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### INSTITUTIONAL STRUCTURES AND PROCESSES FOR ENVIRONMENTAL PLANNING AND MANAGEMENT OF THE PERI-URBAN INTERFACE

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**INTRODUCTION**

Recently, a new interest in urban and rural links has arisen (Gaile, 1992; UNDP/UNCHS, 1995; Tacoli, 1998).  At the peri-urban interface where these links meet, environmental conditions are often at their most  unacceptable.  As compared to MDCs, the interface in LDCs is more often the location of the poor. The poor tend to suffer disproportionately the effects of adverse environmental conditions (Hardoy et al, 1992), and this is one of the reasons. In LDCs, activities at the location of this interface are generally overwhelmed by the changes precipitated by advancing urban growth.

Strategies are needed which deal not only with urban impacts but also with the transitional nature of activities in the zone, once urban impacts are felt.  And there are strategies for rural activities to exploit their proximity to towns and cities. Yet these strategies must be matched to the limited capacities of the institutions available for formulating and implementing them if they are to be effective.  Alternatively, institutions can be given new capacities or new relationships.

**The Environmental Concerns of the Peri-Urban Interface**

Examples of key environmental problems of the peri-urban interface are:

- quarrying and the creation of solid waste disposal sites, which usually destroy land for subsequent uses.
- the use of pesticides on farms which can be carried by air and by water into adjoining urban housing areas.
- contamination of sources of irrigation water with runoff from built up areas and with inadequately treated industrial or human wastes.
- poor health conditions in the households and neighbourhoods of the poor. Poverty is associated with the peri-urban interface because:
- the destruction of farming and other rural economy livelihoods creates poverty in the peri-urban interface (and this has a gender dimension to be considered);
- the urban poor are attracted to the relatively low land values of the urban fringe, associated with the lack of infrastructure and illegality. Illegality is a basis for governments to not provide infrastructure. Illegality also discourages the users of land to invest in improvements which will improve the environmental conditions.  The low land values which attract are also associated with poor land qualities, eg land prone to flooding or landslides, wetlands which breed mosquitoes, and the proximity of refuse dumps.
- protection of environmentally sensitive sites of ecological value.

Examples of key environmental opportunities which arise at the peri-urban interface are:

- urban wastes may be used as fertilisers
- water generated for urban uses may be available for re-use for farming and livestock production
- agriculture for urban markets is possible with which to combat rural poverty and the poor environmental conditions that poverty engenders.
- low cost urban solid waste disposal can be achieved in rural dumping sites.
- recreation and amenity can be obtained conveniently in the adjoining rural areas by urban dwellers

All of these are about things coming together: the problems contain conflicts, and the opportunities depend upon workable linkages being forged, as is the case with wars and marriages, for instance:

- quarrying and refuse dump sites conflict with farming, livestock rearing and housing
- pesticides conflict with human activity
- urban water pollution conflicts with the use of water for farming and livestock rearing
- attraction of low land values conflicts with the unsuitability of the areas for residential use
- urban dweller must have access to the green space and open space
- urban wastes must be made available to farming and livestock rearing
- solid wastes must be carried to an appropriate site.

Like wars and marriages, one cannot dictate a policy regarding such conflicts or links. To implement policies for the peri-urban interface, there must be agreement from conflicting parties and from linkable entities. What is needed is negotiation.

## Negotiation the Key

It seems to me that effective government policies are generally built upon negotiation, especially where they call for the individual person, firm or organisation to behave in a particular way. A law intended to implement policy works when these individuals "follow" or "honour" it. The implication is, of course, that individuals willingly perform the actions desired (driving on the proper side of the road, or not building on a road), Law is an efficient tool for implementation when it requires no more than a little government action (an occasional arrest) to achieve a general mode of behaviour (every vehicle on the right side of the road).

If a law works because individuals follow or honour it by their own actions, then there must be agreement by the individuals to do so. Their agreement rests upon a belief that they are better off to act in accord with the law than not. Motives will differ, but they will be the result of calculations (precise or vague) which show a net gain. If necessary, the law will involve penalties which shape the arithmetic so that there is a net loss if the law is not followed.

