UCL

DPU

Strategic Environmental Planning and Management
for the Peri-urban Interface
Research Project

PRINCIPLES AND COMPONENTS OF A STRATEGIC EPM PROCESS RELEVANT TO THE PERI-URBAN INTERFACE (PUI)

Adrian Atkinson

Draft for Discussion

June 1999

For more information, please contact:

Peri-urban Research Project Team
Development Planning Unit
University College London
9 Endsleigh Gardens
London WC1H 0ED
United Kingdom
Tel. +44 (0)20 7388 7581
Fax: +44 (0)20 7387 4541
E-mail project: m.mattingly@ucl.ac.uk
Email paper author: adrian.atkinson@ucl.ac.uk
PUI website: http://www.ucl.ac.uk/dpu/pui

TABLE OF CONTENTS

1. INTENTIONS OF THE PAPER

This paper, researched and produced in the context of the Department for International Development research programme on the Peri-Urban Interface (PUI), addresses certain issues that have arisen the course of work in progress by the PUI team at the Development Planning Unit (DPU). It may be read on its own but may also be read more fruitfully in conjunction with other papers posted on this same internet site.

In the first instance the concern of this paper is with inquiring, as stated in the title of the paper, into principles and components of a strategic environmental planning and management (EPM) process relevant to the PUI. The research focuses attention in particular on the problems and needs of the poor living at the interface. However, before coming to the central theme, various background issues arise which need to be discussed before coming to any conclusions regarding any general approaches.

In approaching the subject, what seems to be required in the first instance is a somewhat broader discussion of the overt and hidden purposes of EPM. This needs to be set out in a historic perspective (i.e. how *current* practice relates to practices of yesteryear) and relative to the present-day 'frame of mind' and ideological context that will shed more light on the difficulties of implementing planning systems in general and how this might best be approached under present and emerging conditions. This discussion is presented with the final part of the paper moving on to discussing possible principles and components of an EPM praxis relevant to the PUI.

2. SALIENT ASPECTS OF THE PERI-URBAN INTERFACE

First it is useful to attempt to define the way in which we should understand the peri-urban interface. Adell[1] discusses this, noting at the outset that so far little research has been carried out into this issue[2] and that there has hitherto been virtually no research on poverty in the peri-urban interface[3]. For the purposes of this paper, it is therefore necessary to explore this question and state the positions which informs the remainder of the paper.

The concept of the peri-urban interface has arisen as a way of entering into an analysis of the relationship between urban and non-urban areas, in the first instance in the immediate surroundings of cities. However, the heterogeneity of cities and the way in which they relate to their hinterlands and more distant sources of growth and sustenance requires some articulation.

The most important finding of research so far carried out on this theme is that in recent years 'place' (or 'environment') per se seems no longer to be as important as *flows* of people and materials. The rapidity of change and hence the ephemeral nature of any particular snapshot of the PUI in increasing numbers of urban regions today has to be taken as a starting point of any attempt to summon up a planning process with any potential for success.

Once this is realised, then the issue becomes: 'how far from the city should the limits be drawn'? It might seem, prima facie, that cities interrelate intensively only with a rather confined hinterland and there is some evidence that many aspects of this relationship – numbers of observed movements between the city and other places - tend to be restricted to a relatively narrow radius of the city's edge[4]. Nevertheless, many intensive urban-rural interactions concerned with the supply of specific resources or the migration of people increasingly occur over very considerable distances. Furthermore, the simple idea that urban hinterlands relate only to the immediately adjacent city is also increasingly in question where networks of cities and the rural areas in between interact in complex ways. Some examples (non-exhaustive) of the problem of

---

[1] Adell, 1999.
[2] Williams, 1998.
[3] Rakodi, 1998.
[4] Douglass, 1998:9.

defining the PUI in any simple way include[5]:

- even in the case of megacities (metropolitan regions), there are usually subsidiary towns and even cities to which certain peri-urban activities within the megacity sub-region relate; there is increasing experience of decline in megacity attractive power and even decanting of activities and a re-orientation of rural-urban linkages to secondary cities with the megacities themselves relating more to very long-distant, including international, resource and migration flows;

- since the outset of the industrialisation process, urbanisation in intensely industrialising areas, together with their related rural-urban flows, have tended to be regional rather than connected to particular cities. With the constant relocation of the centres of global manufacturing industry, this tendency has become more marked with rurally-located industries causing ad-hoc urbanisation often over wide areas;

- in fact even traditionally rich farming areas have often developed networks of urban places with different places specialising in satisfying different regional needs such that rural economies and societies interacted with more than one village, town or city for different purposes (central place theory);

- a further variant is the linear city which has become a distinct phenomenon in coastal areas and along some river valleys consequent mainly upon population growth (or densification) in conjunction in the main with either tourist development or industrialisation.

The particular emphasis of interaction between cities and their hinterland has certain components that are near universal and others which are more specific to the particular city and the particular sub-region. Besides their internal functions common to all communities (production and retailing for immediate consumption, social services, etc.) externally-oriented functions of cities that justify their importance include:

- wielding authority (centres of power, religion, capital, administration, etc.)
- services to agriculture (traditionally important, but no longer so)
- services to mining
- manufacturing (with particular specialisations)
- tourism
- entrepot (particularly ports)
- higher education

Whilst it is often clear that one of these functions is the main raison d'être of a town or city, larger cities generally fulfil many if not all these functions albeit with one or a few predominating albeit changing over time. The major role of cities can have a significant impact on the kinds of interaction between the city and its hinterland such that *an understanding of, and engagement with, the city is a necessary part of any attempt to design and apply an EPM process in the peri-urban interface.* Major functions of peri-urban areas include:

- provision of water
- provision of food
- provision of building materials
- provision of bio-fuels
- provision of cheap building land
- provision of labour
- increasingly provision of manufactured goods
- provision of recreation space and facilities for the more affluent
- depository for waste

This 'functionalist' analysis of cities and their hinterlands focuses attention on resources, which remain significant as a serious issue of ecological sustainability. However, salient changes in

---

[5] See Firman, 1996 for a similar classification (5 types) for the Asia-Pacific region.

the urbanisation process obtain their motivation and driving force from changing social and cultural attitudes and practices. Taking both resource and socio-cultural factors into consideration, one can make a few broad statements about the processes of change in the peri-urban interface in recent years as follows:

- 'globalisation'[6] has facilitated an increasing detachment of cities from their immediate sub-regions in so far as transport costs have reduced and the urban population has developed tastes for materials and goods that are not locally produced; in poorer cities where the population does not have the purchasing power to command materials from greater distances, the immediate urban hinterland remains important as a source of provisioning;

- at the level of discourse and the motivation for urbanisation, processes of cultural change and the movement of people has come to the fore as a more significant consideration than the sourcing of materials. Important considerations here are:

  - commercialisation of rural life even in regions at great distance from cities[7] is orienting rural populations to exchange relations that involve greater interaction with towns and cities (producing for sale and purchasing urban products). This is also facilitating the sourcing of urban materials and goods at greater distances in so far as transport costs become a decreasingly significant proportion of the prices of materials and goods;

  - population pressures, ethnic and religious conflict, economic hardship and other exigencies arising in rural areas continue to encourage rural-urban migration[8] which, however, is often seasonal and in the first instance considered to be temporary (where even the poor possess 'multispatial households'). This is intensifying commercial interaction between urban and rural areas in so far as rural urban migrants and commuters seek out ways to increase income through trade;

  - established cities are becoming less attractive as migration poles or for the location of major economic investments. Hence, peri-urban areas – often at a great distance from existing cities and sometimes creating completely new urbanising sub-regions - are attracting both major urban developments such as large-scale industry, golf courses, etc. and major accretions of informal developments that may not relate to any specific existing town or city or may relate equally to several. As discussed by Adell[9], the distinction between 'urban' and 'rural' is becoming increasingly blurred;

- this amounts to a need to comprehend urbanisation and in particular the metamorphosis of the peri-urban interface in recent years not only in spatial (geographical, environmental) terms but also in no-spatial (socio-cultural and economic) terms. It should nevertheless be emphasised that this is not a case of 'one or the other' but of ensuring adequate consideration of both and how these relate to one another.

So: what definition should be taken for the purposes of proposing an EPM system for the peri-urban interface? Should it be taken in terms of a traditional notion of hinterland comprising a zone at a distance from the edge of the built-up area of, say, five or ten or twenty kilometres (a doughnut around the urban periphery)? Should it be taken by reference to some criterion of travel time? Should it be taken by reference to the major sources and sinks of materials, goods and wastes supplied to and from the city regardless of distance (e.g. including areas from which water or bio-fuels are obtained, even where these are at 100 kilometres or more distance from the city – and possibly with other cities in between)?

---

[6] Jones, 1995

[7] The evidence, anecdotal and from case studies, on the way in which villagers in outlying areas are progressively relying on imported goods and materials and hence having to reorient production towards saleable products, is overwhelming. For case studies and an overview of the case of West Africa focusing specifically on rural-urban relations, see Cour, 1998.

[8] This is not to say that rural urban migration is necessarily the major reason for urban growth: in most cases, urban growth is predominantly through reproduction of the already urbanised population.

[9] Adell, 1999

It would seem, prima facie, that the peri-urban planning area must involve some notion of region or sub-region. In this case, in considering appropriate EPM approaches, the two starting points would need to be from a critical perspective upon, on the one hand, recent attempts at EPM and, on the other, the past record of regional planning and management.

