Integrated Assessment and Planning for Sustainable Development

Guidelines for pilot projects

Version 1
March 2004
Table of contents

1. Introduction
   Purpose of this document
   Objectives of the UNEP initiative
   Key elements of a planning process
   Principles of integrated assessment and planning for sustainable development

2. Key tasks in pilot projects

3. Framework for preliminary review of the planning process
   How to use the framework to design pilot projects
   Reporting and possible follow-up on the self-assessment
   Tools and methods for integrated assessment and planning for sustainable development

Annex 1: Format for undertaking a preliminary assessment, with examples for Element 2 of the planning process

Annex 2: Tools and techniques for integrated assessment and planning

Annex 3: Evaluating the effectiveness of integrated assessment
Key points

- Select and describe a relevant planning process
- Review the planning process to define priority improvements
- Identify the key stakeholders and opportunities for their participation
- Scope the key substantive issues and their sustainability implications
- Identify the approach or methodology to address the issues identified
- Use appropriate tools to obtain required information and engage stakeholders
- Relate inputs to the needs of decision-making
- Learn-by-doing, and evaluate benefits for all parties involved

Role of UNEP

- Initiate and support integrated assessment and planning projects
- Provide resource materials, advice, training and backstopping
- Share lessons and experiences
- Help draw relevant conclusions for wider application

Focus of UNEP projects

- On environment, poverty and trade within a sustainability framework
- On existing planning processes at regional or national level
- On planning processes with national importance, scope for improvement and multi-stakeholder involvement

Expected outputs

- Process: Improved planning process
  Collaboration between stakeholders
  Improved commitment by stakeholders for follow-up
  Capacity building of institutions
- Substance: Improved quality of information
  Improved integration of sustainability issues in the plan
  Stronger policy linkages
- Lessons: Lessons on IAP approach
  Lessons on tools to apply within IAP
  Lessons on UNEP support
1. Introduction

Purpose of this document
This document provides guidance on how the UNEP-supported pilot projects on integrated assessment and planning for sustainable development may be taken forward. It describes key tasks and issues that will need to be addressed, and it suggests an approach that starts out from a self-assessment of an existing planning process which can be used to identify strengths and weaknesses, and then sets priorities on what a country team may wish to deal with as part of the UNEP pilot project. Using a self-assessment approach can also be used to bring together stakeholders and thus build commitment and common understanding at an early stage of the project. This document also proposes some tools and methods that can be applied to implement the pilot project, following the self-assessment. This is a working document, prepared to facilitate a timely start to implementation of the project. As such, it will be further developed, based on the lessons learned from its application within the pilot projects.

Objectives of the UNEP initiative
This UNEP project aims to strengthen and improve existing plans and planning processes in support of sustainable development. It will do so by undertaking an integrated assessment of critical issues and linkages in relevant areas of poverty, trade and the environment. This process itself will be undertaken as part of the formal planning approach of the country concerned. It is also expected to reinforce specific policy initiatives being taken to develop and implement sustainable development strategies or equivalent frameworks, consistent with the approach outlined in the WSSD Plan of Implementation. This project aims to strengthen existing and ongoing sustainable development initiatives by their integration into relevant and concrete planning processes.

Expected benefits of undertaking this project initiative may include the following:
• Strengthening of sustainable development policies and their implementation
• Building commitment and core competencies to undertake integrated assessment
• Facilitating good governance and institution-building
• Saving time and money by developing a coherent integrated development approach
• Strengthening experiences and application of participatory planning.

Key elements of a planning process
This guidance document describes the proposed approach to integrated assessment and outlines how it may be keyed to a generalised sequence of key planning elements and tasks, which are usually present (in one form or another) in most countries, and widely recognised as sound planning practices (see Table 1). It is recognised that specific planning processes in any country may follow slightly different logic, may apply a different sequence of elements, or that individual planning elements may be more detailed, may be missing, etc.¹ It is also evident that the elements of the planning process may not occur in the linear sequence as presented (indeed they should be applied in an iterative fashion by planning teams as the plan unfolds). Equally critically, it is expected that the key planning elements will be creatively adapted to the issues and circumstances of the country. As described here, the proposed framework should be read as a reference framework for the proposed approach to integrated assessment; it is an explanation not a prescription.

¹ Each specific planning process has unique features. Even if the planning process occurs within the same planning framework or applies the same planning logic (such as PRSPs, land-use planning, watershed management, etc.) it always operates in specific institutional settings, addresses locally relevant issues or adopts different arrangements for transparency and participation.
Table 1: Generalised sequence of planning elements and tasks

<table>
<thead>
<tr>
<th>Elements and tasks of a planning process</th>
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<tbody>
<tr>
<td><strong>1. Initiation</strong></td>
</tr>
<tr>
<td>• Rationale, need and purpose (why is this process being initiated)</td>
</tr>
<tr>
<td>• Design of the planning process (what is the approach and authorisation)</td>
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<tr>
<td><strong>2. Analysis</strong></td>
</tr>
<tr>
<td>• Commitments and obligations with regard to environment and sustainability</td>
</tr>
<tr>
<td>• Identification and analysis of issues, trends, problems, opportunities and linkages</td>
</tr>
<tr>
<td>• Identification of sustainability goals, principles and indicators</td>
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<tr>
<td>• Policy and institutional analysis</td>
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<tr>
<td><strong>3. Design of strategy / strategic planning</strong></td>
</tr>
<tr>
<td>• Defining a vision, goals and objectives</td>
</tr>
<tr>
<td>• Defining priority areas / win-win policy options for intervention</td>
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<tr>
<td>• Taking into account sustainability considerations (spatial and temporal trade-off)</td>
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<tr>
<td><strong>4. Design of actions / operational planning</strong></td>
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<tr>
<td>• Design and appraisal of specific solutions / activities</td>
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<tr>
<td>• Setting priorities to minimise harm and enhance benefits</td>
</tr>
<tr>
<td>• Rules for clarifying and making the trade-offs</td>
</tr>
<tr>
<td><strong>5. Implementation and monitoring</strong></td>
</tr>
<tr>
<td>• Implementation arrangements (organisation, funding)</td>
</tr>
<tr>
<td>• Defining a monitoring system with sustainability indicators</td>
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</tbody>
</table>

In many cases the planning process is driven by an economic development focus. Traditionally, impact assessment has looked into the impacts of implementing a prescribed plan on the environment and communities (including poverty, gender, culture and related issues), and its participatory and capacity building aspects. Such assessments primarily aim to improve the proposed plan by identifying, mitigating or compensating measures or flanking policies that in most cases are applied late in the planning process. This approach has been repeatedly criticized for the past two decades as relatively ineffective, addressing only the symptoms rather than the sources of environmental deterioration and unsustainable development. Fifteen years ago, the Brundtland Commission called for environmental considerations to be addressed early in the decision-making process, at the same time and on par with economic and social factors, noting this was ‘the chief institutional challenge of the 1990s’. It remains outstanding still.