We all know this, yet I believe it worth while to stop and consider how a great deal of law has little effect because these calculations do not add up to a net gain in the minds of the individuals affected. Either the penalties are not as great as intended (and therefore affordable by the rich and avoidable by the powerful) or the gains of ignoring the law are much greater than expected.

Effective law understands such calculations and gets them right. It seems to do this by involving the key stakeholders and actors in the formulation of the law, directly or indirectly. Institutions of representation are used, as are instruments for open debate, for obtaining opinion, and for sharing information. What goes on is a process of negotiation in which stakeholders ultimately agree to the costs in order to receive the benefits, and actors agree to costs and priorities which adequately satisfy their various motives. A social contract is made between those governed and those who govern.

## The Challenge

Unfortunately, the peri-urban interface is notably lacking in institutions and processes to negotiate the resolution of conflicts and the forging of links needed to manage the environment. Traditional separations of urban and rural territories and urban and non-urban activities have caused this. The division prevails in our way of thinking. Urban management usually treats a town or city as if it were surrounded by a vacuum (as in UNCHS, 1993 for example, or as evidenced in virtually any urban development plan in a developing country). Urbanists' concerns beyond the city's edge include little more than the conversion of rural land and the off-loading of urban wastes (for example, Habitat II Global Conference on Access to Land etc, 1996). Rural policy tends to overlook all urban activities but those which service farming and animal husbandry, inadequately addressing the advance of urban impacts and missing new opportunities for resource use which they bring. This division is reinforced by definitions of government ministries, departments, and budget sectors, and by the structures of local government and community action. Moreover, attempts to put town and country development into the same framework can remain theoretical and unconnected to strategy formulation (eg Abramovy and Sachs, 1996). Consequently, it is common for those who propose environmental management which involves the peri-urban interface to find that there is no institution able to bring about implementation of policies. The institutional perspectives, frameworks, and procedures are not there with which to effectively span both town and country interests with a net of negotiation.

The meeting of urban and rural activities takes place in a territory which can only be vaguely defined. Land uses and prices may be affected over a long distance from the built-up edge of a city or town. Some of the farmers who sell to urban dwellers may be even further away, as may be water sources for larger urban places. But quarries for building materials will be nearby, and so will solid waste disposal sites. Moreover, the peri-urban interface is a place of change, primarily because urban activities replace rural ones, and this is a ragged process, full or jumps and uneven advances.

It is clear that these links (even though they are both long and short, and their ends may shift positions) cross recognised boundaries which delineate the responsibilities and competencies of the institutions we have with which to manage the environment. A town's government cannot determine enough of what happens in the areas surrounding its administrative boundaries, and perhaps, more important, an adjoining largely rural local government can have little say in what the town does.  A farmers association has virtually no capacity prevent the wasteful use of urban land or to prevent urban rainwater runoff and sewage from contaminating irrigation water. Urban neighbourhoods can do little to preserve and protect adjoining fields and countryside as amenities.

**Existing Institutions and Processes**

To understand why the capacities of existing institutions and their processes are insufficient, we must examine them more closely.

A local government will have little incentive to address environmental matters beyond its boundaries except where it can directly and clearly benefit.  A rural local government will be more concerned to act where urbanisation impacts upon it, but it is commonly handicapped by a relative weakness in resources and political power when it tries to pursue negotiations.

The city of Ilo in Peru provides an example of a different sort (Diaz et al,1996). Its mayor successfully constructed a coalition of businesses, NGOs and government agencies to tackle environmental problems in an unprecedented way with unusually favourable results. This is a case where the mayor's leadership is credited with playing a decisive role, using his detailed knowledge and understanding of local motivations, capabilities and conditions. Possibilities were identified and weighed through a variety of participatory methods which are more difficult to utilise at a regional or even metropolitan level.  However, this initiative did not reach out to include rural interests.  Concern for equity and resource distribution did not extend to rural populations affected by Ilo and connected to its livelihood.