3. A CRITICAL VIEW OF PAST APPROACHES TO PLANNING AND MANAGING RELEVANT TO THE PERI-URBAN INTERFACE

A number of papers have been produced in the context of the research programme to which this paper is a contribution and a few remarks are in order concerning the focus within this research programme on the question of a relevant EPM process. The tendency has been to assume that current urban EPM procedures, including those developed by international and bilateral agencies and more generally 'Local Agenda 21' procedures, whilst generally failing to focus much attention on the specific problems of the peri-urban interface, nevertheless provide the only appropriate model for use in the PUI. There has, however, also been an exploration, in one paper[10], of the relevance of more recent participatory planning processes amongst rural communities ('rapid rural appraisal' (RRA), 'participatory action research' (PAR), etc.) that is in process of being adapted for use amongst poor urban communities under such titles as 'Rapid Urban Appraisal' (RUA)[11].

One further paper[12] analysed in considerable detail the theoretical debates concerning the perspective or purpose that should be given to regional development planning but with relatively little reference either to relevant earlier planning practice or to method.   The following paragraphs are aimed at taking a longer historical perspective at initiatives in regional planning that might shed additional light on how EPM principles and procedures might be advanced with particular reference to the PUI.

In the middle years of this century, regional planning was seen very widely as presenting the means to achieving the 'rational' use of natural resources, including allocation of land to different uses, within the overall ideology of 'development'. Many very effective initiatives were taken (albeit there were also many failures) and the discourse held an important place both academically and in certain government circles.

In recent years, however, regional planning *practice* has virtually disappeared from the political and academic agenda. This is certainly not because of its inappropriateness or potential ineffectiveness with regard to the requirements of 'sustainable development' and it will be necessary below to say something about *why* it is in a state of neglect. The next few paragraphs are dedicated to outlining a small selection of initiatives in, and approaches to (traditions of), regional development that will serve as indicators for possibilities for reconsidering regional approaches to the solution of developmental problems, and serving better the needs of the poor, in the peri-urban interface.

- Urban and regional planning are not new. Many ancient civilisations developed rules for the distribution and layout of settlements that show clearly that the inefficiencies of unpremeditated and uncontrolled 'development' that characterise the modern world are not inevitable or necessarily so. Hellenic Greece, although made up of incessantly warring city states, nevertheless developed rules, sometimes applied strictly and sometimes less strictly, concerning the layout, size and spatial distribution of cities.   Rather than allowing cities to grow in an uncontrolled way, limits were set and excess populations moved to found new cities. This founding of new colonies resulted at the height of the Hellenic era of most of the coastal area of the Mediterranean being occupied by Greek cities involving often well-planned cities of modest size (what today we would, indeed, refer to more as towns);

---

[10] Dalal-Clayton, 1999

[11] Mitlin and Thompson, 1995.

[12] Adell, 1999.

- theory and praxis in regional development in Germany exerted considerable influence earlier in this century. In the case of praxis the most notable example was the measures taken to facilitate the industrialisation of the Ruhr valley (the heart of the German industrialisation drive in the late 19th and early 20th centuries) involving in particular the regulation of the supply of water and the disposal of sewage on a regional basis.

  On the side of theory, German economic geographers produced many insights into the bases of economically efficient use of territory in the first half of the 20th century. These included, inter alia, Max Weber's 'industrial location theory' and Christaller's 'central place theory'. The latter analysed how villages, towns and cities tended to be organised in networks with particular distance relationships in the case of relatively undifferentiated agricultural areas[13]. Although not often referred to, central place theory has been influential in recent discourse on regional development discussed later in this paper[14];

- the most famous example of regional planning and management as an approach to the rational use of resources for development is the case of the Tennessee Valley Authority (TVA), established in the 1930s as an approach to combating the effects of the Great Depression on one of the poorest areas of the united States. This initiative involved the construction of technical and social infrastructure to improve the living conditions of the people of the Tennessee Valley region. The backbone of the initiative was the construction of dams to generate electricity to supply industries that, in turn, would bring wealth to the region. At the time, theorists in the United States were divided between those (functionalists) who believed in regional development as a means to improve the national *economic* development and those (territorialists) who were more concerned with serving the more general (including *social and cultural* needs) of the population of the region[15];

- British land use planning, although focusing its main attention on the organisation of urban space, nevertheless had an important regional planning component, which was actively put into practice. This had a significant impact on the configuration of space and activities in the peri-urban interface in the UK over the period during which these policies were in effect, from the late 1940s to the early 1970s[16]. The heart of this approach to regional development involved the containment of large cities via the designation of 'greenbelts', complemented by the construction of new towns, largely built on green field sites. In its radical origins, this approach to territorial planning envisaged the eventual disappearance of large cities and the settlement of the British population in a network of small and intermediate cities[17];

- during the 1960s and 1970s, the World Bank and other international and bilateral development cooperation agencies spent considerable resources on assisting governments in the South to formulate and implement regional plans. There were several distinct foci to these, each of which was subject to its own fate, which included the following:

  - in addition to the establishment in many if not most developing countries of national five year plans, assistance was given to making specific plans for the various regions of the countries involved, often with the intention of focusing more resources on neglected regions and/or establishing alternative 'growth poles' to the all-too-often dominance of the country's main metropole. These centrally-made ('top-down') plans were notable for their failure – with a few exceptions - to make any significant impression on the direction

---

[13] Whilst Christaller's analysis was restricted to South Germany, other analysts found 'rational' patterns of the spatial distribution of urban development in such diverse rural areas as Iowa (USA) and North Thailand.

[14] Adell (1999:5) notes, however, that the presumption of a relatively undifferentiated agricultural area upon which these models are development is difficult to sustain "…in the light of new paradigms such as increased mobility, space-time compression and the multi-spatial context of the everyday household life."

[15] Friedmann and Weaver, 1979.

[16] Hall et al, 1973.

[17] Howard, 1902.

and location of the main lines of national development;

- a variant of these regional plans, which related back to the TVA experience, was the attempt in countries with significant rivers to develop integrated river basin management systems involving the construction of hydroelectric dams and irrigation systems. Whilst there were some notable successes (such as the Brantas river in Java), there also arose many problems, relating to who gained and who lost (e.g. significant displaced populations in order to supply cheap electricity to urban populations and industrial entrepreneurs) and also involving unforeseen environmental and health consequences. In recent years the negative consequences of river basin management systems have become well-advertised and such exercises have been largely abandoned[18];

- in the 1960s it became clear that large and rapidly growing cities in countries of the South were overflowing into rural areas where the administrations were incapable of planning and managing the consequences. Metropolitan authorities were proposed as the solution and many urban regions gained such authorities with specific planning and management functions. Outside the centrally planned countries (and in particular the exception of China, where effective economic planning functions were given to authorities responsible for widely drawn metropolitan regions) these metropolitan initiatives almost universally failed. Neither adequate political authority not the necessary resources were vested in these and in many cases these authorities and their planning functions have now become moribund or been abandoned; it was clear in most cases that they were advocated by technocratic planners who had little idea of the need for a constituency to support them and many if not most had no democratic underpinning.

- At the end of the 1970s and the start of the 1980s there was some significant reflection on the experience of regional planning and management, particularly in the countries of the South, with a view to defining the parameters of more effective approaches[19]. This surveyed the theoretical and practical approaches that had been taken and pointed in the direction in particular for the need to start from existing circumstances and serve regional needs more specifically (territorialism), rather than, as had generally been the case, applying formulae from outside the region and country without asking adequate questions about their relevance and acceptability. The consensus seemed to be that much more attention needed to be paid to 'bottom-up' (participatory) components of the planning process and that regional interests need to possess powers to organise and direct their own development – perhaps through 'selective regional closure' to protect local development initiatives from the 'backwash effect' of global economic fluctuations and the predatory nature of global capitalism.

If regional planning and management has, prima facie, provided a basis for some effective interventions to improve the quality of development in the interests of the regional population, and promises also to provide a vehicle for planning for sustainable development in the peri-urban interface, then why is it in eclipse? In detail there are many reasons which vary from one place to another. However, in general terms there seem to be two main and closely related reasons – and a third, overall explanation - as follows:

- Neo-liberal ideology has, since the early 1980s dominated the development discourse. In this context, the notion of intellectually coherent intervention in the direction of development has been thrown into (unreasoned) question and hence no longer commands attention in politically relevant circles.

- The failure of most regional planning initiatives in the countries of the South (and, indeed, from the early 1960s also in the centrally planned economies) can be traced rather directly

---

[18] A major exception being the current construction of the Yangze dam in China which will displace over a million people early in the next century.

[19] Dag Hammarskjöld Foundation, 1975; Lo and Salih, 1978; Friedmann and Weaver, 1979; Stöhr and Taylor, 1981.

to the detachment of the planners from the experience and the felt needs of those for whom the plans were ostensibly being formulated and implemented. This resulted in a lack of political commitment and in time active resistance to planned initiatives and by extension to the planning exercises themselves.

- 'Planning' can be seen to have potential to solve many problems in the organisation, distribution and conservation of resources. However, its acceptance requires, in a situation where power resides in the hands of an oligarchy, that those involved see it in their interests to adopt some form of planning. Where power is more widely diffused, it becomes necessary for there to be a broader consensus that a particular approach to planning is acceptable because the outcomes promise to benefit a very broad constituency.