**Principles of integrated assessment and planning for sustainable development**

The current initiative by UNEP aims to promote a more proactive, integrative approach to planning and assessment, based on the elements and tasks described above. Specifically, this approach is intended to achieve both the substantive and procedural integration of assessment and planning:

1. Substantive integration of environmental, social and economic objectives (analyses and issues), of proposed development interventions and policy options, examined against an explicit framework of sustainability goals, principles and criteria (see Box 1).
2. Procedural integration of assessment procedures (analysis, tools of environmental, social and economic dimensions) within the larger process of sustainable development planning and decision-making, in order to achieve maximum synergy between them and to avoid delays and conflicts.

Both substantive and procedural integration aim to avoid negative trade-off as well as strengthen positive interactions (realise opportunities for synergy) between environmental, social and economic issues, in a broad spatial and time perspective.
Box 1: Aspects of integration and sustainability

The substantive integration of the environmental, social and economic pillars of sustainable development is a difficult and challenging task, which is now the subject of much literature and, more recently, policy experimentation. UNEP (2001) has been at the forefront of the latter, notably with its methodology for integrated assessment of trade issues. Other initiatives, particularly the approach of the World Commission on Dams (2002), focus attention on the pre-conditions for reconciling issues and making trade-offs among the three dimensions of sustainable development and seeking opportunities for synergy and mutual accommodation of interests.

In this context, sustainability may be seen as adding a layer of normative values that provides direction to processes of change, and as such also in the trade-off considerations when dealing with integrated (environmental, social and economic) impacts. Sustainability involves both bottom-line standards (norms not to surpass) and goals (norms to strive for). From this normative perspective, sustainability refers to the environmental, social and economic assets that stakeholders want to maintain for future generations. There may be different levels of sustainability, from weak to strong, which are defined by the extent to which natural capital is accepted as being transferable or substitutable by economic capital, and the risks related to threshold values. Ultimately, this is a matter of value-based choice that will vary from society to society and between rich and poor countries.

A disciplined approach requires, inter alia, that evaluation and subsequent trade-offs are made against an explicit framework of goals, objectives, rules, principles and indicators that facilitate informed judgement as to whether or not proposed actions support or detract from sustainability (as defined by a particular country or community). In particular, the latter notion must be defined in terms of standards necessary for the three bottom lines of environmental capacity, social equity and economic feasibility to be met by a proposed policy, plan or action. Both spatial trade-offs (between here and there) and temporal trade-offs (from now to later) can be examined using these reference points of sustainability. In a global context, the crucial balance is to achieve greater intra-generational equity between developed and developing countries without undermining inter-generational equity.

The approach to integrated assessment proposed by UNEP is based on a notion of ex-ante assessment that examines adequacy of planning documents and relevant conclusions in each element of the planning process. The ex-ante evaluation is an interactive process providing judgement and recommendations by reviewers, separately from the planners, on policy or programme issues. The purpose of ex-ante assessment is to ensure proper consideration of environmental, social and economic issues in each element of the planning process and to suggest improvements for the final quality of the plan or programme under preparation. In this regard, this evaluation work has to facilitate a constructive dialogue between the people responsible for a plan or programme and the reviewers. Of course, public authorities have the ultimate responsibility for the contents of the final outcomes.

Capacity building and principles of good governance

UNEP also considers the projects on integrated assessment for sustainable development as a means to enhance capacities and strengthen good governance. Principles of good governance are generally considered to be:

1. Equitable participation by all relevant stakeholders
2. Legitimate local ownership
3. Access to information and transparency
4. Accountability, respect of rules and regulations.

The process of capacity building starts out from the initial formulation of the MoU between UNEP and the country teams undertaking projects on integrated assessment and planning for sustainable development, and continues during the design, implementation and evaluation of the project. During this process, UNEP will carefully seek opportunities to strengthen and emphasise principles of good governance, such as:

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- Respect and take as a starting point existing policies and ongoing initiatives on sustainable development and integrated planning;
- Ensure participation by relevant stakeholders, including non-governmental organisations and under-privileged social groups;
- Ensure that participation occurs in the sense of exchange on an equal basis rather than only consultation;
- Access to results of the project and possibilities to provide feedback for all relevant stakeholders;
- Implementation and respect of national and international agreements and policies (e.g. on sustainable development);
- Respect and bring to the foreground local rights and ownership issues, such as access to land and resources by indigenous communities.

UNEP considers attention to these issues as a gradual and continuous process of improvement, and not as a rigid recipe to be imposed. As such, the current round of projects should be seen as one element in a continuum of national and international efforts to strengthen capacities and good governance.

**UNEP framework**

Taking into account these considerations, a general framework for integrated ex-ante assessment for sustainable development emerges and will be used by UNEP within this project (Figure 1). It summarises the main issues discussed above. In it, planning, assessment and evaluation are conceived as cyclical - its cycle corresponding to the life cycle of the concerned strategic intervention.

Figure 1: Framework for integrated assessment of planning processes in support of sustainability

<table>
<thead>
<tr>
<th>Elements of planning process</th>
<th>Environmental, social and economic impacts and issues</th>
<th>Trade-off, synergy against sustainability reference points</th>
<th>Good governance issues and criteria of a sound process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initiation</td>
<td></td>
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<td></td>
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<tr>
<td>2. Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Design of strategy / strategic planning</td>
<td>Environmental, economic and social impact assessment</td>
<td>Sustainability goals, principles, standards, indicators</td>
<td>Participation, transparency, accountability, ownership</td>
</tr>
<tr>
<td>4. Design of actions / operational planning</td>
<td></td>
<td></td>
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<tr>
<td>5. Implementation and monitoring</td>
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</table>

UNEP aims to apply the above framework to strengthen a selected existing planning process through full integration of environmental, social and economic assessments by its focus on sustainability issues, and by assuring that the entire planning process is sound. The UNEP programme on integrated assessment focuses on aspects of trade, poverty and environment, and their interrelations. Thus, referring to the above framework, the social dimension should include consideration of poverty and health, the economic dimension should consider trade-related issues. The environmental dimension takes into account all environmental resources, products and services, as well as biodiversity aspects.

The pilot projects to be undertaken will generate insight into more specific and critical principles to take into account when undertaking integrated assessment of planning processes in support of sustainability. As the projects unfold, these principles will be identified and highlighted.
2. **Key tasks in pilot projects**

The following sequence of tasks is proposed in order to carry out integrated assessment within the selected planning process:

- **Preliminary review of the planning process.** It is suggested to analyse and review the selected planning process to obtain insights into its structure and logic, the key issues that are being considered, the timeline and the arrangements for stakeholder participation. Such a review will reveal areas for possible improvement of the planning process, mainly on sustainability issues and process principles. When undertaking this review, countries are encouraged to use the proposed framework for preliminary review as outlined in the following section.

