CSH Occasional Paper

CSH

Peri-urban dynamics:
population, habitat and
environment on the peripheries
of large Indian metropolises
A review of concepts and general issues

Edited by Véronique Dupont

No. 14
2005

Publication of the
French Research Institutes in India

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December 2005

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ACKNOWLEDGEMENTS

Earlier versions of the contributions constituting this Occasional Paper as well as two forthcoming volumes[1] in the same series on *Peri-urban Dynamics* were presented and discussed, among fifteen other papers, in an International Workshop on 'Peri-urban Dynamics: Population, Habitat and Environment on the Peripheries of Large Indian Metropolises'. It was organised by the Centre de Sciences Humaines in collaboration with the India International Centre in New Delhi, on 25th to 27th August 2004.

The papers and the introduction have greatly benefited from the comments of the discussants and other participants to the workshop, and later from the reviewers. In this connection, we would like to thank especially N. Sridharan. In addition, the reflections developed in the introduction have also benefited from the discussions held during a follow-up seminar organised on the same topic at the CePeD (Centre for Population and Development), Paris on 15th November 2004. During this seminar, the findings on Indian metropolises were compared with case studies of peri-urbanisation in other metropolises of the world.

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[1] Sébastien Oliveau, *Peri-urbanisation in Tamil Nadu: a quantitative approach*, CSH Occasional Paper No. 15, New Delhi, Centre de Sciences Humaines, 2005; Véronique Dupont and N. Sridharan (eds), *Peri-urban Dynamics: Case Studies in Chennai, Hyderabad and Mumbai*, CSH Occasional Paper, New Delhi, Centre de Sciences Humaines, 2006 (forthcoming).

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I

Peri-urban dynamics: population, habitat and environment on the peripheries of large Indian metropolises

An Introduction

Véronique DUPONT

1.1 Challenges and scientific issues

As a corollary to the growth of million-plus mega-cities, which marks the evolution of urbanisation on a global scale, unprecedented socio-spatial dynamics come into play. In particular, spatial expansion of such mega-cities is reflected in the specific processes of peri-urbanisation: the formation of 'mixed spaces', midway between urban centres and rural spaces, transitional spaces subject to multiple transformations—physical, morphological, socio-demographic, cultural, economic and functional.

These changes are even more spectacular when seen against the backdrop of rapid urban growth, common to many metropolises in developing countries (Steinberg 1993), including India. Management problems resulting from this growth are correspondingly more complex. Thus, studies that endeavour to throw light on peri-urban dynamics are deemed all the more necessary: a good grasp of the processes of transformation at work is an essential prerequisite for any undertaking on urban and regional planning.

Our initial hypothesis is that within the metropolitan areas 'location' is never neutral. For us peri-urban space does not constitute a simple framework of analysis. The peripheries of the large metropolises are not merely one zone amongst others constituting the metropolitan space, but a space whose use corresponds to diverse and often conflicting stakes, indicative of processes signifying a political and societal vision of the city and access to it. The relevance of a special relationship between periphery and marginality has, in particular, to be explored; in other words, the degree of correspondence between the spatial and social-economic-political dimensions of marginality (see Arabindoo, Schenk in this volume; Sharan 2004).

The process of identifying, and understanding the forces of change at work in peri-urban spaces would firstly, necessitate a study of the settlement pattern in these areas. This calls for an analysis of the modalities of the settlement process in the peri-urban spaces and an evaluation of its various components in terms of population and housing. Thus, what is the respective share in the total population of the natives (the original villagers) and migrants—settlers from the central zones of the metropolis or migrants from outside the metropolitan area, especially from rural areas—and what is their socio-economic profile? What are the various forms of production resorted to in the built-up areas, their evolution and transformation? How does the overlap between the urban built-up extensions and the existing village clusters and surrounding countryside function? Do we also encounter a social and cultural overlap?

Such an approach involves questioning the traditional dichotomy that compartmentalises populations and human settlements into 'urban' and 'rural'. The evident dilution of these categories on the outskirts of metropolises induces us to forge more appropriate concepts in order to take into account the effective modalities of the settlement process in the areas around metropolises[1], in particular in the context of developing countries marked by rapid demographic growth. To what extent is a peri-urban or a peri-metropolitan category operational? How should it be defined and its physical limits determined? In the work of Sébastien Oliveau (2005), a quantitative approach to this question is proposed for South Indian metropolises.

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[1] This scientific inquiry was one of the issues dealt with by the working group on urbanisation, coordinated by Tony Champion and Graeme Hugo under the aegis of the International Union for the Scientific Study of Population, leading to the following publications: Champion, Hugo and Lattes (2003); Champion and Hugo (2004), which includes an article on an Indian metropolis (Dupont 2004). For an analysis of the 'challenges of rural-urban classification' in the case of India, see Bhagat (2003). The establishing of urban geotypes beyond the urban/rural divide is also one of the issues studied by French geographers such as Jacques Lévy (1999).