The discourse of the late 1970s and early 1980s might have led to a reorientation of regional planning that could have overcome the detachment of planners and planning from the planned-for. Indeed, some initiatives, since abandoned, were attempted in particular with the support of USAID under the title of 'integrated rural development' (IRD)[20] albeit continuing to neglect the full involvement of the planned in the planning process[21].

This approach continues to attract some attention and debate[22] that is discussed at some length by Adell[23] and which merits some further discussion later in this paper. Nevertheless, in the ideological atmosphere prevailing since the early 1980s the hopes of a new approach to regional development have been referred to as 'utopian'[24], with the power of the neo-liberal ideology and its underpinning of the growing political power of transnational corporate capitalism[25] marginalising any initiative aimed at promoting any very coherent approach to regional development. The central concern of corporate capital is to clear aside any structures that might restrict the freedom of capital to exploit markets and (territorialist) regionalism intends precisely to favour access to regional resources to those within the region in question.

We will see later in this paper that current EPM procedures, together with various versions of participatory community planning amount to a significantly different approach to planning from that which prevailed earlier in the century. In particular there is an insistence that the people for whom plans are made should participate actively not only in receiving the benefits of the planning process nor only in putting into practice the results of plans made by planners.

In brief: current EPM processes including in particular PAR and related methods and 'Local Agenda 21' require participatory processes to be established at the outset of the planning exercise, to steer the structure and content of planning and implementation. There are nevertheless lessons to be learned from earlier regional planning approaches relevant to an effective EPM for the peri-urban interface, which include:

- The political conjunctures and social agreements necessary to undertake successful planning at a more strategic level (the urban sub-region or wider region);

- The general technical considerations in terms of frameworks of knowledge and analysis that are necessary in order to bring regional resource and socio-cultural problems into focus and into a planning context; and

- A strategic approach to defining a path to sustainable development in the medium and long-term.

---

[20] Rondinelli, 1983, 1984.
[21] Koppel, 1987.
[22] Lazarev, 1994; Potter and Unwin, 1989; 1995.
[23] Adell, 1999.
[24] Gore, 1984.
[25] Stalker, 1995 Ch.10; Korten, 1996; Shutt, 1998.

4. NEW DIMENSIONS TO THE DEVELOPMENT PROCESS AND APPROACHES TO UNDERSTANDING THEM

In recent years the development trajectory and the mental frame under which it is being pursued have come to be presented in a new perspective in which two key terms have come to the fore - namely 'post-modernism' and, above all, 'globalisation'[26]. These two terms have spawned a massive literature. Whilst the importance of these concepts is taken here for granted, no very detailed attempt will be made to define these or to specify exactly how these should be understood in the present paper. A few salient points, however, need to be made.

Globalisation, interpreted as a progressive extension of commercial relations is not new. The Communist Manifesto of 1848 already referred to the dissolving properties of the extension of capitalism around the globe with the poetic phrase 'all that is solid melts into air'. Local relations of exchange and social relations of responsibility of the kind keenly studies by anthropologists gradually give way to a uniform set of exchange relations with money providing universal value. This clearly breaks down the walls of kin responsibilities and patronage relations – and more generally of 'local community' – (devaluing 'social capital') and opens up a potentially endless horizon of possible relations without boundaries.

This process has spread over the past two centuries (indeed some analysts see the process as having started much earlier[27]), with alternating periods of rapid and then less rapid extension. It is notable that during much of this century, the experiment with central planning, coupled with the efflorescence of social democracy in capitalist countries reduced the rate of extension of commercial relations, bringing the development process into more coherent planning frameworks[28]. It seemed for a while that another trajectory to (Eurocentric[29]) progress was possible.

From the early 1980s, however, with the triumph of neo-liberalism the pace of this process extension of commercial relations accelerated to a point where 'reality' and moral responsibility for the context of our actions seems to recede into insignificance and attention focuses increasingly on solving contingent, personal needs in a 'virtual' world which, in practical terms are solved – if at all - by a generalised and abstracted 'market'. In focusing on the spatial dimensions of the 'speed of change'[30] the peri-urban interface of the cities of the South seems to be at the forefront of these processes with, in many cases, a scale and a degree of incoherence that makes conceptualisation[31] and particularly the notion of a comprehensive planning framework extremely difficult to achieve.

The immediate problems of the poor (in terms of health and poor environmental conditions) and the unsustainability of large-scale formal developments in this peri-urban interface are rather obvious. However, if we accept the implications of the oft-expressed phrase that 'globalisation is inevitable' and that 'the post-modern condition' is a context within which we necessarily have to formulate decisions, then it would seem, prima facie, that little can be done to control the underlying processes, implying that that which can be done will accomplish no more than cosmetic changes.

The debates concerning regional development of the late 1970s and early 1980s posed fundamental questions against this frame of mind that have to be asked in each case if any

---

[26] A computer search of current titles in the library of the Geneva University Institute of Development Studies on the part of the author produced over 50 titles concerned with 'globalisation where the word 'regionalism' produced less than 15 titles, many of which concerned global, rather then intra-national regions.

[27] Dobb, 1946; Wallerstein, 1974.

[28] That these have fallen into disrepute is irrelevant to the fact of their demonstrated efficacy as a method of pursuing development as it was conceived in the 1920s and 30s, or to the potential for other forms of planned development processes.

[29] Atkinson, 1991; Mehmet, 1995.

[30] Harvey (1989) refers to this as 'space-time compression'

[31] See the conclusions to Adell's paper.

regional planning process (EPM relevant to the PUI) is to be effective. These include the following:

- What is the minimum knowledge necessary to establish the capacity of the region in question to supply the needs of the population and to distribute resources in a manner that serves all of its members adequately (in an equitable manner)?

- What kinds and levels of agreement are necessary to achieve a consensus on a planning process that will result in supplying the resources needed by the people of the region in question and which will be acceptable to the population as a whole?

- To what degree is it necessary to control the flow of resources in and out of the region in question to achieve the planned result?

- What is the minimum political agreement at a wider level (national, international) that is needed in order to undertake the proposed planning process and have the results accepted?

The fundamental nature of these questions is that, in order to establish an effective planning process, it will be necessary to confront the ideological context of 'inevitable' globalisation and the post-modern condition in the sense of defining limits that provide a platform for planning. This has concrete political implications of confronting, for instance, the rules of the GATT agreement with their insistence on 'free trade' that disallows local, regional or national restrictions on the movement of materials and goods (although decisions on the movement of people and capital remains to a degree within the powers of national and hence, depending on local laws, regional and local decision-making fora).

Such a confrontation is not without its advocates. On the one hand, there are those who question the wisdom of universal commercialisation on environmental grounds noting the possibilities for the extension of traditional forms of 'common property resource management regimes'[32] as a means of maintaining community control and responsibility over the use of local resources; this is, indeed, recognised by the World Bank[33] as a legitimate approach to resource management. On the other hand, there are many critics who see the need to radically confront and reorient the trajectory of economic globalisation as a prerequisite for solving the deepening problems of poverty, social dislocation, dysfunction and violence that seems to be spreading across the globe[34].

It can, indeed, be asserted that regional or local control over the generation, flow and use of natural resources as a general consideration is the lesser part of achieving a consensus on a planning process. An important, if not the main, focus of most of the of international and bilateral development cooperation agencies, and hence of the research programme of which this paper is a product, is oriented towards addressing the needs in particular of the poor. As noted below, much of the effort of current participatory planning methods is also directed at addressing the needs of the poor.

However, this is almost universally independent of any coherent analysis of the socio-cultural – and socio-economic – structure of the population as a whole and, above all, the distribution of power across this structure[35]. It is well-enough known that in recent years the poor have been getting poorer and the rich richer both between and within countries[36] and it is clear that this relates closely to the consolidation of political power – the power to take decisions – in the hands of relatively few[37] and the increasingly unfettered 'freedom' with which they can and do

---

[32] Berkes, 1989.

[33] Jodha, 1992

[34] Stalker, 1995.

[35] There has been some minor academic discussion of the problem of power relations in distorting the development process; see the case of the 'urban bias' debate discussed by Adell, 1999.

[36] UNDP, 1998.

[37] And it should be emphasised that concern with 'good governance' does *not* address this issue.

pursue their personal proclivities.

The standard measures of poverty are economic. Many countries of the South adopt an official poverty level that relates to a minimum income. However, as discussed by Allen et al[38] poverty involves many variables. Indeed, lack of money can be seen as a result in, arguably, most cases of a loss of cultural identity[39] resulting from changes in village life or migration. The inability of the poor to engage effectively with the social, political and economic rules of 'modern' society results in their exploitation and in the ability of those in positions of power and authority to disregard their needs.

In this context, as emphasised by Allen et al, environmental problems generated and suffered by the poor in the peri-urban interface are part of a complex of problems relating back to economic, social, political problems and ultimately problems of cultural change. It is therefore necessary in devising principles and components of an appropriate EPM process for this context to ensure that it addresses the underlying issues and problems and does not merely go straight to the environmental issues in the vein hope that these can be solved via simple technical solutions. Those problems and issues need to be looked at in the round and not just partially (e.g. at relations of power and access to resources as a whole and not just at the deprivation of the poor).

5. A CRITICAL LOOK AT NEW APPROACHES TO EPM

The intention of this section is first to look critically at recent (procedural) approaches to EPM relevant to the PUI. This is followed by a review of recent contributions to the regional planning discourse that attempt to take account of current conditions. The PUI research project, to which this paper is a contribution, has been exploring the potential of methodologies developed for the mainstreaming of gender concerns into the planning process and these are considered next. The section ends with a discussion of the main problems that face the introduction of an effective EPM for the PUI in relation to cities of the South that adequately addresses the needs of the poor and, in this context, models of change and how these might help in the design of an adequate planning process.