- **Design of improvements in the planning process.** Review of the planning process provides a starting point for deciding upon its enhancement, and the tools or methods to be used to this effect. Improvements can be suggested either on treatment of substantive issues (e.g. identification and addressing the root causes of unsustainable resource use) or in terms of the planning process (e.g. improved arrangements for stakeholder engagement and inter-institutional consultations). When proposing improvements, countries may utilise methods which have already been used or tested in planning and assessment processes in the country, and/or use tools and methods as outlined in the Annex 2 to this document. UNEP is not biased toward any individual tool or method, as long as the selected tools and methods adequately address the gaps and weaknesses of the planning process that have been identified within its preliminary review, and are aimed at strengthening the sustainability focus of the plan.

- **Pilot projects and evaluation of lessons learned.** Feasibility and effectiveness of the proposed assessment tools to improve the plan and the planning process will be tested during the undertaking of the pilot project. The effectiveness and adequacy of the proposed assessment tools will be reviewed with key stakeholders involved in the planning process. The review may be based on a review framework provided by UNEP (to be provided later). The expected outcomes of an enhanced planning process are: increased sustainability, improved commitment and stronger policy linkages. Refer to Annex 3 for more details.

The next section proposes a framework and some guidance to undertake a preliminary review of the selected planning process, and on the basis of that establish a working plan on how to improve the existing plan and planning process.

3. **Framework for preliminary review of the planning process**

*The framework*

The below framework, with questions per each planning element, are meant to facilitate the proper treatment of environmental, social and economic sustainability issues and their relationship, as well as principles of governance like transparency and participation. The framework is based on the generalised elements of the planning process as defined in Table 1, with all the reservations as outlined in the accompanying text.

Countries are advised to use the framework by adopting a self-assessment approach, whereby key stakeholders are invited to join. This initiates and strengthens a participatory process.

Before undertaking the preliminary review, countries may wish to determine which planning elements are represented in the given planning process. After this, they may use the questions per each planning element to analyse the existing strengths, weaknesses and gaps, and determine the priority areas for improvement.
<table>
<thead>
<tr>
<th>Elements of planning process</th>
<th>Questions to check sustainability considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Initiation</strong></td>
<td><strong>Process:</strong></td>
</tr>
<tr>
<td>• Decision on purpose</td>
<td>• Is it clear who has initiated the planning process, how will the plan be drawn up and who is the decision-maker?</td>
</tr>
<tr>
<td>• Design of the planning process</td>
<td>• Does the planning initiative build on previous experiences and take into account relevant plans and planning processes? What is the hierarchy of the plan in relation to other sectoral or territorial plans, programmes or policies?</td>
</tr>
<tr>
<td></td>
<td>• Is it clear who are the key authorities (at all relevant levels or sectors) and key stakeholders (including marginalised groups) that are expected to participate in the process? Are authorities responsible for sustainability policies involved?</td>
</tr>
<tr>
<td></td>
<td>• Is the planning process transparent? Have the key authorities and stakeholders been adequately informed of the initiative?</td>
</tr>
<tr>
<td></td>
<td>• Can key authorities and stakeholders influence the design of the planning process to fit their needs for proper involvement?</td>
</tr>
<tr>
<td></td>
<td>• Are there sufficient human and financial resources available to ensure adequate participation of key authorities and stakeholders during the planning process?</td>
</tr>
<tr>
<td><strong>Substance</strong></td>
<td>• Is the overall purpose of the planning process clear?</td>
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<tr>
<td></td>
<td>• Is the planning process sufficiently open to consider sustainability aspects?</td>
</tr>
<tr>
<td></td>
<td>• Does the planning team dispose with sufficient expertise on environmental, social and economic issues? Is there expertise on sustainability issues?</td>
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</table>

| **2. Analysis**             | **Process:**                                     |
| • Sustainability commitments| • Have all information sources about relevant issues been identified, and used? Has local / indigenous knowledge been adequately gathered and used? |
| • Identification and analysis of current situation | • Has an overview been provided of sustainability commitments (policies, strategies), both national and international? Are advances made in its implementation clear, particularly for the sector/region being analysed? |
| • Sustainability goals and indicators | • Have key authorities and stakeholders (including marginalised groups) been actively informed and involved? Are sustainability concerns based on stakeholder views? |
| • Institutional analysis    | • Can the public influence the analysis? (Has the public been informed of the results? Is there room for public feedback and for its due account?) |
| **Substance**               | • Are key issues (environmental, social and economic) identified for the sector / region concerned? Is it clear which of these are key sustainability concerns? |
|                             | • Are past and present trends of these key issues and their mutual interlinkages assessed? |
|                             | • Has an inventory been made of available principles, standards and indicators to assess sustainability? If not, what reference framework is being used to assess sustainability? |
|                             | • Using trends and sustainability standards, are the most important sustainability problems identified? Are winners and losers of these problems identified? |
|                             | • What are the root causes of these problems (including relations with other sectors)? Are the institutions / actors responsible for these root causes identified? What makes them act as they do? |
|                             | • Which (environmental, social, economic) trends or promising initiatives currently exist and offer opportunities for more sustainable development? |
|                             | • Have competencies of relevant institutions and effectiveness of their cooperation been analysed? |

<p>| <strong>3. Design of strategy / strategic planning</strong> | <strong>Process:</strong>                                     |
| • Defining a vision and goals | • Have key authorities and stakeholders (including marginalised groups) been informed and actively involved? Are authorities responsible for sustainability policies involved? |
| • Priority areas for intervention / policy | • Can the public influence the proposed vision and strategy? (Has the public been informed of the results? Is there room for public feedback and for its due account?) |</p>
<table>
<thead>
<tr>
<th>options</th>
<th>Substance:</th>
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</table>
| Sustainability considerations | • Has a vision for long-term sustainable development of the sector/region been defined (providing guidance to design and selection of relevant interventions)?  
• Have goals and objectives\(^2\) been defined to divert the key negative trends/problems and to stimulate long-term positive trends/potentials? Are the goals consistent with the vision? Are they internally (mutually) consistent? Are goals and objectives measurable (SMART)?  
• Are the set goals consistent with sustainability goals and standards? More specifically, is there insight in temporal trade-off between short-term objectives and sustainability goals? And is there insight in spatial trade-off between proposed activities in the region and sustainability goals elsewhere?  
• Have priority areas of intervention (policy options) been defined to realise the goals and objectives? Are these based on existing opportunities and win-win options?  
• Are policy options based on different scenarios that enable achievement of proposed goals and objectives? |

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<tr>
<th>4. Design of actions / operational planning</th>
<th>Process:</th>
</tr>
</thead>
</table>
| • Design and appraisal of interventions  
• Setting priorities  
• Rules for trade-off | • Are procedures for defining activities and priority setting clear and transparent?  
• Have key authorities and stakeholders (including marginalised groups) been informed and involved?  
• Can the public influence operational planning? (Can public obtain information and provide feedback? Are there sufficient mechanisms to take due account of the feedback?) |

