

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

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 fi

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 periurban 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. 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. **B** 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.

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. S '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.



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.

1 C Design a strategy for I O 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.

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.

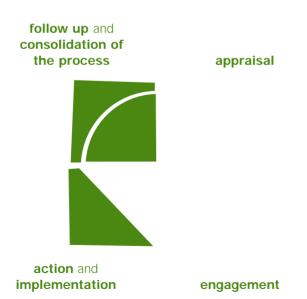
These concerns will become embedded in an organisation when it is shown how the new actions and priorities satisfy the organisation better than the old ones. Alternatively, this can happen if the motives of the organisation are reshaped, such as by raising awareness about the issues involved, or by mobilising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



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

Components:	Appraisal			Engagement			
Tools:	Identifying key processes of change	Identifying problems and opportunities	Identifying actors and their relationships	Engaging participants and sustaining their interests	Establishing priorities and building consensus	Identifying responsibilities and resources	
Community-based mapping Ecological footprint LA-EMAS EIA Environmental auditing Indicators LA 21 Networked assessment Networking Participatory inquiry Participatory monitoring Progress Reporting PUI Profile Ranking							
SLF Stakeholder Analysis Visioning Web of relationships							

The fourth group are components for **followup** 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.

Follow up and consilidation of the process

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

Formulating strategies for EPM	Finding an institutional base for EPM of the PUI	Generating initiatives	Implementing strategies	Institutionalising EPM of the PUI	Monitoring the EPM process	Sharing lessons and scaling up

Action and implementation

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.

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.

- 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

- 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.
- 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

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

- 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.

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 planning4er to k for the peri-urban interface th 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.

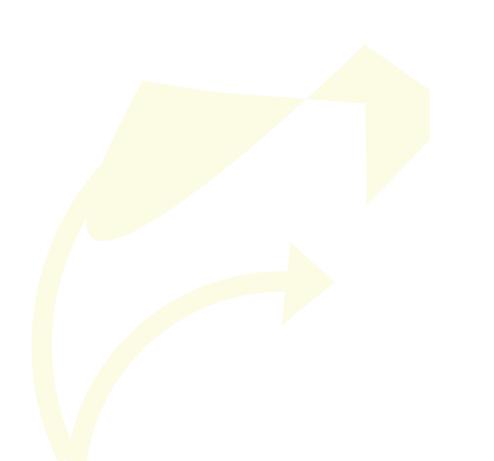
8.5 Work with a structure that brings together

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 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 specifi



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.

- 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. ¹⁴

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

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.

13.2 **Connect to existing networks** at the regional, national, and international levels that are concerned with environmental management. Although the

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 periurban interface.

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 periurban 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 urbanrural 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, ned, from an

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 can be m7.5 0 0 7.5 223.0e6.132vsfo3.2482 0 TD0 Ta0054 Tptialsn betweenvelih1.8al8le inmeworkc0.0278 .8al8le in In the nearly three years of this project, a large number of people helped make this work possible. Because of space restrictions we can only mention by name those with whom we interacted more directly. But our heartfelt thanks go to all those whose inputs helped us improve the final product.

In particular, we would like to thank: our collaborators in Hubli-Dharwad (India), Dr Chandra Hunshal and Dr Anasuya Patil, University of Agricultural Sciences; Dr Nidagundi, Karnataka University; India Development Service and Best Practices Foundation. In Kumasi (Ghana), Centre for the Development of People (principally Bright Asare Boadi). In Manizales (Colombia), Luz Estela Velásquez, IDEA, Universidad Nacional de Colombia. In Curitiba (Brazil), Clovis Ultramari, Universidade Livre do Meio Ambiente; and in Chennai (India), Ravi Kumar and the staff of Swathi Builders.

Our collaborators in Europe, Cecilia Tacoli and Barry Dalal-Clayton, International Institute for Environment and Development (IIED), Germán Adell, Universidad Politécnica de Catalunya, and Adrian Atkinson, private consultant.

The many citizens, government officials, academics, business people, members of NGOs and CBOs and politicians who took part in the workshops held in Hubli-Dharwad, Kumasi, Manizales, Curitiba, and Chennai.

For their comments upon the draft guidelines: Hofger Robrecht, Environmental Management Programme, International Council for Local Environmental Initiatives (ICLEI); Arjan de Haan, Social Development Advisory Group, Department for International Development, UK; Henk de Zeeuw and René van Veenhuizen Resource Centre on Urban Agriculture and Forestry (RUAF) ETC, Leusden, the Netherlands; Luc J.A. Mougeot, International Development Research Centre, Canada; Ilias Dirie and Cormac Davey, Infrastructure and Urban Development Department, Department for International Development, UK; Chris Radford, Sustainable Cities Programme, Dinesh Mehta, Urban Management Programme, and Paul Taylor, UNCHS, Nairobi; Peter Carter, European Investment Bank; Rachel Nugent, FAO; Earl Kessler, USAID; Cecilia Tacoli, IIED; David Sanderson, CARE International UK; and Theo Schilderman, Intermediate Technology Development Group.

The many individuals and organisations around the world that we contacted via the internet in our search for knowledge and experience, including Chris Lewcock and Hilary Warburton of the Natural Resources Institute, UK, Keith Williams, University of Nottingham, and Fiona Nunan of the University of Birmingham, and to those in Hubli-Dharwad, Kumasi, Manizales and Curitiba, who gave us their time in interviews.

The research team was based at the Development Planning Unit, University College London, UK. It was led by Adriana Allen and included Michael Mattingly, Julio D. Dávila, Patrick McAlpine, Mona Chhabra, Jessica Budds, Alicia Minaya, Enrico Corubolo, and Nilvo Luiz Alves da Silva.