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Living between urban and rural areas

Shaping change for improved livelihoods and a better environment

Volume 2

Developing an environmental planning and management process for the peri-urban interface:

Guiding and working principles

Guidelines for strategic environmental planning and management of the peri-urban interface

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These guidelines have been formulated by critically reviewing and consolidating the existing knowledge and experience world-wide concerning environmental issues and actions at the peri-urban interface and then discussing the results with representatives of government, non governmental organisations, community based organisations, universities, and business and with citizens in and around the five cities of: Hubli-Dharwad (India), Kumasi (Ghana), Manizales (Colombia), Curitiba (Brazil), and Chennai (India). Local collaborators gathered information and opinions, and organised workshops for these discussions. Pre-existing research in Hubli-Dharwad and Kumasi provided a wealth of information about their peri-urban interfaces and effects upon the livelihoods of the poor of a kind and a depth that is unique. In addition, representatives of more than ten international development support organisations - including ICLEI, UNCHS, USAID, DFID and IIED - provided critical commentary on the draft recommendations.

Later, local collaborators in Hubli-Dharwad, Kumasi, and Manizales conducted activities to field test various means of disseminating the guidelines. These included a project website, posters, street plays, a video and leaflets, as well as a set of three booklets of which this is volume 2.

Volume 1

Understanding change in the peri-urban Interface

This introductory volume provides a contextual analysis of the peri-urban interface, the processes of change arising from the interaction of rural and urban areas and the problems and opportunities arising from this interaction.

Volume 2

Developing an environmental planning and management process for the peri-urban interface: guiding and working principles

This volume presents the key Guiding Principles to lead the environmental planning and management process of the peri-urban interface and then elaborates on the Working Principles and Components that must be applied in order to benefit the poor and enhance the sustainability of the natural resource base.

Volume 3

Peri-urban environmental planning and management initiatives: learning from experience

This volume provides an overview of some of the initiatives that are being undertaken with respect to the environmental planning and management of the peri-urban interface by development agencies, NGOs, research institutes and government authorities.

Introduction

This volume outlines a framework for strategic environmental planning and management (EPM) of the peri-urban interface (PUI). Presenting a set of guiding and working principles to create a process of change, to improve the livelihoods of the poor and promote the sustainable use of natural resources affected by the peri-urban interface.

This booklet has three parts:

The nature of the task
The first part describes the task of managing the peri-urban interface and highlights the main differences that a specific environmental planning management process might require.

Guiding principles
This second part presents the principles that should guide such a process.

Components and working principles
The third and final part, focuses on the environmental planning management process itself, suggesting the different stages, tasks and tools that should be applied.

The nature of the task

Although little environmental planning and management has been done so far for the peri-urban interface, principles that should guide such a process can be drawn from the characteristics outlined in Volume 1 and the body of experiences reviewed in Volume 3. [1]

Before presenting those principles, it is important to highlight the characteristics that make the planning and management of the peri-urban interface distinctive:

- **Changing locations.** As a city or town expands its influence, new locations are constantly becoming a part of its interface while old ones become a part of the built-up urban area. The peri-urban interface creates a changing mix of both urban and rural activities. As a result, certain land uses less suited to urbanised areas, such as landfills, mining, industrial developments and airports become located in the interface between urban and rural activities. The changing locations often make it difficult to establish jurisdictions or areas of responsibility to effectively address sustainability and poverty concerns.

- **Changing populations.** The populations directly affected by the peri-urban interface are changing, as the interface introduces new people from both urban and rural areas.

  As a result, the network of actors and institutions relevant to the peri-urban interface is dynamic. That is to say that the identity, composition and interests of institutions involved tend to change in a process characterised by changes in the stakeholders. As a result, it is difficult to establish clear and more or less permanent institutional arrangements capable of dealing effectively with the long term management of natural resources and the improvement of the livelihoods of the poor.

- **Weak and overlapping institutional structures.** The peri-urban interface is subject to many competing interests without an adequate institutional framework to strike a fair and just balance among them that might contribute to relieving poverty and protecting the environment.
  In order to address these two challenges in an interconnected way, it is necessary to understand, not only how the processes of change in peri-urban interface affect people's livelihoods and the use of natural resources, but also the links among organisations and people that influence those changes.

  Carrying out a strategy to benefit the poor and to enhance the sustainability of the natural resource base of the peri-urban interface is a complex enterprise.

These guidelines suggest a set of principles to address the task. The guidelines are not intended as a blueprint for action but as a map to lead the users through the different challenges of creating and strengthening a process to shape change at the peri-urban interface.

[1] For an analysis of new and traditional EPM approaches see Atkinson, 1999, downloadable from, **www.ucl.ac.uk/dpu/pui/output5.htm**

Guiding principles

The aims are to achieve environmental sustainability and improve the livelihoods and quality of life of the poor. This is to be done by bringing about change that seizes opportunities and reduces environmental problems. The following principles are overall guides to the many activities that must make up a process of environmental planning and management of the peri-urban interface that is effective in relation to such aims.

The logic of these principles is clearer if they are grouped around three qualities that must be possessed by an initiative to shape the change occurring at the peri-urban interface: these are *strategic*, *participatory* and *incremental*.

Strategic

This relates to the way in which the process is approached. An entry into what is going on is strategic if it can bring about significant change. Rather than attempting to tackle all environmental problems of the peri-urban interface at once, that which is important and more easily achieved is targeted. Opportunities to do more will begin to multiply once the process of change has begun, like a stone thrown into a stream causing ripples that stretch further and further outwards. Strategic guiding principles are:

1 **For the purposes of environmental planning management, define the peri-urban interface as the meeting of urban, rural and natural ecosystems.**
The presence of an urban system gives rise to a dynamic situation because the urban system is usually changing. Consequently, the meeting of these systems creates problems and opportunities. Each system marks out territorial dimensions within a peri-urban interface. Seeing the peri-urban interface as the meeting of urban, rural and natural ecosystems recognises its characteristic features more than identifying it as a physical area, by using descriptions such as the city periphery or the urban hinterland.

2 **Maintain an orientation to the future to ensure there is planning.**
Look beyond the present situation and avoid an obsession with current problems and opportunities. Environmental sustainability cannot be addressed without future orientation because it requires a long term perspective. A short term perspective alone might create new problems, compared to an approach which attempts to look ahead and which focuses on objectives.

3 **Deal with matters affecting the natural resource base.** This will maintain the environmental character of the enterprise, giving planning and management of the peri-urban interface and of urban-rural links an initial focus which is easily and widely recognisable to a cross section of civil society and government. Such a focus has more potential for arousing interest. Once established, environmental planning management can provide the base from which to broaden management of the peri-urban interface to encompass social and economic problems and opportunities.

4 **Develop a strategic approach to deal with problems as well as opportunities.** Strategic environmental planning management differs from other approaches in so far as it does not attempt to intervene in all aspects but focuses on certain interventions whilst maintaining direction towards the desired goal. Crucial to this function is the establishment of priorities, and directing action to the treatment of these priorities. [2]

The broader issues – especially those of integrating rural and urban activities – need to be identified, prioritised and addressed. A long-term perspective is needed to guide immediate actions if environmental sustainability is to be achieved.

Changes brought about by the peri-urban interface can lead to both environmental problems (negative impacts) and opportunities (positive impacts). The peri-urban interface can provide benefits to both urban and rural lives that should not be overlooked. For instance, rural areas have sink capacities to absorb some of the pollution produced by urban activities, while urban water systems can be extended to make piped, potable water available to nearby rural villages. [3]

5 **Link strategic environmental planning management with other broad urban and rural management strategies and policies.** Environmental issues in the peri-urban interface are not simply a subset of urban or rural issues and cannot be separated from the wider challenges of economic, social and institutional problems that affect both urban and rural areas.