<table>
<thead>
<tr>
<th>Substance:</th>
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</table>
| • Are proposed interventions consistent with the goals and objectives? Are interventions based on existing or future potentials and opportunities? Have most effective interventions been selected, i.e. those that achieve attainment of multiple objectives?  
• Are the detailed positive and negative (environmental, social and economic) impacts of the proposed interventions known? Have mitigation and compensation measures (including flanking policies) been identified for negative impacts?  
• Are the proposed interventions still consistent with sustainability goals? Are the operational rules for dealing with trade-off (sectoral, spatial, temporal) clear? For instance, are there standards or principles available to judge trade-off? |

<table>
<thead>
<tr>
<th>5. Implementation and monitoring</th>
<th>Process:</th>
</tr>
</thead>
</table>
| • Implementation arrangements  
• Sustainability indicators  
• Monitoring system | • Are key authorities and stakeholders (including marginalised groups) involved in the design of implementation arrangements?  
• Are sufficient capacities and resources available for implementation and monitoring?  
• Will all progress reports and monitoring reports be available to the public?  
• Is there a clear time span including review and updates? |

<table>
<thead>
<tr>
<th>Substance:</th>
</tr>
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</table>
| • Have organisational arrangements been made, including identification of strategic partners (including private sector)? Have funding arrangements and mechanisms been identified, from different sources, to finance implementation of the plan?  
• Is it clear how new opportunities will be identified during implementation to define new intervention areas in line with set goals and objectives?  
• Has a monitoring system been established aimed at measuring both performance (of reaching objectives) and effects/impacts (of attaining set goals)?  
• Have sustainability indicators been selected to measure impacts on key sustainability issues relevant for the sector/region concerned?  
• Has a realistic and feasible monitoring system been defined? Will monitoring results be used to adjust, update and/or review the plan? |

\(^2\) A distinction is being made between goals (of a strategic nature, with long-term validity of say 5-10 years) and objectives (of operational nature, with short- and medium-term validity of up to 5 years).
How to use the framework for design of pilot projects
Following are some guidelines on how country teams may use this framework:

- The questions are used to check on sustainability issues of the selected (past and ongoing) plan and planning process, or preferably as guidance for a new planning process.
- The questions are used to identify strengths, weaknesses and gaps in the plan and planning process. Priorities are then set for improvements where weaknesses and gaps are identified.
- Selective use can be made of the questions and the outcomes, as it might be best to focus limited resources on certain priority issues.
- To fill gaps and overcome weaknesses, use can be made of tools and techniques existing in the country and/or as proposed in this paper.
- The preliminary assessment may be undertaken as a self-assessment, by a team involving key stakeholders. It might be useful to involve an external facilitator or experts to provide advice.
- In case participants have doubts or different opinions about the outcomes of a question, this should be properly documented.

As part of the preliminary assessment, participating authorities and stakeholders are also advised to think about how success of the integrated assessment and planning pilot project will be determined. In other words, what are the success factors or indicators to show whether the pilot project has been successful in advancing sustainable development in the sector/region concerned? Since countries will be asked to review the effectiveness of the integrated assessment, Annex 3 has been added to outline possible basic questions that may be asked in the interim and final evaluation of the pilot project.

Reporting and possible follow-up on the self-assessment
The preliminary assessment may result in a brief report established by the country team, covering the following subjects:

1. Information on the selected plan and planning process being assessed. Details to be provided may include: the regulatory framework, the elements of the plan, the main authorities and agencies involved, the institutional level (national, regional, local), the sectors that have been involved, the geographical coverage, whether the integrated assessment is *ex-ante* or *ex-post*, other plans or planning processes relevant to the selected plan.
2. The participants that were involved in undertaking the preliminary assessment.
3. The outcomes of each question, or for selected questions: strengths, weaknesses or gaps. Also to be noted are where there are doubts or different opinions. Set priorities on the basis of clear arguments. A format is proposed in Annex 1.
4. Tools, techniques and/or approaches proposed to deal with (selected/priority) weaknesses and gaps, including stakeholders to be involved. Annex 2 lists some methods and techniques that the IA team may apply to improve treatment of substantive issues or management of the planning process.
5. A plan of activities to improve the plan and planning process on identified weaknesses and gaps by using selected tools (including time line, milestones, responsibilities and budget).

Tools and methods for integrated assessment and planning for sustainable development
Annex 2 lists some methods and techniques that the IA team may apply to improve treatment of substantive issues or management of the planning process. Methods listed in Annex 2 have already been used in certain planning and assessment processes dealing with poverty and environment. The proposed methods are not exhaustive or prescriptive. Each IA team will be invited to select tools and techniques that most appropriately respond to the nature of specific planning process. UNEP is not biased towards any individual technique or method as long as the selected tools and techniques adequately address the gaps and weaknesses of the planning process that have been identified during its preliminary review.
Annex 1: Format for undertaking a preliminary assessment, with examples for Element 2 of the planning process

<table>
<thead>
<tr>
<th>Questions for preliminary assessment – Element 2</th>
<th>Outcomes</th>
<th>Comments</th>
<th>Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Have key authorities and stakeholders (including marginalised groups) been actively informed and involved?</td>
<td>Weakness: Marginalised groups were not involved, not were national authorities.</td>
<td>There was some discussion on which are the marginalised groups. Opinions differ.</td>
<td>Priority. With the next point, marginalised and national authorities should be informed and given time for feedback.</td>
</tr>
<tr>
<td>• Can the public influence the analysis? (Has the public been informed of the results? Is there room for public feedback and for its due account?)</td>
<td>Weakness: Above groups were not informed. There was no possibility for feedback. There was merely a one-way flow of information.</td>
<td>Consensus</td>
<td>Not a priority. It will take too much time.</td>
</tr>
<tr>
<td>• Have relevant information sources about relevant issues been identified? Has local / indigenous knowledge been adequately gathered and used?</td>
<td>OK: Adequate for formal information sources. Gap: No use of local knowledge.</td>
<td>Consensus</td>
<td>Priority. Must be adequately done. Will take time.</td>
</tr>
<tr>
<td><strong>Substance:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are key (environmental, social and economic) issues that determine current sustainability in the sector/region identified?</td>
<td>Weakness: Not adequately, although basic information is available.</td>
<td>Consensus</td>
<td>Priority. Must be adequately done for all key issues, but will take time</td>
</tr>
<tr>
<td>• Are past and present trends of these key issues and their mutual interlinkages assessed?</td>
<td>Weakness: Only for a limited number of issues trends are given in a qualitative way.</td>
<td>Consensus</td>
<td>Priority. Is just a matter of structuring existing information?</td>
</tr>
<tr>
<td>• Which are useful positive trends, potentials and opportunities (environmental, social, economic)? Have promising initiatives been identified? Can these be enhanced to tackle problems?</td>
<td>Weakness: Not specifically, but the information is certainly available.</td>
<td>Consensus</td>
<td>Not a priority.</td>
</tr>
<tr>
<td>• Which are the most important (environmental, social, economic) negative trends / problems? Are winners and losers of these problems identified?</td>
<td>Gap: Winners and losers were not identified.</td>
<td></td>
<td>Priority. Can be easily done.</td>
</tr>
<tr>
<td>• What are the root causes of problems (including relations with other sectors)? Are the institutions / actors responsible for these root causes identified?</td>
<td>Strength: Root causes are known, but documented in a scattered way. Gap: Responsible actors are missing.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 2: Tools and techniques that can be applied in integrated assessment and planning

The tools presented in this Annex are classified per planning element, but this classification is only indicative. The following tools are provided:

Element 1: Initiation
Element 2: Analysis
Element 3: Strategic planning
Element 4: Operational planning
Element 5: Implementation and monitoring

Element 1: Initiation

Tool 1-1: Stakeholder analysis and mapping

Aims: To map stakeholders, i.e. those with primary (direct) and secondary (indirect) interests in the planning process, analyse their interrelations and power relations and set priorities for their involvement in the planning/assessment process.

