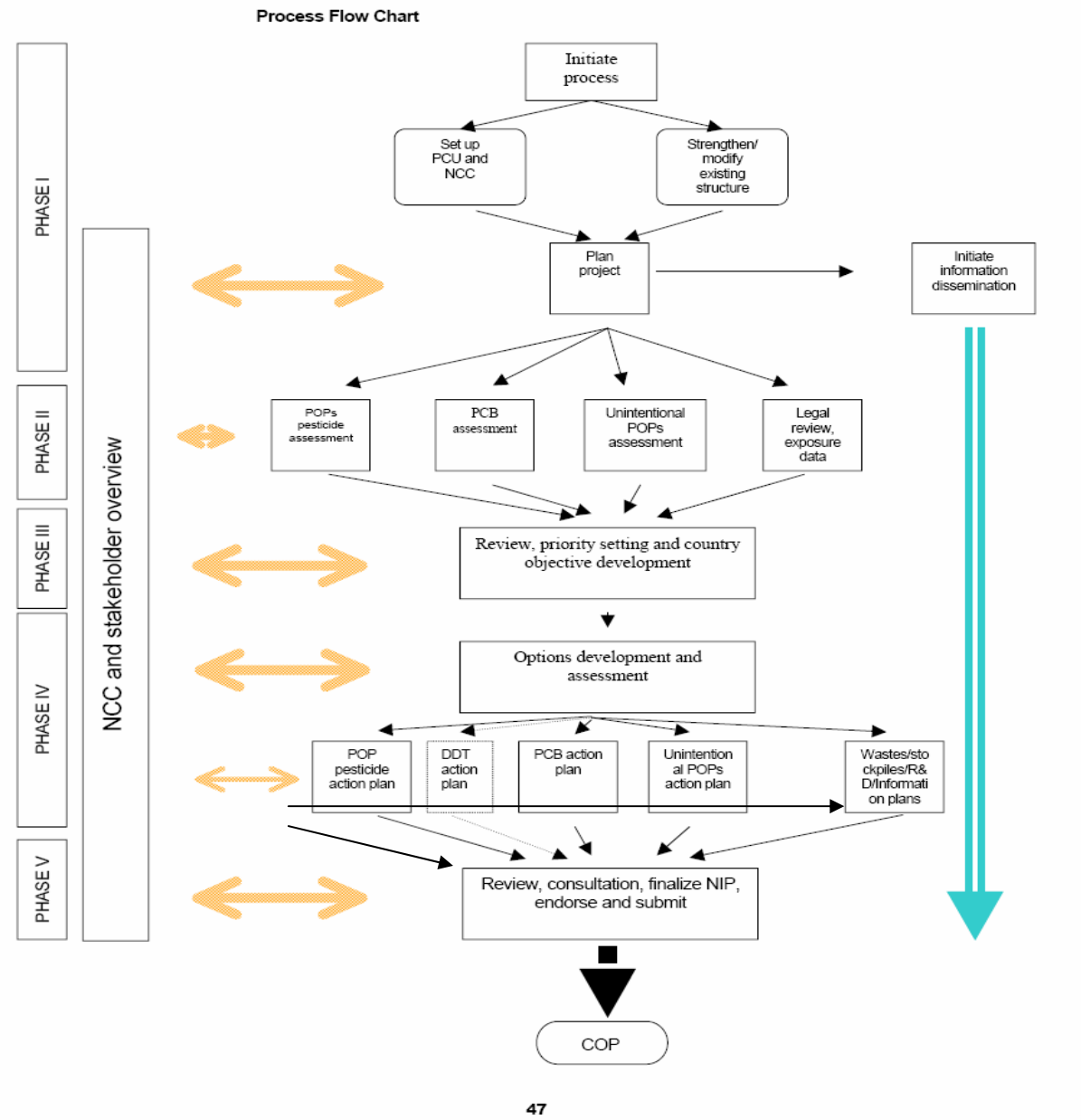
Complete both columns together

Indicators are means; Targets are ends. Start by defining Indicators; only set Targets when there is enough baseline data and stakeholder ownership. Set Indicators and Targets in terms of Quality, Quantity and Time.

Evidence is usually in the form of documents, outputs from data collection. Some reliable sources may already be available. Include data collection planned and resourced in the project as Activities in Column 1.