6 **Connect the 'green' global and the 'brown' local agendas.** The two agendas are generally treated as distinct and separate, often resulting in the separation of traditional concerns for a clean and well-managed environment from the need to keep in mind sustainability. By focusing attention on the links between local environmental problems and the sustainability of the natural resources, it is possible to devise environmental planning management initiatives that address both agendas at once, creating synergy. [4]

[2] A strategic approach to EPM has a long term focus rather than short term. It is visionary as well as realistic. It moves toward the vision in increasingly complex circumstances by adapting to change.

[3] Processes of change in the PUI are results of any continued set of actions connected with the continuation, development, and change of urban-rural interactions.

[4] The brown agenda focuses on those environmental issues, problems and strategies that have an immediate local impact. The green agenda relates to longer term and global environmental issues.

7 **Link global and local sustainability**, in order to heighten concern for the longer term and for connections to larger ecological systems. Local prosperity and sustainability depends in the long run on reducing the impacts of production and consumption patterns on global resources and natural sink capacities of each urban region. Cities have become less reliant upon their hinterland for sustenance and are increasingly importing, not only their consumer goods, but also food, energy, water and building materials from distant sources. At the same time, wastes produced in urban areas are increasingly being exported to distant regions and impacting on the regional and global environment, overfilling the 'natural sink' of local and global systems to absorb or break down human wastes.

In addition to responding to immediate problems and opportunities, pursue long term sustainability of the natural resource base supporting the livelihoods of the poor as well as supporting rural and urban development. These guidelines aim for complex outcomes to fit a world that is even more complex. Addressing immediate problems alone will not bring development that is socially, economically, and environmentally sustainable.

8 **Give adequate consideration to 'software' strategies as well as to 'hardware' strategies.** New infrastructure facilities and technical innovations have their place in strategies, but heavy reliance on them to solve problems has not been notably successful despite high financial outlays. Much more can be done than in the past with interventions that affect the local economy, structures of ownership, administrative structures, and social behaviour and culture. [5]

Rather than search for techniques and technology to deal with individual problems and opportunities, seek to change existing processes and create new processes by changing the structure of relationships among actors and with stakeholders. Techniques and technology are easily and quickly outdated by changes in circumstances. A good process will obtain the required techniques and technology as and when they are needed.

[5] 'Software' strategies involve solutions such as training and capacity building. 'Hardware' strategies focus on the use of technological innovations such as a solution to development issues.

Participatory

As a theme within the process of environmental planning management, the criteria of participation relates to the collective use of individual strengths. Approached collectively, the aspects of change can be tackled in a much more realistic fashion. After all, the effects of environmental change fall upon everyone within the area, and so everyone will benefit from improvement. Certain actors will bring different strengths to the process; some will come with practical knowledge, some with institutional knowledge, some with financial assets and some with commitment. A successful process must draw from them all to achieve the aims of environmental sustainability bringing benefit to the poor.

9 **The poor must be identified and recognised as many diverse groups if they are to benefit.** To know what costs and gains are encountered by the poor as a consequence of environmental planning management, this group must be identified. This is also necessary if the ways in which they are affected by environmental conditions before environmental planning management, is to be used as a benchmark for comparison and a basis for selecting priority problems or opportunities to address. Differences among the poor might arise from gender, ethnicity, class and age considerations and the way in which these differences shape access to and control over livelihood assets. 6

6 See volume 1 for a detailed description of livelihood assets.

10 **Involve the poor and their champions in the process.** It is more likely that decisions benefiting the poor will be reached if the poor themselves or advocates of their interests participate during the whole process, from the identification of problems and opportunities to the formulation and implementation of strategies and actions.

11 **Formulate strategies and take decisions with knowledge of the livelihoods of the poor.** If benefit is to be enjoyed by the poor, this will be determined by the impacts that decisions and actions have on their livelihoods. These impacts cannot be estimated beforehand without good knowledge of how those who are poor carry out their lives.

12 **Involve all key actors and stakeholders in the process,** that way it is more likely to succeed and become sustainable. To manage environmental changes in a beneficial and sustainable way, it is necessary that all those in business and government who create changes take part, as well as those in communities and business who are affected by these changes. Also, those in government with the power or authority to intervene in the social and economic processes that drive environmental change must be involved.

Social and economic processes drive environmental changes in the peri-urban interface. It is thus necessary to identify those whose actions result in environmental change and those who have an interest in the consequences of these actions. This requires the analysis of the structures of power and wealth: rapid change beyond the urban periphery is a matter of the wielding of power and the control over resources.

13 Boundaries, overlapping concerns, uncertain responsibilities, and complex relationships should not exclude stakeholders and actors. The existing divisions of responsibilities are not leading to adequate environmental planning and management of the peri-urban interface. One reason is that they have not been able to deal with the fact that almost always many decisions affecting the peri-urban interface are taken outside of where the peri-urban interface has its impacts. Treating urban, rural and natural eco-systems together increases the complexity of the problem and this will have to be met with comprehensive responses.

7 Processes of change in the PUI are results of any controlled set of actions connected with the communication, development and change of urban-rural interactions.

Incremental

Procede step-by-step in creating a process of change. In the same way that environmental problems occurred over time and gradually, so they must be tackled in the same way. Haste will lead to mistakes within the process; elements are more likely to be missed out. In order to bring about effective processes of change, maximising opportunities present and future, the approach taken must be conscientious and thorough. Problems must be worked at systematically.

14 Identify problems and opportunities by first identifying the processes of change generated by urban and rural interactions, that affect the natural resources around the urban area and the living conditions and livelihoods of the poor. Examining the basis of problems and opportunities reveals entry points for strategic interventions that are more effective because they address the causes rather than effects. The focus on processes of change as opposed to a focus on states of being is particularly important where the peri-urban interface is concerned. This is because the changes created generate opportunities and problems affecting people and places that are always themselves changing. 7

8 The ecological footprint of a city-region is the corresponding area of productive land and aquatic systems required to produce the resources used, and to assimilate the wastes produced, by the population in the city-region.

15 Design a strategy for environmental planning management with particular circumstances in mind. The profile of environmental problems and opportunities in the peri-urban interface varies greatly from one city region to another. It is therefore necessary to devise strategies which are context specific. This demands the consideration of a series of factors which help to determine the causes of those problems and opportunities. Whilst some of these factors are physical in nature, many relate to social, economic and institutional questions. The concept of an ecological footprint helps to understand the impact of production and consumption patterns of a city region. Providing a visible picture of the land requirements used by a population in terms of energy, waste and food consumption. 8

16 Integrate the many efforts to deal with the environment and maintain their orientation, ensuring that the environment is being managed as a whole, rather than individual aspects of it by separate agencies that are not co-ordinated. Unfortunately, it is common for a problem or opportunity to be dealt with in isolation, and only when it is most prominent.

17 Regularly up-date knowledge of circumstances and of those who should be involved. This is necessary because of the changing nature of populations affected by the peri-urban interface and because of its changing locations.

18 Establish environmental planning management in existing administrative structures and routines. Make the problems and the opportunities arising from the interaction of urban and rural activities, their effects on the poor and on the sustainability of the natural resource base, regular day to day concerns of all the key public and private organisations that can do something about them.

These concerns will become embedded in an organisation when it is shown how the new actions and priorities satisfy the organisation better than the old ones. Alternatively, this can happen if the motives of the organisation are reshaped, such as by raising awareness about the issues involved, or by mobilising the will of a higher level of authority to command attention to new actions and priorities.