Guidelines:
1. Determine which stakeholder groups are directly affected and which are interested in the current development patterns and the proposed interventions. Consider:
   - Their interests in the planning process and sector involved
   - Different positions along the product chain (producers, traders, consumers, etc.)
   - Local, regional, national and international levels
   - Government, civil society and the private sector.

2. Determine which stakeholder groups would fall within the category of marginalised groups that need to receive special attention. Box 1-1.1 outlines the most common categories of marginalised groups.

3. Indicate interrelations between stakeholders, and type of relationship (e.g. legal / contractual, market, information exchange, interpersonal, power, ..). Indicate which stakeholders appear to have mutual or conflicting interests. You can either briefly describe their dependencies or interests or you can make a visual presentation of these relationships, for instance form of a matrix (see Box 1-1.2).

4. Define the key stakeholders for targeted involvement. Box 1-1.3 offers a possible method for definition of key stakeholders which uses the following criteria:
   - stakes / interests in the planning process and its substance
   - formal position or power with respect to the planning substance
   - poverty status and dependency on the sector.

Box 1-1.1: Categories of usual marginalised groups
- Poor groups (e.g. forest dwellers, pastoralists in arid regions, farmers in remote areas)
- Minority groups (e.g. hunter-gatherers, certain ethnic groups)
- Deprived groups (e.g. labourers, urban squatters, landless)
- Women (e.g. women farmer groups, women cooperatives) and children (e.g. youth groups)
- Children (future generations)
- Outside communities (e.g. downstream communities, areas of immigration)
**Box 1-1.2 Example of matrix that indicates relationship between stakeholders**

<table>
<thead>
<tr>
<th></th>
<th>Large landowners</th>
<th>Small landowners</th>
<th>Traders</th>
<th>Banks</th>
<th>Extension Dept.</th>
<th>Local NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large landowners</td>
<td>!</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Small landowners</td>
<td>!</td>
<td>0</td>
<td>!</td>
<td>0</td>
<td>+</td>
<td>!</td>
</tr>
<tr>
<td>Traders</td>
<td>+</td>
<td>0</td>
<td>!</td>
<td>0</td>
<td>+</td>
<td>!</td>
</tr>
<tr>
<td>Banks</td>
<td>+</td>
<td>!</td>
<td>+</td>
<td>+</td>
<td>!</td>
<td>0</td>
</tr>
<tr>
<td>Extension Dept.</td>
<td>+</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>!</td>
<td>0</td>
</tr>
<tr>
<td>Local NGOs</td>
<td>0</td>
<td>+</td>
<td>!</td>
<td>!</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

+ = mutual interests; 0 = neutral, ! = conflicting

**Box 1-1.3 Example of matrix for identification of key stakeholders for targeted involvement**

<table>
<thead>
<tr>
<th>Category</th>
<th>Stakeholders</th>
<th>Interests</th>
<th>Power status</th>
<th>Poverty</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local communities</td>
<td>Large landowners / cooperative Small landowners / cooperative Women Upstream watershed forest owners</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Authorities</td>
<td>Ministry of Planning</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Ministry of Environment</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Local territorial authorities</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Companies in agricultural sector</td>
<td>Traders providing agricultural inputs Local / national commodity traders International commodity traders</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

**Tool 1-2: Involving key stakeholder groups**

**Aim:** To adequately involve the key stakeholder groups in the integrated assessment process in order to:
- To raise awareness, create insight, solve conflicting interests
- To obtain views on different issues and solicit proposals
- To achieve legitimacy and obtain commitment and support in implementing the plan.

**Key principles:**

1. Determine the key moments of participation during the planning/assessment process. Ideally, participation is ensured within each planning element.

2. Determine what level of influence you wish to provide to key stakeholders and other stakeholder groups. There are different possible levels of participation and levels of influence (see Box 1-2.1). Be realistic since participation arrangements will depend on the existing culture of participation and available resources.

3. Determine the most appropriate techniques for participation. Box 1-2.2 outlines the most common approaches or techniques. Note that in many cases it is difficult to directly involve marginalised groups, as they do not have sufficient capacities or means to participate actively.

4. Inform these stakeholders about the forthcoming planning and assessment process, review with them the proposed methods for their involvement and incorporate their suggestions (bearing in mind available financial resources and time).
5. Determine the resources, expertise and funds required to ensure participation during the planning process.

**Box 1-2.1: Participation ladder**

1. Being informed, listening, with no possibilities for feedback
2. Giving information and feedback only on request of the planning authority
3. Being consulted upon the initiative of the planning authority, but without sharing of information
4. Functional participation to achieve pre-set goals by the planning authority
5. Interaction, within a framework set by the planning authority
6. Self-mobilisation, including the design of the planning process

**Box 1-2.2: Possible approaches of involving stakeholder groups**

- **Physical presence:** this may require active support to ensure access to information and effective participation, maybe additional training.
- **Direct representation by duly mandated representative:** for instance by a mayor or NGO leader whose actions on behalf of the given stakeholder group are accountable and legitimate.
- **The normative observer by:** an independent expert who is recognised in the given field but does not directly represent the interests of any stakeholder group. This role can be performed by external agency in the processes.
- **Review and commenting through:** for example, open house, written submissions, public meetings or any other techniques for soliciting inputs from groups that do not take direct part in the planning and assessment process
- **Surveying needs and aspirations of key stakeholder groups and channelling these views into the planning process by e.g. community organiser**

**Element 2: Analysis**

**Tool 2-1: Identification of key environmental issues**

**Aim:** To define the key environmental issues relevant to the sector/s involved, based on stakeholder perceptions. The approach can be used to define key issues from an environmental, social or cultural point of view. Here, the focus is on environmental issues.