Objectives	Indicators / Targets		Data sources	Assumptions
Impact		***Step 8a Impact indicators / targets*** *What will indicate the impact changes that are happening / will happen to which the project has contributed? Include changes that will happen during the lifetime of the project, even if only early signs.*	***Step 8a Impact data sources*** *What evidence will be used to report on Impact changes? Who will collect it and when?*	
Outcome		***Step 8b Outcome indicators / targets*** *At the end of the project, what will indicate whether the Outcome has been achieved? This is the key box when the project is evaluated on completion.*	***Step 8b Outcome data sources*** *What evidence will be used to report on Outcome changes? Who will collect it and when?*	
Outputs		***Step 8c Output indicators / targets*** *What will indicate whether the Outputs have been delivered? What will show whether completed Outputs are beginning to achieve the Outcome? These indicators / targets define the terms of reference for the project.*	***Step 8c Output data sources*** *What evidence will be used to report on Output delivery? Who will collect it and when?*	
Activities		***Step 8d Activity indicators / targets*** *What will indicate whether the activities have been successful? What milestones could show whether successful Activities are delivering the Outputs? A summary of the project inputs and budget will also be one(but not the only) entry here?*	***Step 8d Activity data sources*** *What evidence will be used to report on the completion of Activities? Who will collect it and when? A summary of the project accounts will be one (but not the only) entry here.*	

Annex A



Ref: http://www.pops.int/documents/implementation/National Implementation Plans/guidance/guidances/docdirec_en.pdf)

REFERENCES AND BIBLIOGRAPHY

Anglo American – Socio-Economic Assessment Manual

Anglo-American (2003) Socio-Economic Assessment Toolbox, Anglo-American, UK

Anderson, M.B. and Woodrow, P.J. (1998) Rising from the ashes: development strategies in times of disaster, ITDG Publishing, London, UK

EPA (2004) Toolkit for Assessing Potential Allegations of Environmental Injustice, United States Environmental Protection Agency, USA

EPA (2003) Beyond RCRA; Waste and Materials in the year 2020, United States Environmental Protection Agency, USA

Feng, H and Swann, I. (1998). Responsible Care and persistent organic pollutants management by industry. Accessed on 23.10.06 at http://www.chem.unep.ch/pops/pops_inc/proceedings/bangkok/rampy2/sld013.htm

Frank, R and Sunstein, C (2001) Cost-Benefit Analysis and Relative Position, *University of Chicago Law Review*, Vol. 68, No. 2, Spring 2001, pp. 323–374.

Hussen, Ahmed (2004) *Principles of Environmental Economics, 2e*. New York, NY: Routledge

King, D and Mazzotta, M (undated) Ecosystem Valuation*, http://www.ecosystemvaluation.org/, accessed on 17th October, 2006*

Lambert, A (2006) Payment for Environmental Services: Some Thoughts, Conservation Finance Alliance, Vol 2 Number 2

National Centre for Environmental Decision Making Research (NCEDR) (2006) NCEDR Interactive*, http://www.ncedr.org/default.html, accessed on 19th October, 2006*

OECD (1999) Guidance for Conducting Retrospective Studies on Socio-Economic Analysis, OECD Environmental Health and Safety Publications, No 11, Paris: Organisation for Economic Co-operation and Development.

OECD (1999) Indicators for the Second Cycle of Environmental Performance Reviews; Discussion Paper, OECD Working Group on the State of the Environment, Paris, France

OECD (2000) FRAMEWORK FOR INTEGRATING SOCIO-ECONOMIC ANALYSIS IN CHEMICAL RISK MANAGEMENT DECISION MAKING OECD Environmental Health and Safety Publications, Series on Risk Management No. 13,Paris, France

Pearce, D (1998) Cost Benefit Analysis and Environmental Policy, *Oxford Review of Environmental Policy*, Vol. 14, No. 4.

Provention Consortium (2004) Measuring Mitigation – Methodologies for assessing natral hazard risks and the net benefits of mitigation – a scoping study, Provention Consortium, Geneva, Switzerland

Sartorious, R (Ed) 2000. Tools for Development. DFID. London

Sunstein, C (2000) Cost-Benefit Default Principles, *Working Paper* 00–7, Washington, DC: AEI-Brookings Joint Center for Regulatory Studies, October 2000.

Turner, R. (1993) *Environmental Economics: An Elementary Introduction*, Baltimore, MD: Johns Hopkins University Press.

UNEP (2001) Stockholm Convention on persistent organic pollutants (persistent organic pollutants) – text and annexes, UNEP, Switzerland

UNEP(2001) Ridding the world of persistent organic pollutants: a guide to the Stockholm Convention on persistent organic pollutants

UNEP (2002) PIC –Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade – text and annexes – UNEP, Switzerland

UNITAR(2004) Thematic workshop on synergies for capacity building under international agreements addressing chemicals and waste management, Final Report October 2004, UNITAR, Switzerland

UNITAR (2006) Action Planning Guidance Notes

Voorhees, A; Sakai, R; Araki, S and Sato, H (2001) Cost-Benefit Analysis Methods for Assessing Air Pollution Control: Programs in Urban Environments — A Review, *Environmental Health and Preventive Medicine* No. 6, 63-73.

Watkins, T (undated) An Introduction to Cost-Benefit Analysis, San Jose State University, *http://www.sjsu.edu/faculty/watkins/cba.htm, accessed on 17th October, 2006*

Winpenny, J (1991) Values for the Environment: A Guide to Economic Appraisal. London: Overseas Development Institute, Her Majesty's Stationery Office.

World Bank PSIA Manual

World Bank/ICCM SE Manual