Components *and* working principles

Components are the elements that make up a process of environmental planning management of the peri-urban interface, to benefit the poor and to pursue environmental sustainability.

There are few circumstances in which some of these elements are not already in existence. These guidelines are expected to be used most often to create what is required by adding to activities and institutions already existing and strengthening their connections with one another.

The necessary components can be located in four procedural groups.

follow up and **consolidation of the process**

appraisal

action and **implementation**

engagement

The first components are for **appraisal** or taking a close look at the problem at hand, an assessment of the causes, the effects and the actors involved. At this stage it is essential to take as wide a view as possible, considering all that is there.

1 Identifying key processes of change in the peri-urban interface.
2 Identifying problems and opportunities.
3 Identifying the actors dealing with the peri-urban interface, the relationships between them and their roles and initiatives.

The second group are components for **engagement.** It is essential that the environmental planning and management process involves actors and organisations from the start and sustains their participation in the process.

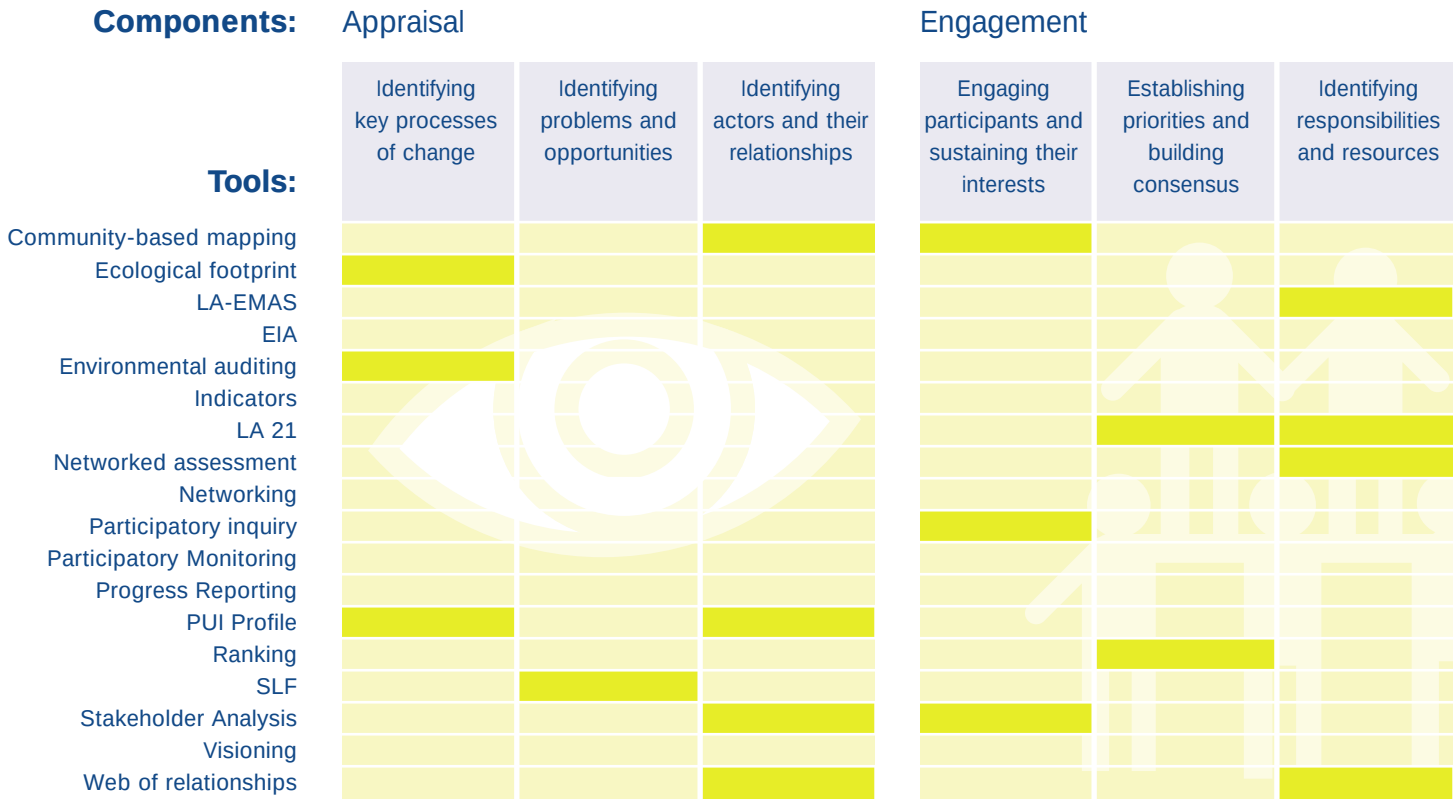
4 Engaging participants and sustaining their involvement.
5 Establishing priorities for intervention and building consensus.
6 Identifying roles, responsibilities and resources to be mobilised.

The third group are components for **action** and **implementation**. Once the problems have been carefully considered, ways in which to influence and access the opportunities available must be worked out.

Action must be planned thoroughly and systematically in order to effect change that will promote environmental sustainability and benefit the poor. Foresight is important at this stage, for it can not be expected that action will solve problems instantly. Rather they will begin a process of change.

7 Formulating strategies and their plans of action for environmental planning and management of the peri-urban interface.
8 Finding an institutional base for environmental planning and management of the peri-urban interface.
9 Generating initiatives to improve environmental planning and management of the peri-urban interface.
10 Implementing strategies.

Below: Tools for the engagement of components in the process of environmental planning and management



The fourth group are components for **follow-up** and **consolidation of the process** created. Its effects must be monitored, remembering that the first results will be the beginning of a process, not the end. What has been created by the four groups of elements is a loop, in which all components lead to and feedback to each other.

11 Institutionalising environmental planning and management that benefits the poor and seeks sustainability.

12 Monitoring the process.

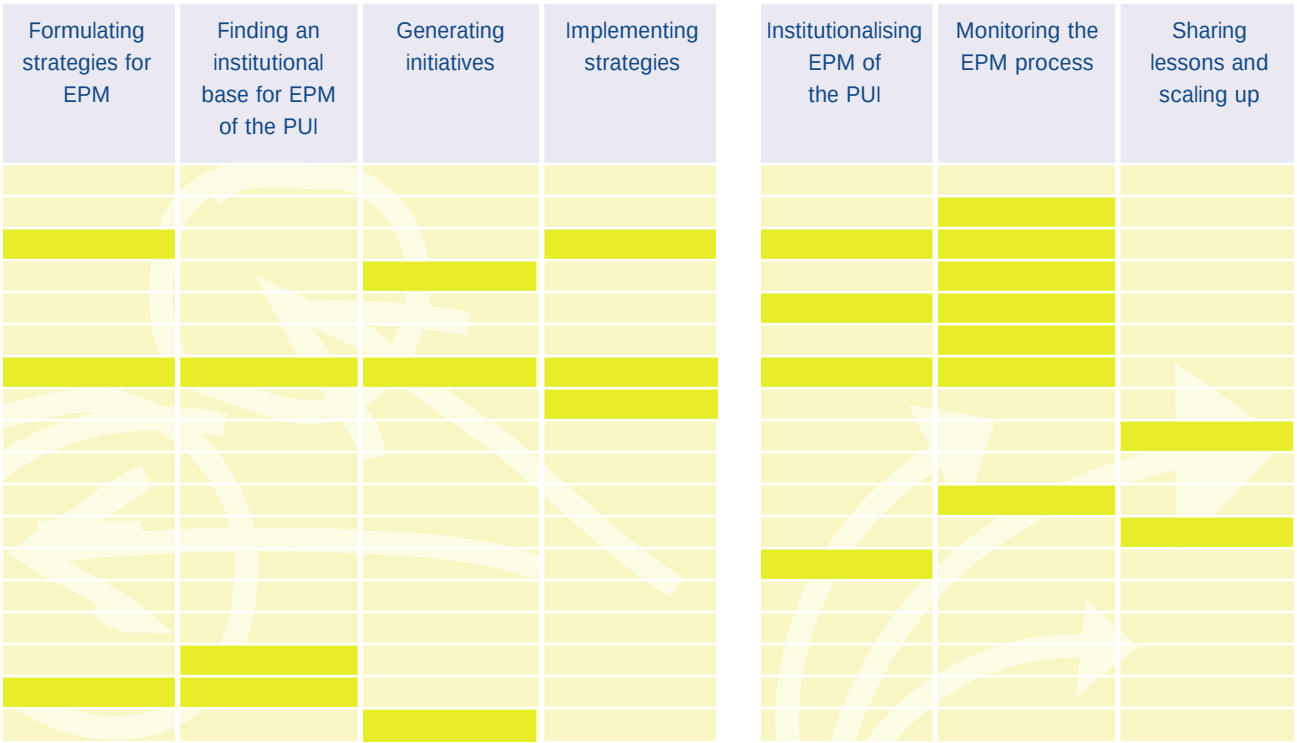
13 Sharing the lessons of experience and scaling-up the process.