5.1A Critical Look at Recent (Urban) EPM Processes:

Earlier papers produced by this research project[40] have looked in detail particularly at the EPM procedures devised and supported by the international agencies. The main initiatives reviewed are the Sustainable Cities Programme (UNCHS)[41], the Urban Management Programme (UNDP and various bilateral agency funded, executed by the World Bank and UNCHS)[42] the manual produced by the International Council for Local Environmental Initiatives (ICLEI)[43] and also the work of the German Agency for Technical Cooperation (GTZ) in Asia[44].

No attempt is made here to describe again the differences, however, it may be deemed useful to present briefly a generalised summary of the procedures which these generally recommend. The main point, indeed, to be made is that there has been an widely-held assumption that a new set of planning procedures which involve the participation of a wide range of stakeholders throughout the planning decision-making process, will overcome the problems encountered in earlier years by the closed, technocratic and top-down approaches to planning. A sequence of activities generalised from the above programmes – and from many documented and undocumented urban EPM initiatives – looks, arguably, like this:

---

[38] Allen, da Silva and Corubolo, 1999.

[39] Stalker, 1995 Part II.

[40] Budds and Minaya, 1999; Minaya, 1999; UofN/UofL. (1999). The first of these papers can be found on the same internet site as this paper.

[41] UNCHS/UNEP, 1997.

[42] Bartone et al, 1994.

[43] ICLEI, 1996.

[44] GTZ, 1993.

- A consensus is reached across the community and/or municipality between all key stakeholders to undertake a sustainable development planning and management process (this can take the form of one or more workshops or the establishment of a more permanent forum or committee); the first task is to establish aims ('vision' and 'mission') for the sustainable development planning and management process;

- An investigation (using participatory methods) is carried out into the main (economic, social, environmental) problems faced by the community; these are then prioritised by consensus with a view to addressing them in priority order.

- Alternative solutions to the priority issues are worked up, possibly through working groups of experts and interested stakeholder representatives;

- Tasks are allocated between the local authority and other stakeholders in the form of partnerships, with resources and specific responsibilities being allocated to the most appropriate partner or stakeholder group;

- Action is taken, monitored by working groups or the forum; where action is inadequate to solve the problem, new initiatives are organised.

- Following the solution to the initial problems, new problems are identified and plans made to solve these.

In fact, initiatives of these kinds, increasingly implemented under the title of 'Local Agenda 21' (LA21) are being carried out in a very large number of localities with or without external assistance. Already at the end of 1996, a survey carried out by ICLEI[45] revealed over 1,800 LA21 or other local EPM processes under way. Only 132 of these were in cities and sub-regions of the South but these were developing rapidly and we might expect the current number of such initiatives to be at least several hundred. The international journal *Local Environment,* in part sponsored by ICLEI, carries regular articles on the state of LA21 processes in various countries and the problems that these are encountering. In practice, each attempt is approached in a different way and encounters its own problems. However, three general problems with these initiatives can be identified as follows[46]:

i) The identification of relevant stakeholder groups and the formation of partnerships has hitherto been too simplistic. There has been a presumption that it is adequate to draw clearly defined constituencies such as elected councillors and local authority departments, NGOs and academic institutions, private sector interests and religious organisations into the negotiating process. At the level of the community (RUAs etc.) there have been some more serious attempts to involve key local community interests that may be closer to the 'grass roots'.

However, the deeper political problems associated with the nature of existing power relations at the municipal level and even in cases that explicitly focus attention on poor communities have been almost universally disregarded or avoided by recent EPM exercises. It is clearly problematic for externally-financed and assisted programmes to intervene in areas that are seen to be 'political' or 'internal matters'. In most countries and local communities there are particular sensitivities where there are deeply enculturated inequities that are ready to generate violent reactions where they are challenged. These include such well-known cases as the condition of women in many Islamic societies or of the lower castes in India or the landless poor in many rural areas of Latin America. But every community possesses structures of inequity where the disempowered remain silent and unorganised or disorganised (no overt constituency to invite into a stakeholder partnership)[47].

---

[45] http://www.iclei.org/la21/la21rep.htm
[46] These derive from the author's experience.
[47] A seminal analysis of how the powerful maintain the silence and disorganisation of the powerless was

Direct attempts to change the political stakes under these conditions are likely to be counter-productive (e.g. lead to rejection of the initiative in a situation of increased vigilance on the part of the powerful[48]) and so approaches have to be more oblique. The point is, however, that hitherto LA21 and related EPM procedures have tended not even to recognise the depth and seriousness of inequities and hence not taken the solution to these – as the very foundation of poverty – as part of their remit.

There is, however, a separate tradition of community development work amongst the poor in the South with significant experience[49] from which new approaches to, and initiatives in, EPM need to learn. In addition, a relatively recent addition to the toolbox of EPM processes that grows out of a recognition that solving environmental problems involves some redistribution of benefits and hence leads easily to conflict is a procedure known as 'environmental mediation' or 'conflict management'. In the first instance this has tended to be used as a means to resolve conflicts between environmental NGOs and proponents of potentially damaging projects[50].

However, it is clearly possible to adapt the procedures to manage conflicts between the poor and those powerful interests who take decisions that keep them powerless and in a situation of insecurity.   So far both 'community empowerment' and 'conflict resolution' methods have been restricted to particular communities and developments with no attempt at a more strategic approach to analysing and confronting social inequities as a whole. It can be argued with some force that this is an area where some attention and effort is due.

ii)   The emphasis in recent EPM processes on listening to local wishes and identifying immediate problems ('visioning' and 'prioritising') has resulted in longer term environmental (resource) sustainability being disregarded in any meaningful way. There has been a great stress on organising EPM processes in a participatory manner and, indeed, of ensuring that many voices that have never been invited before to participate in planning are heard.

Experience particularly in countries of the South has shown that there is a major educational (awareness-raising and capacity-building) exercise – that must include revision of incentive structures particularly for local government officers - that has to be undertaken before the different constituencies can even talk very coherently to one another about substantive issues, given the way in which they have been used to discourse relevant only to their own activities. It is clear that the general opening up of an effective democratic process must precede any very effective reconsideration of the planning of a community, a city or an urban sub-region.

However, the tendency has been to assume that opening up democratic discussion will automatically lead to a concern for sustainable development that will translate into plans and activities that will achieve sustainable development.   Unfortunately, an unguided opening of democratic processes elicits demands in the first instance around immediate concerns without consideration of their longer-term sustainability.   These immediate concerns may be prima facie perfectly legitimate – for instance solving problems of water supply, sanitation and access in poor neighbourhoods. However, the particular solutions found to these may well make demands on resources that are unsustainable in the medium term (classically in so far as the poor aspire to middle class lifestyles). There are two components to the solution to this problem as follows:

▪   It is clearly necessary for the educational process to include key questions relating to what may or may not be sustainable; this can be carried out (though there are very few cases where this has been seriously undertaken) in the context of a local 'sustainable development strategy' (including an analysis of the environmental resources and an

---

presented by Lukes, 1974.
[48] A rather well-known case is described by Max-Neef, 1989.
[49] Rahman, 1993; Wignaraja, 1993.
[50] Martin and Hamacher, 1997.

overall strategy for managing these).

- Many sustainability problems cannot be solved at the local or even the city level as they involve the use of resources that necessarily come from a wider area; this implies the need for an EPM process that is articulated into various geographical levels that interact with one another such that local plans produce projects and programmes that are within the 'carrying capacity' of the city and sub-region in which they are located.

iii) EPM initiatives remain predominantly outside the mainstream of either government or private decision-making and the results remain marginal to the development process as a whole. Although 'environment' and, indeed, 'sustainable development' have become important terms in the policy debate almost everywhere, in practice, the authorities responsible for planning and managing these remain marginal. Almost universally, it is environment ministries and local authority environment agencies that are given the responsibility of ensuring that development is sustainable. Equally universally, these agencies have taken up rather particular issues, often in relation to international agreements.

In so far as they have developed a more general strategy, this is mainly in response to Agenda 21 and hence in the form of a major document which, however, has little influence on the decisions of ministries, or the private sector, that are responsible for the investments that are the real machinery of development. There seems to be a long way to go before the new participatory planning processes are allowed to influence the mainstream allocation of budgets or investments of the private sector. Nevertheless, this has to happen if LA21 and other EPM processes are to be either effective in changing direction towards sustainable development or, indeed, at all worthwhile.

5.2 A Critical Look at Recent Contributions to the Regional Planning and Management Discourse:

Although the regional planning and management discourse is currently rather low-key and fragmented[51] there are nevertheless certain aspects that need to be raised here again (see Adell[52]), as they speak directly to any attempt to construct an EPM process (principles and components) relevant to the PUI.

The main concern of the current discourse is to ensure that any actions proposed (by any actor or group of actors) be related to the realities of the present. On the one hand this means assembling information on rural-urban, and small urban to large urban linkages where, on the whole, this is lacking. Researchers, whilst often recognising that there are different kinds of cities and hinterlands (as discussed in Part 1 above), generally take just one as a basis for proposing models and theories as a basis both for research and for possible intervention[53]. At this point, little is said about intervention in clear recognition of the present taboo upon thinking in very concrete terms about institutional means to contradict globalisation at the regional and local level.