**Guidelines:**

1. List all environmental issues that should be examined within the planning process. Make a long list. Use Box 2-1.1 for inspiration, or use the long list of environmental issues on the next page. It might be useful first to identify the various natural resources involved and resource-use systems (such as agriculture, fisheries, construction, waste disposal, etc.).
2. Set priorities, by asking which of these issues is most important for most stakeholders (see Matrix Box 2-1.2). Make a short-list of the most important environmental issues.
3. Of each priority environmental issue, make a brief description, including: current quality, major geographical variation within the area (preferably with maps). Describe unique ecosystems, plant and animal species (being rare, endangered or highly valued). At this stage it may be decided to make separate analyses for distinct geographical units within the area concerned (e.g. rural lowlands, rural highlands, urban).
Box 2-1.1: Categories of environmental issues (not exhaustive)

- **Primary products**, these are products directly derived from the environment, e.g. food, fibres, energy, fresh water, fodder, minerals, construction materials, etc.
- **Secondary products**, these are products that require human management, e.g. agricultural crops, livestock fodder, irrigated crops, etc.
- **Regulation and stabilisation services**, this is the capacity to provide security and stability, and withstand external shocks, e.g. purification of air and water, protection against floods and droughts, dispersal of seeds, provision of micro-climate, regeneration of soil fertility, etc.
- **Biodiversity**, including the diversity of species, habitats and landscapes, with mainly indirect values for human well-being
- **Enrichment / cultural issues**, these are non material values, e.g. spiritual values, landscape values, historical sites, cultural traditions, …

Box 2-1.2 Issue – value matrix to set priorities among environmental functions based on stakeholder perceptions - Example

<table>
<thead>
<tr>
<th>Issue: Stakeholder:</th>
<th>Clean water</th>
<th>Timber</th>
<th>Non-timber products</th>
<th>Soil protection</th>
<th>Habitat for fauna</th>
<th>Landscape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large landowners</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Small landowners</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Traders</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Tourists</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Extension Dept.</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Local NGOs</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Priority level of the issue</td>
<td>1 (23)</td>
<td>3 (19)</td>
<td>(16)</td>
<td>2 (22)</td>
<td>(14)</td>
<td>(16)</td>
</tr>
</tbody>
</table>

1-5: increasing value of the environmental issue for stakeholder indicated

Checklist of environmental issues (functions, products or services)

**I. Primary production functions**

- Oxygen by vegetation;
- Vegetative food and nutrition for humans (directly edible);
- Fodder and nutrition for livestock (directly edible);
- Wildlife products and fisheries;
- Biochemicals and nutrients (for agricultural production mainly);
- Water for drinking by humans (safe drinking water, thus with a high quality);
- Water for drinking by animals / livestock (lower quality acceptable);
- Water for irrigation, fisheries, industries, cleaning etc.;
- Water as a transport medium;
- Genetic resources (for agrobiodiversity mainly - both flora and fauna);
- Medicinal products (flora and fauna);
- Fuel and other energy resources (e.g. petrol and wood);
- Raw materials for building, construction, clothing, handicrafts, etc;

**II. Secondary production functions**

- Livestock products;
- Agricultural crops;
- Construction materials;
- Forest plantations.
III. Regulation (protection) functions
- Regulation of run-off waters and erosion by vegetation;
- Regulation of flooding by river floodplains, marshes, etc.;
- Water catchment and groundwater recharge;
- Protection against flooding by dunes, mangrove and forest fringes;
- Water retention capacity of soils;
- Purification functions of waters and soils;
- Storage and break down (decomposition) of wastes;
- Biological control mechanisms, e.g. for crop protection;
- Forming of topsoil;
- Regeneration and maintenance of soil fertility;
- Reproduction and growth of animals and plants;
- Micro-climate function of forests;
- Forests as carbon sinks in terms of global warming effect.

IV. Biodiversity functions
- Maintenance of biological diversity at species level;
- Maintenance of biological diversity at habitat level;
- Maintenance of biological diversity at landscape level;
- Intrinsic values of all biodiversity (‘the right to be there’).

V. Enrichment or cultural functions
- Aesthetic and tourist values (the beauty of landscapes and nature);
- Spiritual and religious values (e.g. holy trees, sacred forests);
- Historical, cultural, scientific and educational values.

Tool 2-2: Poverty perspectives and root causes analysis

Aims: To undertake a poverty analysis of stakeholders in the sector/s involved, and identify main problems and root causes.

Guidelines:
1. Of the major local stakeholders in the sector/s involved, compile available information on different poverty perspectives. This does not only involve income aspects (see Box 2-2.1). Where major gaps remain, one can make use of qualitative information, by making comparisons between different stakeholders. Present the overview in a matrix (one axis stakeholder groups, other axis poverty perspectives).
2. List all poverty problems. Then set priorities on the basis of which problem affects most stakeholders.
3. For critical poverty values identify the main direct and root causes of poverty. See below, Box 2-2.2 with example.

Box 2-2.1: Poverty perspectives (based on sustainable livelihoods approach)
- Financial: level of income, financial benefits
- Human: level of human development such as skills, knowledge and education
- Natural assets: dependency on natural resources and ecological processes for productivity, sustainability and diversity
- Health: physical and mental health
- Physical: basic infrastructure and means of production
- Social: level of organisation and networking, social relations, cultural and gender equity
- Livelihood strategies: the diversity of strategies adopted
- Security: Access to resources, access to micro credits, level of risks
Box 2-2.2. Matrix: Direct and root causes of priority poverty problems

<table>
<thead>
<tr>
<th>Poverty problem</th>
<th>Direct causes</th>
<th>Root causes – of different nature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Institutional political / Economic / Socio-cultural</td>
</tr>
<tr>
<td>Low off-farm incomes</td>
<td>Lack of employment</td>
<td>Poor investment policies Low level of organisation</td>
</tr>
<tr>
<td></td>
<td>Lack of skills</td>
<td>Lack of business skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor level of organisation</td>
</tr>
<tr>
<td>Poor sanitation</td>
<td>Poor sanitation services</td>
<td>Low priority of sanitation services Poor maintenance of water facilities</td>
</tr>
<tr>
<td></td>
<td>Lack of safe water supply</td>
<td></td>
</tr>
<tr>
<td>Low level of information</td>
<td>Poor communication infrastructure Remoteness of the region</td>
<td>Low priority given to development of remote areas</td>
</tr>
</tbody>
</table>

Tool 2-3: Trend mapping and analysis

Aim: To map trends of key priority sustainability issues (environmental, social or economic).

Guidelines:
1. Of each identified key sustainability issue, identify indicators that tell something about the quantity and quality of the identified issue. Pay particular attention to per capita pressure indicators and demographic trends. The pressure on natural resources and other environmental functions will largely depend upon demographic changes, consumption patterns and the level of technology.
2. List the available documentation and data records that give information about this issue, particularly during the past 5-10 years. On the basis of available information, conclude on the direction of change (improving, deteriorating or stable). If available data permit, make a diagram showing how qualities or quantities of the sustainability issue has changed over the years.
3. Of each trend, describe the time span involved, the location and the size of the area affected, the intensity and severity of change.
4. Describe exceptions on ‘average’ trends (where, when, how). These exceptions might be valuable starting points for change, particularly if a negative trend predominates.