Working principles describe how components can be carried out in keeping with the guiding principles. Accordingly, they are identified below in relation to individual components. The column to the side provides a brief indication of some of the tools that can be used to support the implementation of each component. Some of these tools can be applied to more than one component as shown in the table below.

For detailed analysis of the tools shown here, visit the ICLEI web site: **www.iclei.org**

Action and implementation

Follow up and consilidation of the process



Appraisal

1 Identifying key processes of change

Working principles

1.1 **Learn the character of the processes** that impact on the natural resource base and the livelihoods of the poor in the peri-urban interface by identifying:

- Changes in land use and ownership such as:
  - Shifts from agricultural to urban and industrial use.
  - Physical expansion of the city.
  - Construction of large-scale infrastructure facilities such as airports, reservoirs, dams, power stations.
  - New housing without adequate infrastructure and services which may be located in risk-prone areas.

- Changes in the use of renewable resources [9] such as:
  - Deforestation when trees are removed to use the land for other purposes.
  - Changes in the crops grown i.e. shift from agricultural crops to horticulture.
  - Increasing re-use of water resources.

- Changes in the use of non-renewable resources [10] i.e. metals, non-metallic minerals and fossil fuels, such as:
  - Mining of minerals.
  - Mining of building materials.

[9] Renewable resources are ones that can be restored after being used such as air, water and soil. However the extraction of renewable resources beyond their abilities to restore themselves can lead to depletion.

[10] Non renewable resources cannot be restored once used or they take a long time to be restored by nature.

- Generation of wastes, such as:
  - Disposal of urban wastes outside the built-up areas.
  - Disposal of increasing wastes from expanding rural villages.
  - Air pollution from cities and/or from industries located in nearby rural areas.

1.2 **Examine the social, cultural and economic processes** lying behind these physical changes in order to understand their causes. Analysis of the use of power and wealth to control resources is required. Land speculation, large-scale construction and industrial projects, changes from subsistence farming, and patronage (or locally democratic) decision-making to commercial decision-making are all acts utilising power and wealth.

HOW: The peri-urban interface (PUI) profile provides a rapid appraisal and produces information on the ways that development activities and institutional arrangements within a particular urban region determine the quality of the environment.

Changes to the use of natural resources as well as to the livelihoods of the poor affected by the peri-urban interface might be driven by local processes (for instance, the competition for land between urban growth and agriculture), by regional and national processes (for example, industrial growth), or by international processes, such as falling prices of export crops that increase the migration of impoverished farmers from rural areas to the peri-urban interface in search of alternative livelihood opportunities.

1.3 **Examine rural-urban linkages** in order to identify the relevant processes of change. The flows of people, production, commodities, capital, natural resources and waste through links between the urban and rural systems must be known if something is to be done about their effects.

HOW: ecological footprint analysis is an accounting tool that helps to assess links between urban activities and rural ones. It provides a visible picture of the land requirements used by a population in terms of energy, waste and food consumption.

1.4 **Adopt long-term perspectives** as well as short term ones when identifying these processes, consider the possible long-term effects of existing processes and of processes of change which might possibly arise in the future. This can reveal the challenges and possibilities for sustainable use of the natural resource base.

1.5 **Be concerned with those poor** who are directly affected by the processes of change created by the peri-urban interface. Include those who were not so before but have been made poor by these processes of change. They tend to be easily overlooked. This adds to the complexities of delivering benefits to the poor through environmental planning and management.

Gains to one part of a livelihood strategy may be offset by losses to another. The complexity is compounded by the changes people make to their livelihood strategies over time as the presence of urban activity increases. Gains to one part of a strategy may be short lived, while those to another may be longer term.

2 Identifying problems and opportunities

Working Principles

2.1 **Identify problems affecting the livelihoods of the poor** and the sustainability of the natural resource base by examining the pressures on peri-urban systems that result in:

- environmental hazards threatening the quality of life and livelihoods of the poor
- ill-health and malnutrition for the poorest
- other environmental hazards arising from the overburdening of local and regional absorptive capacities.

HOW: DFID's sustainable livelihoods framework articulates the relationship between livelihoods assets, transforming structures and policies and their impact on the livelihoods of the poor.
It classifies people's assets into five categories:

- *natural assets* (e.g. land, water, wildlife,forests),
- *human assets* (e.g. skills, knowledge, good health),
- *financial assets* (e.g. savings, supplies of credit),
- *physical assets* (e.g. infrastructure, housing, transport, communications),
- *social assets* (e.g. membership of groups, relations of trust, access to wider institutions).

For a detailed explanation of the sustainable livelihoods framework see volume 1.

2.2 **Identify the opportunities** to improve the livelihoods of the poor and the sustainability of the natural resource base of the peri-urban interface by examining the scope to:

– use natural renewable resources more efficiently (e.g. water, soil, food, bio-fuel supplies);
– minimise the use of non-renewable resources (e.g. minerals, fossil fuels);
– keep the generation of wastes and pollution within the capacity of the local and regional environment to absorb them without harm (e.g. do not dump into a river chemicals or sewage that will not quickly breakdown into harmless substances or that will exceed harmless concentrations).

2.3 **Identify the physical locations** of those activities which give rise to environmental problems and opportunities. Determining the physical dimensions of the peri-urban interface for environmental planning and management as a number of sites that are not necessarily connected and are subject to change. Where the density of occurrence of these sites is uniformly high, the peri-urban interface can be generalised as a physical zone, providing important cases are not then left out.

2.4 **Obtain knowledge** of how the multiple livelihood strategies of the poor and their living conditions are affected by the problems and opportunities; this is done in order to understand what the poor can gain from environmental planning management, and might be done by applying DFID's Sustainable Livelihoods Framework. Strategies based upon urban economic and service opportunities should be taken into consideration, as well as those based upon traditional rural activities. For example, farmers may take part-time jobs in the city or in activities created by the proximity of the city, such as a factory. A household may rent a room to a city worker. Rural based strategies alone are likely to be based on more than one activity. Informal sector activities that are hard to identify may be common and need to be taken into account. [11]

2.5 **Obtain information** about the diversity of the poor, so that the differences and similarities of the impact they receive from the peri-urban interface are understood. Their diversity will be reflected in their livelihood strategies. Pay particular attention to gender differences as there is a clear indication that changes in the social, economic and natural environment related to the peri-urban interface have a strong gender dimension. The changes in the roles performed by women and their vulnerable social status can raise the risk of their exposure to health hazards related to pollution, contamination and dangerous conditions.