Most effort has gone into attempting to build models concerned with achieving an effective interaction of small and intermediate towns with their rural regions, as a means to overcome rural poverty but also to counter the growth of urban poverty. Douglass' (1998) 'integrated networks of dynamic centres' can be seen to revisit the tradition of 'central place theory'[54] whilst

---

[51] Authors such as Douglass, Cour and Lazarev do not cross-reference one another's work even though it is in agreement on many key issues of what a regional planning and management process should be about.

[52] Adell, 1999.

[53] It would seem that the main reason for this is that the writers concerned have substantial experience of only one situation – be it the Sahel or Southern Africa or South East Asia.

[54] Douglass has from time to time reformulated his concern for rural-urban interactions, since his seminal work with John Friedmann in the 1970s (Friedmann and Douglass,1978).

aiming to overcome the difficulties encountered in earlier planning exercises (the USAID experience) and address current conditions in South East Asia. In particular, existing research shows relatively little interaction between villages and larger towns with clear possibilities for development, applying effective measures. For West African conditions and growing out of an entirely different intellectual milieu, Cour (1998) and associates are looking to develop rural urban linkages towards the mutual benefit of rural and urban populations in a very similar manner.

Unlike the debates in the late 1970s and early 1980s (involving many of the same discussants), the need to confront the 'backwash' of globalisation is now rarely discussed by those proposing these models. This would seem to relate to the force in the belief in the inevitability of current economic globalisation (neo-liberal economic policies) and hence the silence with regard to proposing mechanisms that will support local and sub-regional development against the increasingly violent fluctuations and changes in direction of the unfettered global economy (for instance the dramatic collapse of the South East Asian currencies following exchange rate deregulation in July 1997).

The megacity regions seem to pose an insuperable problem for the theorists of a reasonable regional planning process. With the exception of the fashionable, but oblique, suggestions of the advocates of 'ecological footprint analysis'[55], discussion of the possibility that the megacities may be inherently unsustainable in the medium-term future seems to be taboo[56]. Discussions of the megacities, however, whilst recognising major problems both in the inner cities and the extended regions, focus attention on contingent solutions, rather than confronting the problematic as a whole. This is generally unuseful from the point of any attempt to devise an effective EPM process for the PUI of megacity regions that aims at a genuinely sustainable development.

It should be clearly understood that regional planning is moribund or has been abandoned altogether in most countries of the South today. The initiatives referred to in this section are largely academic in nature and the lack of concrete proposals regarding institutionalisation relate directly to the lack of interest in government circles in creating or maintaining institutions that would promote regional planning. Major hope seems to reside in many quarters in the gradual strengthening of participatory forms of planning. Although currently almost entirely restricted to the community level, the expectation seems to be that in time these will be articulated in such a way as to be capable of planning for whole cities and sub-regions. But how this might happen remains unexplored.

5.3 A Critical Look at the Application of 'Gender Mainstreaming' Method to EPM

Levy[57] has developed a methodology for use in mainstreaming gender in the context of development programmes which she refers to as the 'web of institutionalisation' and which has been found useful as a tool within the context of this research programme. There is inadequate space in this paper to explain the web and its function in much detail beyond noting that it provides a basis for development workers and those affected by development programmes to become systematically more conscious of the gender implications of their programme or project with a view to the programme or project overcoming the systematic gender biases that reside in many if not most development projects and programmes. It need not be used only for gender mainstreaming but also for making conscious the roots of discrimination for disadvantaged groups generally.

The methodology is iterative, providing a step-by step process that can be repeated three times, once as a means of diagnosing the situation or context in which the target population finds itself;

---

[55] Wachernagel and Rees, 1996.

[56] Atkinson, 1993: this article on the possible unsustainability of the Jakarta metropolitan region, although known to the discussants of this region (Douglass, Firman and others) remains undiscussed in the ongoing debate.

[57] Levy, 1996.

once as a framework for formulating problems and opportunities; and a third time as a basis for identifying entry points for change. The web indicates the interdependencies of different components of the institutional landscape and clusters 13 variables under four general headings which are respectively: the citizen sphere, the policy sphere, the organisational sphere and the delivery sphere.

Used by the PUI research team, the web has provided a means to identify questions that need to be asked with respect to the development of a relevant EPM for the PUI *in so far as it is concerned with social, economic and political questions*. However, ultimately the purpose of the web is to provide a framework to articulate a process of awareness-raising leading to effective expression of the needs of men and women in the development planning process, without prejudice regarding the themes that might arise in the course of the planning process or the nature of the programmes and projects that might be demanded by way of output.

Clearly a major 'hidden agenda' of the method is to make evident the inequities in existing social relations, institutions and development processes and to provide a basis for these to be challenged without direct confrontation (e.g. around particular development programmes and projects). It is nevertheless possible to use the web without arriving at any criticism of existing relations or functions and it is therefore necessary for the facilitator in workshops where the method is applied to be aware of the purpose of the method and to steer the use of it such as to elicit the necessary critical information and proposals.

In reality, mainstreaming gender awareness is not the same as making plans for sustainable development. Practice in using the web would seem to lead to the conclusion that it can either be used as a sub-method or tool in the context of an EPM process or it can be reconstructed such as to be fully integrated into the EPM procedure.

5.4 Confronting the Impediments:

Allen et al. (1999) have identified the main environmental problems – and potential opportunities - arising in the peri-urban interface under four general headings[58]: land use changes, use of renewable and non-renewable resources and the generation and disposal of urban waste and pollution. As we have seen, these are underlain by social and cultural structures and assumptions that greatly increase the complexity of solving problems of realising benefits for the wider society and particularly the poor (the few who possess wealth and power use the opportunities to their own ends at the expense of the majority). Two issues need to be 'unpacked' and emphasised as follows:

- in the periphery of cities – often reaching well into apparent 'countryside' - major decisions are usually taken by relatively few people comprising land-owners and developers of large installations (real estate, industries, recreation facilities, etc.). Even where the land was once co-owned by villagers or owned individually by many smallholders, the development of the urban periphery is preceded by a process of land speculation that consolidates it in the hands of a few. In many countries, beyond the 'speculation belt', land is in the hands of large landowners who, again, are in a position to determine what should be done with the land, usually with little or no accountability to any broader social or political entity.

  In a few countries, government ownership of land gives certain civil servants the prerogative of land owners with, in most cases, little or no machinery for ensuring that their decisions on how the land should be used are accountable. Although there are many compromises to be made – such as with government officers and in some cases the better-organised poor (around some cities assisted by 'pirate' developers) – the main lesson is that the most important decision-makers, whosoever they are, have to be discovered and involved in the planning process if it is to make any headway. 'Involvement' may mean confrontation or negotiation.

- Most, if not all, participants in the processes under way in the PUI (changes in village life,

---

[58] Allen et al, 1999.

developments, movement of resources, etc.) are ignorant of most of the consequences of what they are doing. Each participant or category of participant have their own goals and conception of what they want to achieve and how to go about this. As already noted, poverty in the PUI can be interpreted as an inability to understand and/or engage effectively with the resources that are yielded by activity in the PUI. However, it can be said that many actors who do engage effectively (be it developers of industries or waste disposal authorities, market gardeners or transport undertakings) create, arguably, more problems for the sustainable development of the PUI than do the poor.

So the second prerequisite for an effective EPM in the PUI is to provide information and educate all actors into the wider consequences of the changes which are coming about through changed outlooks and related activities, including, importantly, changed consumption patterns. But this should be associated also with more coherent pictures of what might be realisable with given changes in the way the various actors and stakeholders go about their activities.

5.5 Models of Change?

This leads to a notion that the EPM process might be most effectively pursued within an intellectual context of models of change or 'scenarios'. Over the years social scientists have constructed models of what they assumed to be the trajectory of social change with which we are confronted. The most famous 'model' is obviously that of Karl Marx, with his vision of a communist future that had an incalculable influence on what actually happened (albeit not in fulfilment of the model). The models of the liberal social scientists of the second quarter of the 20th century, such as Talcott Parsons and Daniel Bell that envisaged an increasingly educated and affluent society also had their era of influence. Many other such scenarios have been constructed starting from the mid 17th century and reaching a significant level of popularity in the 1960s and 70s. It might be said that all failed miserably to predict what happened in practice – this is seemingly the view that informs the post-modern condition. But there can be no doubt at all that social (and economic, cultural and political) changes are taking place in every corner of the world at an extremely rapid rate and that these do have some kind of structure to them. The problem with 'metatheories of social evolution' is that they become battlefields between those who see them as a positive vision and those who will do everything in their power to ensure that they do not come to pass. The trick would seem to be to achieve a grand vision of a future that works that, at the same time, is subscribed to by a broad consensus. At this time there seems faint hope for this in a world descending increasingly into conflict over alternatives ideas of what is right and good.

A further variant was, during the 1960s and 1970s, the production of 'scenarios' as the basis for technocratic planning exercises throughout the industrialised world. These, too, have fallen into disrepute. And yet no realistic planning exercise can be undertaken without some assumption about the future into which the planned activities and objects are to be inserted. It is rather unfortunate that planning exercises today (whether or not they carry the name 'planning') make unconsidered assumptions about the kind of future into which the planned activities and objects are to be floated.

It may be that we are too frightened of the future to dare to build scenarios: continued 'megatrends' threaten to give us an increasingly insecure, conflictive and unsustainable world so let's not think about it[59]! Certainly the result of this apparent reluctance results in very many decisions being taken - about resource supplies (particularly energy) and location of urban developments, about expansion of production of particular consumer items (particularly automobiles) and the quality of items produced – that are clearly questionable from the point of view of sustainability.