A similar observation can be made about the Sustainable Cities Program of the UNCHS (Habitat) which has achieved substantial positive results.  Using participatory instruments such as city consultations and working groups, it seems to be arbitrating agreements on actions with much wider bases for support than has been achieved before (for example, see Doe and Tetteh, 1999).  Yet, as with Ilo,  an urban perspective is taken which seems to neglect the fate of activities and people of the surrounding rural areas.

Environmental management on an urban-region basis has been extremely  difficult to achieve, much less sustain (Atkinson et al,  1999).  Metropolitan governments are difficult to set up because of conflicts among the units they try to encompass (cost sharing is the common problem, as in the USA, but it can be tinged with other factors such as racial discrimination as in the case of South Africa (Younge,  1999)). As the peri-urban interface shifts ever outward, the involvement of new local jurisdictions is an enduring difficulty.  At the same time as the metropolitan institution grows ever larger, it becomes more remote from the particularities of a local situation and more confined to general actions. Another major problem for negotiating urban and rural agreements is that a metropolitan government is created to manage urban activities. Rural units of government are not included when its boundaries are drawn.

Nevertheless, in the USA, metropolitan governments are seen as instruments for building coalitions to create and carry out regional strategies by achieving cooperation and coordination. Minneapolis-St Paul has been singled out as exceptional because it went beyond the management of growth, land and transport to address matters of equity and resource distribution (Toulan, 1998: 246).

Metropolitan governments can be distinguished from regional ones by the predominantly urban character of their jurisdictions and consequent urban interests.  Regional institutions would seem to have the greater capacity to bring an adequate range of stakeholders and actors into negotiations.  The Hertfordshire County Council in the UK is an example. It has formulated and adopted a set of environmental management policies which integrate the concerns and potentials of the non-urban activities of its rural areas (the larger part of its jurisdiction) with those that are urban. However, the Council's officers have been heard to acknowledge that

participation by stakeholders and actors in the relevant processes was poor because it was so difficult to achieve.

At least the mediating body in this case is led by elected representatives offering stakeholders the possibility of participating through them when policy decisions are taken.  This is not the case in Minneapolis-St Paul where the metropolitan government is appointed. Nevertheless, in Hertfordshire the distances - physical and administrative - between decision makers and those affected seems rather long and convoluted.

A special purpose authority is often attractive because it can cross traditional boundaries of responsibility and because it will be strongly motivated by its purpose. However, the lack of representative structures and other mechanisms to make it locally sensitive and well-informed may leave it crucially deficient, and its fixed boundaries may become a weakness. Moreover, authorities have no permanent place in situations where governance is moving towards greater democracy.

Which raises the matter of governance: the quality of the relationship between government and civil society.  The effectiveness and sustainability of a law is a function of this quality,  if a law is a social contract between those governed and those who govern. Current concerns for better governance call attention to relationships between government, the private sector, and the community or social sector of NGOs and CBOs. Participation in its many forms is to be considered, participation at many stages in the environmental planning and management of the peri-urban interface.

Individuals do not participate directly in negotiations regarding the peri-urban interface except to buy or sell land rights. Their involvement is usually through representatives.  For individuals to feel bound by the agreements produced, the negotiations of these representatives must be transparent and the representatives must be accountable.

For the negotiations to reach a solid agreement, one which will last, those participating must have a good understanding of what is happening in their areas of concern and of what are the probable outcomes of various actions.  Otherwise, sound calculations of cost and benefits are impossible and any resulting agreements will be unrealistic. Participants must have good knowledge of each other and of the circumstances if they are to consider the outcome to be fair.

So a negotiating institution must take certain steps to achieve good results.  It must choose wisely the representatives it brings together.  Where they and those they represent lack understanding, this must be provided.  And the negotiations themselves much take place in a manner open to the scrutiny of those whose interests are involved.