[11] See 'The nature of the task'and 'Guiding principles' (2 and 17) of this volume.

3 Identifying actors dealing with the peri-urban interface, the relationships among them, and their roles and initiatives

Working Principles

3.1 **Identify those actors** who are already creating problems and opportunities as well as those who are likely to be able to significantly affect the processes of change, in order to know who can take part in shaping change.

> **HOW:** stakeholder analysis is a tool to understand and identify the people, groups or institutions with an interest or 'stake' in the environmental planning and management of the peri-urban interface and the ways in which their interests affect the viability and objectives of interventions that form a part of the environmental planning and management process. Stakeholder Analysis provides information on how these groups relate to each other socially, politically and economically.

3.2 **Identify also those who have a significant stake** in the environmental impacts of the peri-urban interface, both those who gain and those who lose. This will not only aid in identifying the poor who are affected, but also those who can be expected to support or resist environmental planning management efforts to shape change.

3.3 **Obtain knowledge of existing policies** and identify those actors who are already intervening so that they can be targeted for changes in their interventions. Appropriate environmental strategies ought to arise from an understanding of the current policies that affect directly and indirectly the processes of change taking place in the peri-urban interface. Therefore, examine not only those policies that have immediate physical impacts on the locations where the processes of change of the peri-urban interface manifest themselves, but also those that affect urban-rural flows involved in these processes of change. [12]

3.4 **Look for actors and stakeholders in all three ecological systems** urban, rural and natural so that all the actors and stakeholders are known. Look for actors at various levels of government. Look for them in the private and community sectors as well as in the public sector.

3.5 **Identify the links between all of these actors and stakeholders** and the nature of the relationships that link them. These relationships will be based upon flows of resources (including information) and exercises of authority and power. The absence of a significant link can be as important as the existence of it. Links help to explain the roles each actor plays. A very useful way to picture these relationships is to map them as a web of relationships.

[12] Also see PUI profile in 1.2 in this section.

HOW: the web of relationships is a framework for mapping various actors and their relationships within the four spheres of activity: citizen, policy, organisational and delivery. It is both a diagnostic and operational tool. The four spheres of activity include a total of at least thirteen elements which represent sites of power. The elements form a web, in the sense that they are linked and interrelated in particular ways and ultimately they reinforce each other.

3.6 **Remember to regularly update knowledge of the actors involved.** This requires regular revision because of the frequent changes that characterise the peri-urban interface.

Engagement

4 Engaging participants and sustaining their involvement

Working Principles

4.1 **Use participation in all of the process components** to build commitments and improve the quality of decisions and the actions that follow. The impacts of environmental planning management are determined by the decisions and actions shaped in each component of the process. It is thus important to engage actors and stakeholders in the process by drawing attention to the peri-urban interface and raising their awareness of the environmental problems and opportunities it creates, especially the poor. Recognise that most do not have a coherent idea of the peri-urban interface and what it does, so the task will be more difficult than that of engaging people in an environmental planning management process that deals only with a city or town.

HOW: participatory inquiry encompasses a variety of research methods, including Participatory Action Research (PAR), Participatory Rural Appraisal (PRA) and Participatory Rapid Urban Appraisal (PRUA). Participatory inquiry draws on local knowledge and allows local people to voice their concerns without a rigid research structure setting the agenda for discussion.

4.2 **Involve a full range of actors and stakeholders.** Each kind of participant can contribute financial and/or material resources, knowledge and skills, and power, while taking away understanding and commitment. Decisions that can have enduring value require negotiations among all those who can significantly affect the outcome as well as those who are significantly affected. Do not be satisfied with the formation of simple partnerships, but face up to the complexity of interests that are at stake.

4.3 **Involve the poor in the process** to increase the probability that they will benefit. Because they form only a minority of the stakeholders at the city region level, their views may not be heard. Changes in the locations and people affected by the peri-urban interface will make it difficult to maintain the involvement of the poor as leaders and organisations change.

HOW: community-based mapping is a base-line information gathering and analytical tool that involves residents in constructing a picture of their community with the information that is dispersed among them. Local maps are constructed from their knowledge and observations. The results provide an alternative to technically gathered data, that is often more correct.

4.4 **Also involve community based organisations and non-governmental organisations and other organisations** representing the poor, so that the interests of the poor are strongly advocated. In time, organisations of the poor that are taking part in the process can be expected to gain in strength as they experience better access to information and to other decision makers and they learn how to exploit these gains.

4.5 **Acknowledge overlap and uncertainty about responsibilities** and ignore recognised boundaries and divisions (spatial, fiscal, and budgetary) so that no actors or stakeholders are excluded from the list of those involved. Peri-urban interface stakeholders are not only the ones living where the peri-urban interface occurs, but also those living elsewhere (in the built-up urban areas or rural areas) who have a stake through involvement in rural-urban flows.

4.6 **Prevent representation of the larger scale** (e.g. municipality) from dominating that of the smaller (e.g. a local rural area). The positions of weaker participants need to be strengthened if a satisfactory balance of interests is to be maintained. Mechanisms to do this can be placed in the organisational structure of the environmental planning management process.

5 Establishing priorities for intervention and building consensus

Working Principles

5.1 **Adopt a strategic approach** to prioritise and rank problems and opportunities and actions to address them. Priorities for problems and opportunities to be addressed and for actions to address them must be identified and be agreed in order to follow a strategic approach. In the real world of limited resources and capabilities, devoting attention to only some of the possibilities is absolutely necessary if anything of substance is to be achieved.

HOW: ranking is a tool that involves having individuals or groups identify and then evaluate priorities and options. This is done by assigning both qualitative and quantitative values to problems and comparing these values to rank problems from low to high priority.

5.2 **Build consensus** so that priority attention is given to achieving environmental sustainability and benefit to the poor. Stakeholders who have other priorities will not press these outcomes or co-operate to achieve them, so they must be convinced. The most important step in building and keeping consensus for actions that benefit the poor is to involve the poor and their advocates in the environmental planning management process. Their presence within the process will closely monitor it for neglect of this purpose and allow for alarms to be raised that cannot easily be ignored.

HOW: Local Agenda 21 provides a framework for making sustainable development issues day to day concerns at the local government level. It encourages a participatory process usually (but not necessarily) initiated and managed by the municipality, seeking to build the broadest possible consensus in the local community on sustainable development aims and actions to be taken by all sectors.

5.3 **Maintain this consensus** with frequent reviews among participants of what it contains. Promote this consensus through the participation of those who will act and those who will be affected in all elements of the environmental planning management process. Make transparent these activities in which such participation is not practical. Maintain a high degree of freedom of flow of information among actors and stakeholders, and build the capacities of actors and stakeholders to understand the issues. [13]

5.4 **Establish an institutional structure** to create and maintain consensus, so that discussions and negotiations can be carried out on a regular basis to achieve, reconfirm, and adjust priorities as necessary. These negotiations will have to be regular and continuous, performed to accommodate the changes in location, populations, and institutions that are key characteristics of the peri-urban interface.

[13] Also see stakeholder analysis (3) in this section.