It is true that 'visioning' is an accepted part of EPM procedures that should lead to an understanding of what constitutes a sustainable future. However, as currently undertaken, these exercises are no more than a brainstorm ending in an articulation of the wishes of the

---

[59] Council on Environmental Quality, 1982.

people involved regarding the future – indeed usually having little by way of genuine imagination ('we will plant a lot of trees and recycle our waste'). What is implied here is that there is a need to envisage much more than what is desired: there is a need to come to terms with what is in process of unfolding and to be able to 'bite the bullet' where it becomes evident that what has been happening over the past years has to be undone and not merely modified at the edges.

This is not yet the place to put forward any specific scenario. Each EPM exercise needs to do that for itself in a fully participatory manner. But it can be said that a scenario-building exercise at the community level is more likely to come up against locally-insoluble problems with respect to sustainability and that it is only at a regional level that it is possible to start to solve many of the most intractable problems concerned with resource exploitation and flows. It is also likely that 'conflict resolution' at the local level will only start the process of a consensus for a sustainable future and that this will also need to have city-wide and regional dimensions. Furthermore, there is a need to come to terms with problems of economic globalisation through a critical view of the inherent loss of ability to put a halt to the unsustainability of much current practice that inevitably results from 'leaving it to the market'[60].

6. LEVELS OF INTERVENTION OF THE EPM PROCESS IN URBAN SUB-REGIONS

Much has been written earlier in this paper about the fate in recent years of regional planning as a potential framework for EPM in the PUI. In addition a relatively critical look has been taken at the 'mental frame' and ideological and political underpinning of the development process today at a strategic level (economic globalisation/neo-liberalism/corporate hegemony and the 'post-modern condition').

The key question is: to what extent is an EPM process in the PUI prepared to intervene to steer or control the development process? It is well-enough known that neo-liberalism is fundamentally anti-planning (albeit corporations could not survive without rigorous internal planning processes). The possibilities need to be explored in terms of a 'hierarchy of intervention' and a view taken as to how far the EPM process should go beyond current convention. Crudely speaking we might recognise three possible levels of intervention as follows:

- Amelioration of local conditions through agreement and self-help amongst local communities;

- Planning and controlling flows and the use of resources in and through cities;

- A regime of regional self-reliance.

This hierarchy can be elaborated to indicate those aspects of environmental planning that are already standard practice and those which are less common or which will necessitate new kinds of initiatives.

- *Community development in poor communities:* there is now much experience of intervention at the community level to improve health conditions, implement small-scale economic initiatives and so on. These initiatives rarely, and then only in a minor way challenge existing power relations (and hence fail to address the causes of poverty); nor do they address the question of sustainable development.

- *Land use planning (LUP) in the urban periphery:* the European experience of controlling the expansion of urban areas and managing the resources of the PUI in a relatively effective and efficient manner has not been repeated to any significant degree in countries of the South. In principle LUP provides a ready-made methodology. However, new approaches

---

[60] Shutt, 1998.

would have to be taken to achieve a consensus amongst key stakeholders and actors to participate in and respect plans if this is to work. Adaptations such as Guided Land Development have not been a notable success. The possibilities, however, of improving the level of success of land use planning in the urban periphery are by no means exhausted.

- *Management of key resources in the urban sub-region:* the sourcing of materials for, and disposal of wastes from, cities are a key concern for EPM in the PUI. The experience generally is that certain key materials are planned for whilst others are left to private initiative and happen in an uncontrolled manner.   In both cases the social and environmental impacts are generally inadequately considered. Looking at key resources is instructive:

  - **Water** supply is generally managed by public agencies and, because it is an essential prerequisite for urban living is usually planned for in a more or less coherent way. The disposal of wastewater being, however, of less interest to the urban population, is, in southern cities, usually disposed of with little or no planning. Flood control, although of importance in many cities of the South in consequence of the geography of the cities, nevertheless remains poorly planned.

  - **Solid waste** disposal is generally un- or under-planned for and is a major area of conflict in the peri-urban interface because urban waste is usually carried to the periphery and dumped in areas which affect those living or otherwise engaged in these areas.

  - Cities rely on significant – larger cities on massive – inputs of **energy**. 'Formal' energy supply (electricity and sometimes other fuels) are managed by government or private monopolies or oligopolies (in the case of petroleum) while 'informal' energy supply (fuelwood, charcoal, sometimes also fossil fuels for cooking) are generally supplied by small entrepreneurs. The planning of energy supply to cities, although by now possessing well-developed methodologies[61], has had hardly any attention in cities of the South[62], although it is a major sustainability issue with no city able to assert that it is currently consuming energy in a sustainable manner. Control of the flow of energy resources by large corporations intent upon selling more, rather than reducing need, is a major problem.

  - The supply of **food** to urban areas is traditionally a major function (extensive areas) of the peri-urban interface and in poorer cities this remains the case. Changing tastes and the means to indulge them lead to importation of food from increasingly greater distances and/or the growing of exotic plants under conditions of intensification that is in many cases environmentally damaging (over-use of chemicals; large areas of greenhouses lit all night using fossil fuels). These activities are entirely organised by the private sector, in the South without planning and with little information on trends or impacts and little or no control over damaging activities.

  - The supply of **building materials** to cities is in many cases an environmentally damaging activity of the peri-urban interface. In the South this is universally organised by a fragmented private sector with little or no control on the environmental impacts. Ironically, the richer the city, the less the immediate impact on the per-urban interface. However, this is a consequence of importing materials from further afield which may be damaging to more distant land and in most cases makes significantly higher demands on energy consumption.

  - **Consumer durables** were once mainly locally produced: clothing, containers, tools, jewelry – and today electronic goods, vehicles and so much upon which 'modern life'

---

[61] Some European municipalities engage in local energy planning and in Scandinavia this is obligatory.
[62] The EC has assisted some municipalities in Asia and the Southern Mediterranean to generate local energy planning processes.

depends. Now there are few places where more than an insignificant proportion of these are locally produced. Rather they are mass produced in increasingly concentrated areas and factories and distributed round the world. The environmental and social impacts of this process of concentration and the energy required to maintain the flow of goods remain entirely outside almost any frameworks of analysis[63]. And yet this would appear, prima facie, to be the Achilles Heal of the sustainability problematic.

In summary, some aspects of resource management are already accepted as requiring effective planning and management, albeit in cities of the South there remain problems with the effectiveness of these systems. Other resources are assumed to be the responsibility of the private sector and as such are not the subject of planning. This being the case, generally there is little information on content and flows and hence on social and environmental impacts. Although the supply of resources is clearly central to the problematic of sustainability, so far little work has been done to create analytical frameworks and even where these exist (e.g. in the field of local energy flows and use) they remain almost entirely unused. Clearly there is little point in applying them, however, unless there is also the political will to use them for purposes of planning and managing resource flows to achieve sustainability.

- *Building the 'Social Economy':* Whilst materials and goods consumed in cities and their sub-regions are increasingly produced elsewhere, resulting both in a loss of control over supply and high levels of un- and underemployment, there nevertheless remain areas of the economy that are necessarily local. These include social services and certain productive activities (e.g. the baking of bread, the mending of clothes, etc.). The reversal of globalisation means moving back up the line of locally-produced goods and services. In order to do this, it is necessary to gain the understanding of the structure of local economic activity and the agreement of the community to want local (well-produced and reasonably priced!) produce and products rather than the exotic and the imported. It then requires the political will to 'tilt' the economy through taxes and tariffs and quotas, the financial support of local economic activities (small and medium enterprises) and other relevant mechanisms. The payoff is additional local employment and a more stable local economy as well as the capacity to be able to ask pertinent questions about sustainability and, as necessary, to take effective action to achieve it.

- *Socialisation of resources:* Having gained a negative reputation under communist regimes, where resources were ostensibly owned by 'the people' but in practice the fiefdom of bureaucratic empires, the social ownership of resources has been relegated to the political margin. However, in the form of 'common property resources regimes', the issue is gaining a new angle that has great relevance to the problematic of sustainable development. As yet the literature discusses this in terms of examples of how particular communities control the use of particular resources[64]. As a systematic approach to bringing local responsibility to bear on the problem of the sustainable exploitation and use of resources it has great relevance.

- *Controlling the exploitation, movement and use of resources:* Within the present international political regime (the GATT agreement) most resource flows are left to the plans of the private sector and as such out of reach of any effective social planning or management. As noted above, some frameworks to analyse resource flows exist and could be further developed if there were an incentive in the form of the effective mechanisms for social control of resource exploitation, movement and use. Whilst it might seem far from the direction the world is currently taking, it is nevertheless a vital aspect of gaining control in such a way as to be able to achieve sustainable development. Such a regime of control is

---

[63] 'Ecological footprint analysis' aims to provide a crude framework for analysing resource flows into countries and cities pointing towards the sustainability problematic. The Wuppertal Institute in Germany has done some interesting research into the origin of inputs into selected food products, including the packaging. In principle, 'input-output analysis' (a method originating in the 17th century for analysing economic flows through a region) could be used for this task but has so far gained no significant following.
[64] Berkes, 1989

really a prerequisite, however, for an effective EPM process that will address the roots of the problems experienced in the PUI.