Such observations as these can be put into a useful matrix which relates common types of institutions to their likely capabilities to negotiate successful policies regarding related urban and rural matters.  This is illustrated in the following figure using only four important criteria.

| TYPE OF INSTITUTION | ABILITY TO REPEATEDLY ENGAGE STAKEHOLDERS AND ACTORS IN NEGOTIATIONS | ABILITY TO IDENTIFY KEY STAKEHOLDERS AND ACTORS, KNOW THEIR MOTIVES, AND KNOW THEIR CAPACITIES | POSSESSION OF NEGOTIATING SKILLS | MOTIVATION TO ASSUME THE ROLE OF NEGOTIATOR REGARDING PERI-URBAN MATTERS |
|---|---|---|---|---|
| urban local government | little outside of its jurisdiction | little outside of its jurisdiction | not likely to have such specialised skills | weak; conflicts do not affect its interests, but some opportunities are attractive |
| rural local government | little outside of its jurisdiction, especially with urban actors | little outside of its jurisdiction | very unlikely, for it tends to be poorly staffed | strong; urbanisation creates many problems |
| metropolitan government | substantial; it has influence with many urban agencies, but not with rural ones | good in urban areas at a general level, but not good in specific situations, especially in rural areas | skills may be present, but not in sufficient quantity | strong; urbanisation creates many problems, and some rural responsibilities add to motives |
| special purpose, urban and rural authority | substantial, if endowed with resources and powers | good at a general level, but not good in specific situations | could be good | strong if its "special purpose" is to deal with the peri-urban interface |
| regional government | substantial; it can have influence over urban and rural agencies and institutions | good at a general level, but the specifics of any situation are remote from it | skills may be present, but not in sufficient quantity | strong for general problems and opportunities, but lacking responsiveness to particular situations |
| central/national government | weak; the administrative and physical distances to the local level are too great to mobilise the stakeholders and actors, and staff is not sufficient to work at the local level | good only at a very general level; the specifics of any particular situation are unknown | staff with these skills will far too few to work in all the localities where needed. | weak because of the administrative and physical distances and because of shifting agendas oriented to national concerns |
| non-governmental organisation | weak; its standing is not high enough with government agencies and business | not good because its knowledge will be limited to its founding purpose | unlikely to have these skills | weak, except where the problems or opportunities relate directly to its founding purpose |
| community based organisation | very weak; it has little ability to influence government agencies and business | poor outside of its own community | unlikely to have these skills | weak; limited to that generated by the problems of its community |
| business firm | weak; it has little ability to influence | poor outside of its own | skills may be present | weak and not continuous or |

| government agencies and NGOs/CBOs unless it is very large | business network | | comprehensive; interest will be the result of special problems or opportunities |
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Certain weaknesses stand out:
- Many of the institutions do not have adequate knowledge.  Their scopes of activities and interests are too narrow or too general.
- Negotiating skills are unlikely to be sufficient, if present at all. Government agencies perhaps lack such skills because they used to telling people what to do, rather than mediating among them and facilitating a better outcome.
- It is difficult to have both a capacity to engage the important stakeholders/actors and a capacity to be sensitive and responsive to many specific cases.  This is a common problem of decentralisation.
- It is also difficult to have both strong motivation to deal with a substantial bundle of problems and a) the opportunities, the influence and the capacity to foster negotiations, or b)  the ability to engage the full complement of key stakeholders and actors.

I have argued that there are special difficulties in environmental planning and management for the peri-urban area, and I have identified key qualities which institutions and their processes require to deal with these difficulties.  Looking at general circumstances, I conclude that existing institutions and processes are unlikely to be adequate.  Yet there are experiences which show that much more can be done with what exists, building innovatively on its best features. There is experience which persuasively advocates building on existing institutions rather than creating altogether new ones - or helping those existing evolve into new ones.

There is clearly a need to search for the lessons of experiences which demonstrate what can be done.  With funding from the British Government, a research team at the Development Planning Unit, University  College London is beginning to pull together as many as possible of these experiences.  Hopefully, this will spur similar investigations which reach farther.


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