6 Identify roles, responsibilities and resources to be mobilised

Working Principles

6.1 **Identify resources possessed or controlled by each actor** and stakeholder that might be drawn upon, the other capacities they may have, and the responsibilities they have been given or they might assume. Mapping actors, stakeholders and the relationships among them can help in defining who is able to do what and the capacities and resources they possess.

HOW: networked assessment is a tool in which assessment methods are executed by those parties or people who have distinct interests and day-to-day knowledge of the different components of the issues and systems being studied. The involvement of key stakeholders maximises the identification and discussion of system changes. See also reference 15, the web of relationships, also find descriptions within the glossary.

6.2 **Do not overlook the possibilities for those who create problems** to take responsibilities and to use their resources for better management of the environment, even though they may be in different ecosystems and/or governmental jurisdictions than the locations and people affected. This is the way to go back to the sources of problems and intervene there, which can be more effective than treating the consequences. It is very likely that environmental planning management will not be successful unless it is able to cross boundaries.

6.3 **Identify driving factors that will motivate actors** to accept responsibilities and release their resources to implement actions. Realistic strategies and action plans cannot be formulated without this knowledge. Operation of effective environmental planning management requires that, through their relationships to it, others are able to motivate an actor to release resources which it (an actor is most often an organisation) controls to bring about the environmental change that is wanted; or they may motivate a change in that actor's relationship to others that releases their resources.

Action and Implementation

7 Formulating strategies and plans of action

Working Principles

7.1 **Formulate strategies** to produce the institutional structures, resources, commitments, and initiatives that, in turn, will result in the creation and implementation of plans of action. Strategic planning is of little use unless it leads to the production of detailed plans for acts of intervention in the current situation.

> **HOW:** local authorities eco-management and audit scheme (LA-EMAS) is a formal management system to monitor performance and progress towards an established objective.

[14] Use the creation of plans of action to test the validity of strategies. If realistic action plans cannot be formulated to implement a strategy, the strategy probably needs to be changed.

7.2 **Clarify strategic objectives** with regards to the problems and opportunities chosen as priorities. These objectives will describe in general terms what is wanted for each problem and opportunity and guide the formulation of strategies for moving in the right directions.

7.3 **Formulate strategies that are expressly capable** of improving the sustainability of the natural resource base and the livelihoods and living conditions of the poor in the peri-urban interface. Seek to create a balance between the formulation of long-term and cross-sectoral strategies and the development of short-term interventions. Allow the linking of green and brown agenda issues avoiding any trade-offs. Think about a traditional problem in a new and cross-sectoral way. For instance, instead of focusing the management of solid wastes on improving collection and disposal, seek to minimise the amount of wastes generated at source and to recycle waste. Or, consider how waste can be used as a resource for another activity. [14]

7.4 **Guide the local community** towards genuinely sustainable development even though this may deny it one of its pet short term projects which threatens the sustainability of the whole. Local wishes need to be balanced with those of the larger populations involved and of longer term concerns. Address the opportunities for developing more effective urban and peri-urban links. Both urban and rural authorities commonly overlook links such as making productive use of urban waste for agriculture or supplying urban needs for food and energy. Estimate the physical locations and extent of the effects of likely interventions in order to judge who will be affected and what natural resources will be affected. These will be more than just the

locations affected by problems and opportunities, because every intervention will have its good and bad side effects.

HOW: techniques such as 'visioning' can help people consider the links between present and future, local and global concerns and mobilise their action towards a desirable future.

7.5 **Build on the existing elements** of an environmental planning management process that recognises three scales of operation: community, local urban and rural, and sub-regional. Use an incremental approach in which the process is initiated at a modest level in response to specific problems or opportunities and is gradually expanded to cover more issues and to involve more actors. In this way institutional arrangements can be expanded as more information is obtained, the benefits become more obvious, and practical experience is gained.

7.6 **Bring key institutions together** to negotiate strategies that build on the best features of each institution and on the existing relationships they have with other actors, as well as strategies that facilitate new relationships. Because conflicts of intentions and priorities and competition for resources is characteristic of any complex intervention (and bound to be unusually strong regarding matters of the peri-urban interface), a coherent strategy involving many actors cannot be constructed unless they all give up some individual preferences in order to keep what they can agree is most important overall. When doing so, it makes sense to take advantage of the strengths which already exist.

8 Find an institutional base

Working Principles

8.1 **Identify the most appropriate institutional arrangement** to improve environmental planning management for the peri-urban interface that builds on existing stakeholders and their relationships that are specific to the urban region. In doing so, identify potentials and limitations for co-operation, with particular attention to the participation of the poor.

HOW: using the web of relationships can help in identifying where an initiative might be made and what it might be. More importantly, this web can be used to trace through the network of relationships how actors and stakeholders might affect one another with their resources and actions as a consequence of your initiative. See the glossary of this volume.

8.2 **Do not expect one institution** to carry out the process. No single institution alone will have the capability to become a basis for effective environmental planning management. Individual institutions tend to be too large or too small, too urban or too rural to properly address the concerns of the peri-urban interface. Moreover, the changing nature of the peri-urban interface calls for action by a changing group of institutions.

8.3 **Bring into this structure the specific institutions** and actors affecting and being affected by the processes of change which lead to priority problems and opportunities. For instance, regional authorities dealing with the definition and implementation of industrialisation policies might be key stakeholders in the process of managing land use changes from agricultural to industrial purposes, but they might be irrelevant in dealing with the impacts of shifting crops from agriculture to horticulture. In this way, the key actors and stakeholders will have places in the structure that delivers environmental planning management.

8.4 **Build on the best features of existing institutions** rather than creating new ones. New institutions cannot be created quickly, and empowering them requires a struggle to shift powers from existing institutions. Look for better ways in which the existing institutions can relate to one another. Identify the capacities that they lack to carry out their responsibilities and initiate actions to build these capacities.

8.5 **Work with a structure that brings together** stakeholders and actors in all elements of the process and which provides a platform for dialogue and negotiation among them. Local Agenda 21 (LA21) is an example of such a structure for broad consultation among stakeholders and actors (such as periodic public meetings) in which some agreement is reached on what matters are important and what should be done about them. A temporary working group of appropriate actors and stakeholders is then created for each important matter, to create plans of action and specific partnerships for their implementation. Working groups are guided by a steering committee.

9 Generating initiatives

Working Principles

9.1 **Seek a point of entry into the existing network** of activities and relationships among people and organisations where an action can have the most valuable effects on the whole of the systems involved in order to change what is taking place. This can be the easiest, and may even be the only, opportunity for an effective initiative. Frequently, such points of entry will be the access to those organisations to which the individual belongs or in which the individual works. For a group or an organisation, such entry points will be connections to certain actors and stakeholders, connections that allow the initiating group or organisation to make an impact on others.

HOW: see web of relationships and stakeholder analysis in 3 in this section. See glossary of this volume for a detailed description.

9.2 **Choose initiatives** that can produce consequences that might build throughout a system, changing the behaviour of actors and the attitude of stakeholders in such a way that the desired outcome can be expected. It is necessary to understand the motives of actors that decide what they do with their resources and actions, in order to estimate how these motives can be appealed to through changes in the relations (for instance, the transfer of money or the exercise of power) that each actor has with the others and to stakeholders.

9.3 **Develop a broad base of concern** from a few well-placed, strategic initiatives. The traditional view that divides the world into urban and rural areas, tends to dominate most situations. Meaning that spontaneous action by many different agencies and groups to better manage aspects of the peri-urban interface is not likely to happen unless specific initiatives are started to bring them together.