- *Regional self-reliance:* Controlling the movement of resources can only completely bring sustainable development within an effective planning framework if the regional population has political control over the resources in a situation of consensus – i.e. where the grounds for conflict - inequality, religion, ethnicity, etc. - have been minimised or eliminated. This means, beyond control per se, a geographical limit within which self-reliance can be practised such that there is no unsustainable exploitation of resources at some distant place on which the city and its region are reliant and which will cause stress if and when the resource is no longer available.

- *Adaptation of culture to the regional environment and resources:* In the past cities and regions were self-reliant. People lived everywhere but their lifestyle was adapted to, and compatible with, whatever was available by way of resources in the immediate region[65]. This compatibility between lifestyles and the regional 'carrying capacity' needs to be revived. This is, however, far from any advocacy of a 'return' to past conditions: much has happened in the 'modernisation' process – particularly concerning the technological development - that is perfectly compatible with a sustainable future. The point of EPM must ultimately be to achieve a culture that is happy living within the limits of the region and knows how to do so with imagination.

The EPM process will obviously differ according to the level in this hierarchy at which the process is aimed. One approach would be to start at the beginning and work up the hierarchy in a matter of years: a kind of upward spiral whereby each new step learns from the successes and failures of the previous step. In the principles and components set out in the last two sections of this paper, the presumption is that the planning process would already have reached an intermediate stage: this is no longer simply a matter of self-help or empowerment of poor communities, but is already concerned with regional resource management. It is not yet, however, a coherent approach towards regional self-reliance and certainly not yet concerned with adapting lifestyles to the regional environment and resource base ('bioregionalism'[66]).

7. SOME POTENTIAL PRINCIPLES FOR EPM RELEVANT TO THE PUI

On the whole, the new approaches to EPM have dispensed with any very articulated principles[67]. They have tended to be organised under very general objectives and then become involved immediately in specific procedures incorporating principles in the form of presumptions. This is not to say that the procedures are wrong, but that they could afford to be considered in a more articulated way with respect to the principles under which they should be operating – in particular to address the generalised failures of the methodology identified in part 5 above.

In the case of EPM for the PUI, the variety of conditions, and hence the potential variety of approaches that might be relevant to these conditions, requires, prima facie, some consideration of general principles that will enable a procedure to be constructed which is relevant to the particular situation. It has been suggested that these principles be formulated under the interrogative headings of: Where? How? What? and Who? and this section makes proposals under these headings.

7.1 How?

i)   Communication strategy - Awareness-raising

- Openness of communication and adequate financial resourcing of the means of

---

[65] There is a very considerable anthropological literature on this subject. Start with Steward, 1976.

[66] Atkinson, 1992.

[67] Minaya, 1999 notes that the GTZ EPM process for Thailand did generate ten principles to be borne in mind in generating and implementing a local EPM process.

communication to ensuring adequate dissemination of information at every stage in the planning process;

- Advertising ahead of the planning process in diverse ways in order to alert all stakeholders to the pending process and the role they can play in it;

- Asking the right questions about the information needed by the planning process (participatory issue analysis);

- Provision of information in easy stages and at a level that encourages (self)education in technical aspects of the planning process and in the key problems to be addressed to all stakeholders (including those without formal education);

- Incentives to encourage self-education and participation particularly of underprivileged groups.

ii)   Achieving a consensus decision-making process:

- Involvement of all evident stakeholder groups and actors in the EPM processes from the outset;

- Equality achieved amongst participants in all fora and events (which will require a strategy to draw out 'silent' voices);

- Conflict resolution methods used as appropriate;

- Use of approaches and procedures that make evident inequities in terms of wealth and power and where relevant other, culturally embedded, variables and encourage action to combat inequities;

- Openness in the decision-making structures and procedures to allow for new groups to emerge and join the planning process;

iii)   Articulation of the planning and management machinery:

- Participatory EPM processes relevant to each level at local, municipal (or city-wide) and sub-regional levels as relevant to the particular PUI situation or sub-region;

- Participation of relevant stakeholders and actors at each level and interaction between the decision-making structures at each level;

- Formalisation of decision-making only as far as necessary to ensure continuity and responsibility (open meetings and events);

iv)   Step-wise planning process:

- Building on existing planning processes where relevant and ensuring that EPM is part of, or supersedes, mainstream planning;

- Adapting EPM procedures tried elsewhere in a flexible manner but ensuring a clear and easily followed structure to the process;

- Training-by-doing of stakeholder and actor representatives in planning procedures;

- Iterative procedures with new initiatives following once earlier initiatives are under way or adjustment of earlier initiatives that are falling short of objectives.

7.2Where?

i)   Defining the PUI:

- Categorising the city, its hinterland and adjacent sub-regions to determine the type of PUI;

- Public debate regarding the extent/limits and level of formalisation of the planning process appropriate and acceptable;

- Negotiation between stakeholder groups and actors (including central government) regarding the level of cooperation/collaboration of jurisdictions in the planning process;

- Articulation of the planning process in accordance with the decision concerning extent of the PUI planning area and the level of involvement of participating jurisdictions (iii above).

7.3What?

i)   Awareness-raising:

- Seeking the most appropriate media to transmit particular categories of information (television, radio, printed matter, traditional theatre, etc.);

- Appropriate use of expertise but without special status;

- Debating/negotiating/planning fora supplied with relevant information and with expert facilitators;

- Events to involve the widest possible participation in actions;

ii)   Formal decision-making apparatus:

- Articulation of the decision-making organs established to undertake the planning process to ensure wide participation and information dissemination but also efficiency in identifying issues and formulating plans and actions.

- Rules and procedures to be adopted in order to ensure continuity and responsibility;

- Formal articulation with existing local and regional structures of planning and management (to guard against cooption but to ensure effective influence);

iii)   Planning process:

- Planning context to be established before detailed planning and reviewed from time to time: scenarios, visions, information on the state of the environment including resource accounting; stress on coherence;

- Educational process on sustainable development integrated into the planning process (training and brainstorming workshops, application of analytical tools, etc.);

- Generation of priorities within the participatory planning process (no pre-judging of problems/themes);

- Articulation of themes in the context of 'working groups' using experts who, however, have no special status or privileges.

- Public involvement in evaluating proposals.

iv)   Actions:

- Tasks shared by different stakeholders and actors cooperatively;

- Structured monitoring and evaluation process involving both self-evaluation and evaluation by decision-making/planning fora.

7.4 Who?

i)   Stakeholder groups:

- Fora open to all but with different rights for different categories of participant (voting, speaking, etc.);

- Ongoing proactive seeking to include 'silent' voices of the underprivileged in the planning process;

- Specific awareness-raising strategies and programmes for different groups aimed at raising capacity to participate effectively and to overcome dominance of the powerful and articulate;

ii)   Actors:

- The role and status of non-stakeholder participants should be well-defined;

- Independence of local government decisions from central government (pursuit of decentralisation);

- Education of experts in adopting a role of analysing possibilities rather than proposing solutions.

The foregoing principles prefigure a certain planning process that is based on existing EPM procedures as discussed in earlier PUI research papers. At this point they are presented for discussion and may be modified and/or elaborated on in subsequent stages of the research. Possibilities include:

- Elaborating different principles for well-defined PUI conditions (megacity regions, networks of rural towns, etc.) which need to be developed as 'models' in the next phase of this research programme;

- Elaborating specific principles for planning processes in discussion with actors in the pilot cities of this research project (Villamaría, Kumasi and Hubli-Dharwad – but also further pilot cities to be selected in the following stages of the research);

- Elaborating principles for different levels of the hierarchy of intervention sketched in section 6 above.

8. POSSIBLE COMPONENTS OF AN EPM SYSTEM RELEVANT TO THE PUI

The terms of reference for this paper call for the components of an EPM system relevant to the PUI (and more specifically the needs of the poor) to be analysed under the interrogative headings *Where? How? What? Who?* Components, however, are basically a question of 'what'. it should be further noted that although EPM has been developed in recent years as a 'kit of parts', the underlying concern has been to develop 'a holistic planning *process'*. Focusing attention on the components – essentially the lumps within the process – thus presents the

danger of undermining the dynamic side of EPM and presenting it, rather like conventional urban planning methodologies, as no more than a concatenated row of things to be done in order to arrive at a plan.

Bearing this danger in mind, the following paragraphs nevertheless present a list of components of an EPM process that is deemed to conform to the principles set out in the foregoing section. It should be stressed, however, that in further stages of the PUI research more emphasis should be placed on the *process* of EPM and the way in which this moulds the components to the particular situation in a dynamic way.

- *Communication Strategy:* this should involve sub-components concerned with awareness-raising, education and information dissemination on issues of social equity, the environment, sustainable development and any other issues that appear as important in the course of the planning process.

- *Decision-making Fora:* a consensus decision-making process involving all interests is the starting point for any EPM exercise. The articulation of fora will depend on the particular PUI situation but is likely to include several (three?) levels; each community producing its own plans and actions, each city/municipality provides a planning framework and plans for strategic activities (e.g. main drainage), each sub-region providing guidelines, particularly on the use of resources (and especially the use of land) that provide a 'sustainable development strategy' for the system as a whole. The various fora will need to formalise their membership and working procedures (a constitution) and their status relative to existing mechanisms of planning and managing the area for which they become responsible.

- *Participatory Issue Analysis:* this is the system wherein the community educates itself. The 'product' may be a 'state of the environment report' but it should be arrived at through a broad programme of 'popular research' that identifies issues and then researches them. It may go no further than analysing the problems, but it may also incorporate a strategy for solving the problems identified.