Box 2-3.1 Proposed format and example

<table>
<thead>
<tr>
<th>Sustainability issue</th>
<th>Underlying indicators / observations / data</th>
<th>Trend (or in graph)</th>
<th>Exceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to safe water for sanitation purposes</td>
<td>• Records of water supply systems</td>
<td>Rate of increase of water systems does not match population growth. Sustainability is threatened because groundwater table declines.</td>
<td>Decline of groundwater table is not apparent in valleys</td>
</tr>
<tr>
<td></td>
<td>• Records of water supply and groundwater table</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Demographic data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment of women</td>
<td>• Employment statistics</td>
<td>Employment of women increases very slightly</td>
<td>In the agricultural sector women employment increases more rapidly</td>
</tr>
<tr>
<td></td>
<td>• Gender analysis and studies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Tool 2-4: Identification of key sustainability issues**

**Aim:** To identify key sustainability issues and their relationships (environmental, social or economic).

**Guidelines:**
1. The following matrix (Box 2-4.1) captures the main steps and questions to identify key sustainability issues, moving from values (as appreciated by stakeholders) to risks and problems.
2. Priority sustainability problems can then be identified using the following criteria:
   a. Level of appreciation of the underlying social, environmental and economic values by multiple stakeholders.
   b. Impacts on these sustainability values of different dimensions (positive or negative); risks and threats involved; sense of urgency.
   c. Risks for other areas or future generations (trade-off in time and in space).
   d. The number of people potentially affected by the problem.

**Box 2-4.1: Matrix to help identify key sustainability issues**

<table>
<thead>
<tr>
<th>Parameter with main guiding questions</th>
<th>Economic dimension</th>
<th>Social dimension</th>
<th>Environmental dimension</th>
<th>Relations between dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sustainability values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“What is important to sustain, that is appreciated most?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current problems and risks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“What are urgent problems or risks for priority values, to address here and now?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Future problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“What are sustainability values threatened in the future?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spatial trade-off</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“What are sustainability risks in areas and for people elsewhere?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Winners and losers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Who benefits and who is affected by the current sustainability problems?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Summary of main sustainability problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Example**

Here is an example of a priority sustainability problem using the above criteria. The problem identified is that of “Water pollution due to excessive use of pesticides causing health problems”, with following scores on the listed criteria:

a. High dependency on safe water supply for rural people, mainly the poor. Also used for various local agro-processing industries.

b. The problem affects water quality, both surface and groundwater. Farmers need to invest more in pesticide use as pests become resistant. Leads to health problems and costs for medicines to cure water-related diseases. Poses serious risks for health and indebtedness of farmers. Affects biodiversity and soil fauna, thus degrading the soil, with risks for future generations.

c. Causes downstream problems for communities dependent on drinking water. Affects long-term profitability of farming as costs increase and productivity declines due to increasing pest resistance.

d. Affects a large and increasing number of stakeholders.
Tool 2-5: Identification of root causes and opportunities for sustainability problems

Aims: To identify the root causes of priority sustainability problems, and the positive opportunities to do something about it.

Guidelines:
1. The below matrix (Box 2-5.1) captures the main steps and questions to identify key sustainability issues. Sustainability problems should be solved in a fundamental way, and to do so root causes should be identified and addressed. Root causes can be of social, economic or institutional/political nature.
2. Together with the root causes, it is important to identify the actors (institutions, agencies, businesses, social groups, ..) responsible for the identified root cause.
3. Looking at existing potential and opportunities is useful to identify win-win options and starting points for strategies to tackle these root causes. Use Box 2-5.2 for ideas to identify potential and opportunities. This might lead to a package or combination of interrelated policy options, because problems are in most cases caused by a combination of factors.

Box 2-5.1: Matrix for analysis of root causes, actors and opportunities related to a sustainability problem

<table>
<thead>
<tr>
<th>Levels</th>
<th>Factors:</th>
<th>Actors:</th>
<th>Opportunities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>Economic</td>
<td>Socio-cultural</td>
<td>Environmental</td>
</tr>
<tr>
<td></td>
<td>Id.</td>
<td>Id.</td>
<td>Id.</td>
</tr>
<tr>
<td>National</td>
<td>Id.</td>
<td>Id.</td>
<td>Id.</td>
</tr>
<tr>
<td>International</td>
<td>Id.</td>
<td>Id.</td>
<td>Id.</td>
</tr>
</tbody>
</table>

NB: Under economic dimension also consider technical and financial factors. Under socio-cultural dimension also consider demographic, knowledge and information factors.

Box 2-5.2: Examples of potential and opportunities

<table>
<thead>
<tr>
<th>Category of potential or opportunity</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental potential</td>
<td>Potential for high-value non-timber forest products, for which good markets exist</td>
</tr>
<tr>
<td>Innovative techniques</td>
<td>More efficient techniques that also cause less pollution</td>
</tr>
<tr>
<td>Local initiatives</td>
<td>Initiatives of producer groups to organise themselves</td>
</tr>
<tr>
<td>Social change processes</td>
<td>Increasing awareness of health problems related to environmental problems</td>
</tr>
<tr>
<td>Successful projects</td>
<td>Project reducing waste by employment of youth in urban centres</td>
</tr>
<tr>
<td>Ongoing policy change</td>
<td>Process of policy change in forest sector, to stimulate more sustainable forest management systems</td>
</tr>
</tbody>
</table>

Example
Here is an example of a root causes analysis using the above matrix, for the sustainability problem of “Water pollution due to excessive use of pesticides causing health problems”. One can see root causes (R), associated actors (A) and opportunities (O) at different levels and within different dimensions.
### Root causes (R) causing problem, associated actors (A) and opportunities (O) to help solve the problem, in different dimensions and at different levels

<table>
<thead>
<tr>
<th>Levels</th>
<th>Economic</th>
<th>Socio-cultural</th>
<th>Environmental</th>
<th>Institutional / Political</th>
</tr>
</thead>
</table>
| Local  | R: Local illegal availability of banned pesticides  
A: Local traders  
O: Decentralisation, organisation of farmers  
F: Poor farmers buy cheap pesticides, poor environmental awareness  
A: Traders  
O: Increasing awareness among users  
R: High incidence of pests and pest resistance  
A: --  
O: IPM technology, local rice varieties, crop diversification, indigenous practices  
R: Lack of enforcement capacity of local authorities  
A: local authorities  
O: capacity building by donor programmes |
| National | R: Subsidy level of pesticides / input supply  
A: Ministry of Agriculture  
O: Need to restructure subsidy  
R: Problem has low priority in national press  
A: Ministry of information  
O: Increasing attention in local press  
R: Deforestation in catchment area disrupting water balance  
A: Upstream landowners  
O: Forest management schemes  
F: Extension promotes high pesticide use  
A: Extension Department  
O: Alternative extension packages, farmer-to-farmer extension on IPM |
| International | R: Illegal trade of pesticides  
A: Chemical concerns  
O: Pressure by environmental NGOs  
O: Growing international public awareness on health problems and willingness to pay for organic rice  
O: Good results with IPM in some countries |

## Element 3: Strategic planning

### Tool 3-1: Defining a vision

**Aim:** To define with the stakeholders involved a common vision for a sustainable future.

**Guidelines:**

1. Defining a vision for a common future should be done by a participatory process involving all relevant stakeholders. A common vision can strengthen mutual understanding. A common vision can also be a strong communication tool. A long-term vision can serve as guidance for directing policies towards a more sustainable future.