10 Implementing strategies

Working Principles

10.1 **Recognise that strategies are carried out** because, in their particular set of circumstances, they contain potentials to mobilise actors and drive their actions. Implementation occurs when actors and stakeholders are committed to performing the necessary actions because they have come to believe their various motives will be satisfied by doing so. Also when the structure of relationships among actors and stakeholders is sufficient for the satisfaction of these motives.

HOW: see Local Agenda 21 in 4 in this section.

10.2 **Build commitments to implementation** throughout all the activities of the environmental planning management process. A key to this is effective participation of those who must act and those who could obstruct action, participation that wins their co-operation and their resources. It is critical that actors and stakeholders know what they are to do and how this will satisfy their motives. Therefore, they must be well informed about strategies and understand them thoroughly.

HOW: see LA-EMAS in 6 in this section.

10.3 **Raise the awareness of actors** of the issues of the environment arising from the peri-urban interface and the consequences for the poor, in order to increase their motivation to carry out their roles. Raise the awareness of the general public about the issues of the environment arising from the peri-urban interface and the consequences for the poor, in order to build up the political willingness to execute strategies and action plans. Politicising these concerns will bring them onto agendas outside as well as inside government.

10.4 **Make capacity building an integral part** of the strategic process. Dealing with the peri-urban interface is a new experience for most actors, as is that of trying to improve the livelihoods of the poor. Training and sharing of experiences is important for the growth of capacities among actors. So is the assignment of new or greater powers. Access to information and experience is necessary for stakeholders to increase their abilities to influence events. Local governments and community organisations outside of the city need special attention because their capacities tend to be significantly weaker than their urban counterparts. To this end, it can be useful to assist them in preparing and implementing small local level projects from which they can learn and gain confidence.

Follow up and consolidation

11 Institutionalising environmental planning management that benefits the poor and seeks sustainability

Working Principles

11.1 **To establish environmental planning management** of the peri-urban interface as a regular, day to day concern of everyone who matters, start by understanding power relationships within a community and its larger society. A strategy available in many cases for altering power relationships is to increase access to information to those who are weakened by the lack of it. Another is to bring public pressure to bear upon actors with key positions in power relationships, using the available information.

A strategy available to everyone is to raise the general level of awareness of the aims and objects of the process through better distribution of available information. It helps to combine knowledge of relationships among the key actors and stakeholders with an estimation of the degree to which benefits to the poor become day to day concerns of each of the key actors and stakeholders. This knowledge can then be used in a strategy to deepen the commitment to these matters where it will have the greatest effect across the entire network. [15]

HOW: in the context of EPM for the peri-urban interface, the web of relationships can be used to identify actions that can promote the institutionalisation of better EPM for the peri-urban interface. Institutionalisation requires that treatment of a particular concern becomes a routine for an organisation or individual. This happens when the virtue of this concern and its priority are accepted and the concern becomes an established element in the culture and beliefs of organisations and individuals. Attention to it is automatic in all activities, and it has an accepted claim on resources.

11.2 **Use the media and place the issues in school curricula.** Provide information to political pressure groups and directly to government offices. Give particular attention to improving understanding of environmental sustainability and to explaining the effects of environment upon poverty. All of these can sustain the concern of the public. A well-maintained environmental profile of the peri-urban interface can be useful in awareness raising activities.

HOW: see PUI profile in 1.2 in this Section.

[15] Also see 2.2 in Section 2 of this volume.

11.3 **Build capacities.** Staff cannot institutionalise a concern if they do not possess the skills, powers, or supporting institutional environment to respond to the concern, no matter how aware they may be of the need. Both actors and stakeholders can take part in the process more effectively and efficiently if they have better skills for participating. They will need better negotiating skills and abilities to obtain, analyse and share information. This is especially true of those who are poor.

11.4 **Pay attention to the improvement of governance**, the relationship between those who govern and those governed in the institutionalisation process to empower the poor. This means seeking relationships that produce more accountability of those who make decisions, more transparency in decision-making and more participation in decision making of those who are affected by them.
A contribution to better governance will improve the larger management structure in which environmental planning management operates.

12 Monitoring and evaluation of the EPM process

Working Principles

12.1 **Devise and use indicators** which will show the impact, progress and effectiveness of the proposed environmental planning and management actions on:

– the processes of change at which they are directed,
– the delivery of benefit to the poor as a consequence of the proposed actions,
– progress toward sustainability of the natural resource base as a result of the proposed actions.

Indicators to monitor the process must respond to the peculiarities of the peri-urban interface. Especially to the fact that both the locations and the populations affected by the peri-urban interface changes over time. Indicators to measure the impact of the process on the livelihoods of the poor and the sustainability of the natural resource base should reflect the degree of success of the environmental planning management process in meeting these objectives.

HOW: indicators are bits of information that reflect the status of large systems. They tell us which direction a system is going: getting better or worse or staying the same. A good indicator is specific to the local context, measurable and resonant to the community.

12.2 **Conduct monitoring activities** that are frequent and a regular routine so that observation of the change that characterises the peri-urban interface is sufficient to guide the process to coverage of the new locations and populations affected. Indicators and measures that are quick, easy and relatively cheap to apply will obviously have advantages.

12.3 **Anticipate trends** that might have an impact on the shift in locations affected by the peri-urban interface for efficient collection of base line data for areas before they are affected by these trends. Also remember that to record progress toward sustainability of the natural resource base, indicators are needed to measure long term impacts upon the natural resource base as well as the immediate, short-term effects relating to existing problems and opportunities.

HOW: environmental auditing involves the systematic examination of environmental information about an organisation, facility, or site, to verify whether, or to what extent, it conforms to specified audit criteria.

12.4 **Use indicators that indicate the impact of the environmental planning management process on the poor.** Remember that benefits to the poor can be in the form of one (or more) of the five categories of assets recognised in the DFID 'Sustainable Livelihoods Framework'. Indicators should be chosen which among them can cover all categories of assets likely to be affected by the environmental matter being monitored. Easier access to potable water as more tubewells are installed in the local community is an example of how the poor can benefit in ways other than monetary. Indicators of the effects on the livelihoods of the poor must accommodate the possible use of multiple livelihood strategies. Therefore, indicators of change to rural based livelihoods alone may not show the overall benefit or loss. [16]

HOW: environmental impact assessment (EIA) is a structured, explicit and systematic assessment of the anticipated or real environmental effects of activities and projects. It may be carried out to identify priorities for improvements in existing activities, or to guide choice between potential future options.

12.5 **Involve the local community, community organisations, local press and the like** in gathering information about indicators because they are well placed to observe local conditions. They can receive early warnings of deteriorating conditions. A free press can act as a watchdog to expose the causes and effects of deteriorating social and environmental conditions. A monitoring system dependent on a group or association of local level institutions can be sensitive to changes in the areas affected by the peri-urban interface. As new locations feel the impact and others become urbanised, new community organisations and local governments can be added to the system, while others will drop out or disappear. Some systems and personnel used to collect data on indicators will have to change with the peri-urban interface because of its particular character. Participatory monitoring systems will need a facility for welcoming and training new members.

[16] See volume 1 for an analysis of the sustainable livelihoods framework.

HOW: participatory monitoring has potentials for increasing effectiveness over an area as large as a city-region. It may be easily organised and operated as an extension of participation in other components of EPM for the peri-urban interface.

13 Sharing the lessons of experience and scaling-up the process

Working Principles

13.1 **Disseminate lessons of experience** among all the actors and stakeholders. This will support continuous participation in the process and inform decisions at all levels. A way to do this is to build an environmental network that includes all of those who are engaged in, or affected by, the key processes of change which characterise the peri-urban interface.

HOW: progress reporting both on achievements and constraints facilitates the flow of information among participants and provides essential feedback to learning from experience. This can be done through local means of communication.