- *Vision and Strategy:* this may be undertaken iteratively, with an initial round before the participatory issue analysis, guiding that activity and then a more complete iteration in the context of the knowledge and experience gained during the issue analysis. In any case, this is the context within which many voices need to be heard in order not only to solve environmental problems but also to move in the direction of greater social justice. The output should indicate the overall lines that the EPM should take. This activity should take place at intervals of between two and five years. Each level needs to develop its own strategy, but the key strategy is that at the sub-regional level that should provide the overall parameters within which the strategies at municipal and local level are formulated.

- *Planning Process:* although not a component as such, the means whereby the planning process is organised is nevertheless clearly an essential item within the EPM system. There are many variants of the way in which the planning process may be run and it is not helpful to set one such process out as being relevant to all situations. The basic activities are, however:

  - Prioritisation of issues;

  - Allocation of responsibility for further investigation of each issue and proposing alternative approaches to solving problems;

  - Selection and development of one or a series of actions;

  - Allocation of responsibility and defining the time scale for the completion of activities;

  - Monitoring and evaluation of the work;

- If necessary adjustment of activities to achieve goals;

- Start the planning cycle again.

As in the case of the principles discussed in the foregoing section, the components discussed here are no more than a sketch. However, elaboration in general terms is not so useful and it will be necessary in later stages of the PUI research to elaborate these components in specific ways. As noted above, it might be more useful to discuss this in terms of a *process.* Thence it would be useful to devise an EPM system relevant to:

- The different types of PUI situation (the 'models' mentioned in the foregoing section on principles);

- The specific case cities/sub-regions with which the project is involved; and

- The specific needs of an EPM process at different geographical levels – the community, the city/municipality and the sub-region.

REFERENCES

Adell, G., 1999, *Theories and Models of the Peri-urban Interface: a Changing Conceptual Landscape,* PUI Research Paper, Development Planning Unit, London.

Allen, A., da Silva, N.L.A. and E. Corubolo, 1999, *Environmental Problems and Opportunities of the Peri-Urban Interface and their Impacts upon the Poor,* PUI Research Paper, Development Planning Unit, London.

Atkinson, A., 1991, *Principles of Political Ecology,* Belhaven, London.

Atkinson, A, 1992, The Urban Bioregion as 'Sustainable Development' Paradigm, *Third World Planning Review,* Vol.14, No.4.

Atkinson, A., 1993, Are Third World Megacities Sustainable? Jabotabek as an Example*, Journal of International Development,* Vol.5, No.6.

Bartone, C., Bernstein, J., Leitmann, J. and Eigen, J. (1994) *Towards Environmental Strategies for Cities: Policy Considerations for Urban Environmental Management in Developing Countries,* World Bank, Washington DC.

Berkes, F. (ed), 1989, *Common Property Resources: Ecology and Community-Based Sustainable Development,* Belhaven, London.

Budds, J. and Minaya, A., 1999, *Overview of initiatives Regarding the Management of the Peri-Urban Interface,* PUI Research Project, Development Planning Unit, London.

Corubolo, E., 1999, *Principles and Components for EPM in the PUI,* PUI Research Paper, Development Planning Unit, London.

Council on Environmental Quality, 1982, *The Global 2000 Report to the President: Entering the Twenty-First Century,* Allan Lane, Harmondsworth.

Cour, J-M., 1998, *West Africa: Urbanisation and Transition to a Full Market Economy,* Club de Sahel, OECD, Paris.

Dag Hammarskjöld Foundation, 1975, What Now? Another Development? *Development Dialogue,* Nos 1-2.

Dalal-Clayton, B., 1999, *Rural Planning: Experience and Lessons,* PUI Research Paper, International Institute for Environment and Development, London.

Dobb, M., 1946, *Studies in the Development of Capitalism,* George Routledge, London.

Douglass, M., 1998, A Regional Network Strategy for Reciprocal Rural-Urban Linkages: An Agenda for Policy Research with Reference to Indonesia, *Third World Planning Review,* Vol.20, No.1, pp.1-33.

Firman, T., 1996, Urban Development in Bandung Metropolitan Region. A Transformation to a Desa-Kota Region, *Third World Planning Review,* Vol.18, N°1.

Friedmann, J. and Douglass, M., 1978, Agropolitan Development: Towards a New Strategy for Development in Asia, in Lo and Salih (1978).

Friedmann, J. and Weaver, C., 1979, *Territory and Function: The Evolution of Regional Planning,* Edward Arnold, London.

Gore, C., 1984, *Regions in Question: Space, Development Theory and Regional Policy,* Methuen, London.

GTZ, 1993, *Manual for Urban Environmental Management,* Deutsche Gesellschaft für Technische Zusammenarbeit, Eschborn.

Hall, P. et al., 1973, *The Containment of Urban England,* Allen and Unwin, London.

Harvey, D., 1989, *The Condition of Postmodernity*, Polity, Cambridge.

Howard, E., 1902, *Garden Cities of To-Morrow,* Faber and Faber, London.

ICLEI, 1996, *The Local Agenda 21 Planning Guide: An Introduction to Sustainable Development Planning,* International Council for Local Environmental Initiatives, Toronto.

Jodha, N. S., 1992, *Common Property Resources: A Missing Dimension of Development Strategies,* World Bank, Washington.

Jones, R. J. B., 1995, *Globalisation and Interdependencies in the International Political Economy,* Pinter Publishers, London.

Koppel, B., 1987, Does Integrated Rural Development Really Work? Lessons from the Bocol River Basin, *World Development,* 15, pp.205-220.

Korten, D., 1996, *When Corporations Rule the World,* Earthscan, London.

Lazarev, G., 1994, *People, Power and Ecology: Towards Participatory Eco-Development,* Macmillan, London.

Levy, C., 1996, *The Process of Institutionalising Gender in Policy and Planning: The 'Web' of Institutionalisation,* DPU Working Paper No.74, Development Planning Unit, London.

Lo, F. C. and K. Salih (Eds), 1978, *Growth Pole Strategy and Regional Development Policy,* Pergamon, Oxford.

Lukes, S., 1974, *Power: A Radical View,* Macmillan, London.

Martin, G. and Hamacher, W. (Eds), 1997, *Lessons Learned in Environmental Mediation: Practical Experiences in North and South,* International Academy of the Environment, Geneva.

Mehmet, O., 1995, *Westernizing the Third World: The Eurocentricity of Economic Development Theories,* Routledge, London.

Minaya, A., 1999, *Principles and Components of Strategic Environmental Planning and Management,* PUI Research Paper, Development Planning Unit, London.

Mitlin, D. and Thompson, J., 1995, Participatory Approaches in Urban Areas: Strengthening Civil Society of Reinforcing the Status Quo? *Environment and Urbanization,* Vol.7, No.1.

Nottingham and Liverpool Universities, 1999, "Literature Review on Peri-Urban Natural Resource Conceptualisation and Management Approaches", Peri-Urban Production Systems Research, Natural Resources Systems Programme, DFID (Project No. R6949), Final Technical Report, London.

Potter, R. and Unwin, T. (Eds.), 1989, *The Geography of Urban-rural Interaction in Developing Countries: Essays for Alan B, Mountjoy*, Routledge, London.

Potter, R. and Unwin, T., 1995, Urban-rural Interaction: Physical Form and Political Process in the Third World, *Cities,* Vol.12, No.1.

Rahman, M D A., 1993, *People's Self-Development: Perspectives on Participatory Action Research,* Zed Books, London

Rakodi, C., 1998, *Review of the Poverty Relevance of the Peri-urban Interface Production*

System Research, Report for the DFID Natural Resources Systems Research Programme, 2nd Draft , DFID, London.

Rondinelli, D. A., 1983, *Secondary Cities in Developing Countries: Policies for Diffusing Urbanisation*, Sage Publications, Beverly Hills.

Rondinelli, D. A., 1984, *Applied Methods of Regional Analysis: the Spatial Dimensions of Development Policy*, Westview Press, Boulder, Colorado.

Shutt, H., 1998, *The Trouble with Capitalism: An Enquiry into the Causes of Global Economic Failure,* Zed Books, London.

Stalker, P. (Ed), 1995, *States in Disarray: The Social Effects of Globalization,* United Nations Research Institute for Social Development (UNRISD), Geneva.

Stöhr, W. B. and Taylor, D R F. (Eds), 1981, *Development from Above or Below? The Dialectics of Regional Planning in Developing Countries,* John Wiley, Chichester.

Steward, J. H., 1976, *Theory of Culture Change: The Methodology of Multilinear Evolution,* University of Illinoi Press, Urbana.

UNDP, 1998, *Human Development Report,* United Nations Development Agency, New York.

UofN/UofL., 1999, *Literature Review on Peri-Urban Natural Resource Conceptualisation and Management Approaches,* University of Nottingham and University of Liverpool.

UNCHS/UNEP, 1997, *Environmental Planning and Management (EPM) Sourcebook Volume 1: Implementing the Urban Environmental Agenda; Volume 2: City Experiences and International Support; Volume 3: The Urban Environment Forum Directory,* United Nations Centre for Human Settlements and United Nations Environment Programme, Nairobi.

Wackernagel. M. and Rees, W., 1996, *Our Ecological Footprint: Reducing Human Impact on the Earth,* New Society Publishers, Gabriola Island, BC, Canada.

Wallerstein, I., 1974, *The Capitalist World Economy,* Cambridge University Press, Cambridge.

Wignaraja, P. (Ed), 1993, *New Social Movements in the South: Empowering the People,* Zed Books, London.