2. Bring together different stakeholders and have everyone define their own vision for the region or sector/s involved. A good vision should meet the following criteria:
   - Sufficiently specific for the sector and context concerned, referring to specific values
   - Constitute a challenge but also be realistic (e.g. it should be economically feasible, take into account existing tensions, look forward and deal with emerging pressures)
   - Be stimulating and motivating
   - Create an image of a desirable future.

3. Share each other’s vision, then note the common elements, the distinct elements and the conflicting elements. Using the common and distinctive elements try to build a common vision. Also note the conflicting elements.

4. Once all have agreed on a good vision, define the specific objectives or goals that fit under the vision.
**Example of a good regional vision:**
- Region X will become the production centre of the best quality fruits and fruit products, constituting a motor for agro-processing and poverty reduction, and contributing to maintain the unique parkland landscape of the region and that will attract many tourists.

**Examples of a poor regional vision:**
- Region X will make sustainable use of its unique natural resources while benefiting the poor, and women in particular [too general, may be applicable to any region]
- Region X will be the centre of national cereal production benefiting farmers and the population as a whole [not a challenge if the region is already the grain producing centre]
- Region X will become the centre of fruit production meeting the highest quality standards, creating employment and forming the basis for sustainable management of the diverse environment and its populations [not too stimulating]

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**Tool 3-2: Defining objectives and goals in line with the vision**

**Aims:** To define sustainability objectives and goals for environmental, social and economic key issues, in line with the vision.

**Guidelines:**
1. For each of the identified priority sustainability issues, define the objectives that you want to reach in the future. In line with that, define the goals (or targets).
2. Goals can be defined in two ways:
   - As bottom-line standards, based on unacceptable risks and limits of undesirable change.
   - As goals to support sustainable development, in line with the vision.
3. Check the consistency of the set goals with the vision (Box 3-2.2).
**Box 3-2.1 Examples of objectives and goals for environmental sustainability issues**

<table>
<thead>
<tr>
<th>Sustainability objectives (based on identified key issues)</th>
<th>Goals (to reduce risks and meet bottom-line standard)</th>
<th>Goals (to attain desirable future)</th>
</tr>
</thead>
</table>
| Health | • Not less than 1 skilled person per household  
• Health services available within at least 1 day | • All labourers skilled, men and women  
• Health services available within 1 hour |
| Security | • Land security for at least 5 cropping seasons  
• At most 2 months 75% food security  
• Existing conflicts do not cause serious casualties | • Continuous land security  
• Year round food security  
• All conflicts solved |
| Regulation | • Water-related diseases do not cause deaths  
• There are at least 2 local rice varieties available to everyone | • No more water related diseases  
• All local rice varieties accessible to everyone |
| Enrichment | • Sufficient rice for at least 1 ceremony per year  
• Locally consumed foods produced at regional level | • Sufficient rice for all normal ceremonies  
• All local foods produced at village level |

**Box 3-2.2: Matrix to check consistency of identified goals with the vision**

<table>
<thead>
<tr>
<th>Identified goals</th>
<th>Compliance with the vision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strengthens the vision</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 3: Evaluating the effectiveness of integrated assessment

Tool 3-1: Example of possible indicators to evaluate integrated assessment

As part of the preliminary assessment process, participating authorities and stakeholders will also be asked to express their expectations as regards the outcomes of the integrated assessment. Outcomes will be expressed as verifiable indicators. The next table gives relevant categories and some examples of good indicators.

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples of indicators</th>
</tr>
</thead>
</table>
| Participation by authorities (from different levels and sectors) and stakeholders (including marginalised groups) | • Number of workshops and number of participants from different sectors, levels and social groups  
  • Number of inputs from marginalised groups  
  • Proportion of women participating |
| Capacity building                                                        | • Number of institutional changes to institutionalise integrated assessment procedures  
  • Capacity by sectoral staff to apply integrated assessment tools without external support |
| National and international coordination and inter-sectoral collaboration | • Number of organisational arrangements strengthened or newly established, involving different stakeholders and sectors  
  • Number of times plans of sectors have been adjusted to each other |
| The use and replication of integrated assessment tools and techniques     | • The use of integrated assessment techniques by different sectors |

Tool 3-2: Possible issues for detailed interim review of pilot projects

During the implementation of the pilots, participating authorities and IA teams will be asked to review the effectiveness of the pilot projects. The list below (adapted from Rasso, 2002) outlines some of the issues that may be addressed in the interim review.

Influence of the IA on the planning process
- Has the IA provided useful information for the planning team so far? What was appreciated most/what was irrelevant, etc.?
- Has the IA reflected questions and concerns of key stakeholders, which were not initially included in the plan? What was appreciated most/what was irrelevant, etc.?

Quality of information
- Was the information provided by the IA process adequate (i.e. comprehensive, rigorous and understandable) from the point of view of the planning team? What was missing?
- Was the information provided by the IA process adequate (see above) from the point of view of the key stakeholders? What was missing?

Cooperation and stakeholder participation
- Has cooperation between the IA team and planning team started effectively? Why? What are the main suggestions for improvement in this field?
- Has involvement of the public started effectively? Why? What are the main suggestions for improvement in this field?
- Is it likely that the IA will proceed effectively? Are there any “built-in” conflicts in the process?
- What are the main suggestions for improving cooperation between the IA team, planning team and other stakeholders?
**Tool 3-3: Possible issues for the detailed final review**

Pilot projects will have to be reviewed after completion in order to determine the effectiveness of the chosen approach and techniques. The list below (adapted from Rasso, 2002) outlines some of the issues that may be addressed in the final review.

**Influence on the planning process**
- How did the IA influence the planning process?
- Did the IA help to reflect issues that were not initially included in the plan? Please provide examples.

**Quality of Information**
- How would you evaluate the quality of the final IA report? Why?

**Cooperation**
- Was the cooperation with the IA team and planning team (ex-ante team, other stakeholders) effective and sufficient? Why?
- Was the cooperation of the IA team with the key stakeholders effective and sufficient? Why?

**Overall comments on the IA process**
- How do key stakeholders and planning teams evaluate different elements of the IA? Why?
- What problems can be pointed out in the IA?
- What suggestions do you have for improving IA in future?

**Constraints and opportunities**
- What were the most significant constraints to achieving an effective IA?
- What were the most significant positive factors ensuring success of IA?