13.2 **Connect to existing networks** at the regional, national, and international levels that are concerned with environmental management. Although the networks of government and international donors may be the most obvious, do not overlook those of non-governmental organisations and universities. In exchange for the lessons of one's own experiences, these networks can be expected to provide information about the achievements and problems of others.

HOW: networking through associations of municipalities, federations of NGOs and the like allows not only learning from the experience of others, but also developing and strengthening webs of action to scale up EPM for the peri-urban interface.

13.3 **Make use of existing experiences** as valuable sources of skills, knowledge, and encouragement to those who are just beginning a programme to improve circumstances in their own city-regions. Supporting efforts to establish environmental planning management, that will benefit the poor in other places is not just a matter of charity. Scaling-up to widespread practice of environmental planning management is likely to increase not only the body of knowledge about how it can be done better, but also can be expected to strengthen political support and administrative and financial resource commitments, as awareness and results increase public concern.

Glossary

Environmental Planning and Management (EPM): is a set of activities aiming at identifying environmental problems (before they turn into costly emergencies) and opportunities (in time to take good advantage of them), at agreeing on strategies and actions in response to these problems and opportunities, and at implementing strategies through co-ordinated public and private actions. EPM can take a strategic approach which seeks to make a balance between the formulation of long-term cross sectoral, dynamic strategies and the development of short-term action programmes or projects. A strategic approach to EPM focuses on essential interventions that can be implemented quickly, have a high chance of success, lay the grounds for dealing effectively with future environmental matters, and give priority to strengthening emerging institutions. EPM stresses a "holistic systems approach" in which planning is seen as a complex iterative cyclical process rather than a linear sequence of stages.

Institutionalisation: is defined as the process whereby social practices become sufficiently regular and continuous to be described as institutions that is social practices that are regularly and continuously repeated because they are accepted as part of an organisational culture or social cultural. Institutions should not be confused with organisations. Institutions are the establised underlying practices of organisations. The institutionalisation of EPM is defined as incorporating its practices and methods into the institutional structure and behaviour.

Peri-urban interface (PUI): defined, from an environmental perspective, by the meeting of an urban and one or both of a rural and a natural ecological systems. The meeting of ecosystems, when one of these is urban, gives rise to a dynamic situation because the urban ecosystem is usually changing. Consequently, problems and opportunities are created by the meeting of these eco-systems. They show their effects at particular locations, and these locations mark out the peri-urban interface. For the purpose of environmental planning and management, this is more appropriate than identifying an area defined by factors such as land uses or population density or at a predetermined location, such as the city periphery or the urban hinterland.

PUI processes and flows: are defined as any continued set of actions connected with the continuation, development, and change of urban-rural interactions. The focus on processes of interaction and flows rather than states of being is particularly important for the planning and management of the PUI because urban-rural interactions generate a dynamic situation of change which can generate opportunities and problems for different groups. Four main processes of environmental change usually take place in the peri-urban interface: land use changes, use of renewable resources, use of non-renewable resources, generation of wastes and pollution

Rural-urban interactions: the processes of social and environmental change taking place in the PUI need to be considered in the light of complex rural-urban interactions.

Stakeholders: a stakeholder is any person, group or institution who has an interest or "stake" in an activity, project or programme. This definition includes both intended beneficiaries and intermediaries, winner and losers, and those involved or excluded from the decision-making process.

Usually no distinction is made between stakeholders and actors. However, a useful differentiation recognises that not all those whose actions are part of an environmental matter recognise (or accept) they have a stake in an EPM process for the PUI. For example, an industry located in a city may be discharging harmful wastes into a river leading into the PUI, and its operators may not recognise or be interested in the problem which is the outcome of their activity. They do not see that they have anything to win or lose.

Sustainability (of a natural resource base): with regard to environmental matters, this is defined as protecting the environment so that present and future generations will be able to enjoy it.

The environmental sustainability of the natural resource base of the PUI is linked to the sustainability of the regional extraction patterns of renewable and non-renewable resources and the minimisation of environmental costs (waste, pollution) from rural and urban systems to the PUI. Similarly, the sustainability of both rural and urban areas can be affected by the dynamic and changing flows of commodities, capital, natural resources, people and pollution taking place in the peri-urban interface.

Sustainable Livelihoods: a livelihood is made up of the capabilities, assets (including both material and social resources) and activities required for living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets, both now and in the future.

Sustainable Livelihoods Framework (SLF): is a tool to analyse livelihoods. It has three main components: assets, transforming structures and processes, and livelihood strategies and outcomes.

Livelihoods assets. At the heart of this SLF lies an analysis of the five different assets upon which individuals draw to build their livelihoods. These are:

Natural assets. The natural resource stocks from which resources flows useful for livelihoods are derived (e.g. land, water, wildlife, biodiversity).

Social assets. The social resources (networks, membership of groups, relationships of trust, access to wider institutions of society) upon which people draw in pursuit of livelihoods.

Human assets. The skills, knowledge, ability to labour and good health important to the ability to pursue different livelihood strategies.

Physical assets. The basic infrastructure (transport, shelter, water, energy and communications) and the production equipment and means which enable people to pursue their livelihoods.

Financial assets. The financial resources which are available to people (whether savings, supplies of credit or regular remittances or pensions) and which provide them with different livelihoods options.

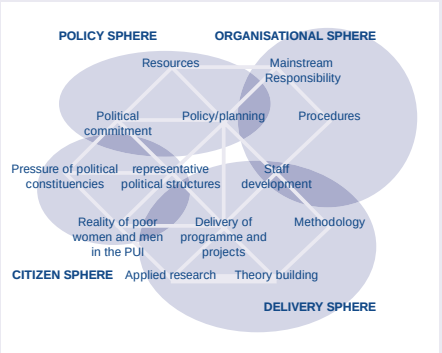
Transforming structures and processes - transforming structures (public sector, private sector, civil society) and processes (legislation, policies, culture and institutions) are crucial because interventions at this level are likely to affect strategies and outcomes. They operate at all levels, from households to global, and determine access to assets, terms of exchange between different assets, and the returns (economic and non-economic) to livelihood strategies. Understanding transforming structures is especially important in the PUI, where institutional fragmentation and rapid change in the roles, responsibilities, rights and relations between different groups and organisations can result in growing social polarisation.

Livelihood strategies and outcomes - this is where rural-urban linkages can be more visible, for example in the form of different forms and types of migration, multi-spatial household organisation, etc. It is also where the opportunities and constraints characteristic of PUIs can be more easily identified, for example in the types of income diversification strategies available to different groups.

The sustainable livelihood framework is essentially a participative tool whereby people identify not only what livelihood assets are and also the major constraining forces or factors are (including structures and processes) that affect their livelihood options.

Web of institutionalisation is a framework of particular relationships. It is a diagnostic and operational tool for institutionalising a particular concern in policy and planning. The web pictures four spheres of activity (citizen, policy, organisational and delivery), at least thirteen elements which represent sites of power, and links between elements which represent the relations (existing and/or potential) among these elements. Elements are not merely variables or entry points. They form a web, in the sense that they are linked and interrelated in a particular was and ultimately they reinforce each other. The final form of the web and its elements is specific to a given context determined by physical, political and socio-economic conditions and by time. Elements are put into place, shaped and operated by different agents of various groups of people.

In the context of environmental planning and management for the peri-urban interface, the web is useful as a diagnostic tool to understand the role each element plays in environmental problems and opportunities. As an operation tool, the web can be used to identify actions which can promote the institutionalisation of better environmental planning and management for the peri-urban interface.



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