The dynamics of settlement in peri-urban spaces rests in (more or less great) part on intra-urban residential mobility, which in turn gives rise to daily mobility between the place of residence and the place of work. Transport facilities, which often condition the access to employment available in the more central zones, are an important factor that affects the modalities of peripheral urbanisation. To what extent does the increase of private modes of transport popularise far-off peri-urban extensions for a particular category of privileged citizens? On the other hand, what are the limitations imposed on peri-urban housing by the absence or insufficiency of an effective mass transport system serving the metropolis and its region; in consequence what constraints weigh on the daily life of its inhabitants, especially the less privileged? Some illustrations of these issues will be provided through the cases of Delhi (see Schenk in this volume), as well as Chennai and Hyderabad.[2]

From a broader perspective, the question of accessibility, not only with regard to urban transport and employment, but also with regard to urban infrastructure, amenities and services, is crucial for an understanding of the positioning of the inhabitants of peri-urban spaces. Thus, is it merely a question of living on the periphery (in the geographical sense) or one of being relegated to the fringes of urban society? (see Schenk in this volume).

Starting from the hypothesis that the dynamics of transformation of peripheral spaces is not independent of the dynamics of the more central areas of the metropolis, the study of the peri-urban phenomenon provides also a relevant approach to analyse certain types of mobility and urban restructuring, which significantly affect the development of the large metropolises.

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[2] In a forthcoming CSH Occasional Paper of this series on peri-urban dynamics: Dupont, V. and Sridharan, N. eds, *Peri-urban Dynamics: case studies in Chennai, Hyderabad and Mumbai*.

Mixed spaces, apportioned between populations with contrasting life styles and varied land use, peri-urban spaces are also disputed spaces, bringing into play divergent and even conflicting interests. Thus, the extensions of residential zones or those of industrial and commercial zones compete with the development of green belts, cultivated areas or nature reserves. The arbitration and management of these coveted spaces are rendered problematic when they are situated beyond the administrative limits of the city in zones that are generally not recognised as (specific) entities of planning.

To the extent that the access of the poor to housing and to the city in the major metropolises of the South often implies suburban residential locations, conflicts over the use of peri-urban spaces and environmental issues echo the debate between proponents of the *green agenda* (giving priority to ecological issues in the long term) and those of the *brown agenda* (more concerned with issues of social justice and satisfying the immediate needs of the poor).[3] An inquiry into the living conditions prevailing in peri-urban spaces thus enables us to contribute towards a more general reflection on the parameters of sustainable 'human' development in the major metropolises of the South. This means examining not only environmental concerns, but focusing also on the issue of social equity—an issue that frequently figures on the agenda of international forums.[4]

1.2. The context of Indian Metropolises and Metropolitan Peripheries

India, with the second largest urban population in the world (more than 300 million today) and its mega-cities, provides a pertinent

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[3] Bartone et al. (1994); McGranahan, G. and Satterthwaite (2000), UNCHS (1996).

[4] World Commission on Environment and Development (1987); United Nations Conference on Environment and Development, 1991; UNDP (1994).

backdrop to examine the issues of population, habitat and environment in the metropolitan peripheries: an emerging country whose total population recently passed the one billion mark, and where the challenges of urban and peri-urban growth echo the demographic pressure.

The world of towns and cities in India, despite its remarkable size, still constitute a minority (28 per cent of urbanites in the total population according to the 2001 census figures)[5]. It has nevertheless engendered million-plus agglomerations. Although there is no glaring imbalance in the urban system at the pan-Indian level, an increasing concentration of urban populations and economic activities in the bigger cities is seen at the top of the hierarchy. Thus, in 2001, there were 35 metropolises (cities or urban agglomerations) of more than a million inhabitants, representing 38 per cent of the total urban population, among them 6 mega-cities with more than 5 million inhabitants.[6]

The rate of urbanisation in India shows moderate progression (24 per cent in 1981, 26 per cent in 1991 and 28 per cent in 2001). Although various demographic, economic and socio-cultural factors contribute to this situation (Bose 1980; Dasgupta 1985; Dupont 2002), the evolution of the official percentages of the urban population also masks a much more powerful socio-economic

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[5] The definition of an 'urban unit' or town that has been applied since the 1961 Census of India is as follows: a) All places which answer to certain administrative criteria, such as the presence of a municipality, a corporation, a cantonment board, a notified town area committee, etc. These are called the statutory towns. b) All other places which satisfy the following three criteria: i) a minimum population of 5,000 inhabitants; ii) at least 75 per cent of the male working population engaged in non-agricultural pursuits; iii) and a population density of at least 400 persons per sq. km. These are called the census towns.

[6] We are using the definitions in the Census of India, which differentiates between 'cities and urban agglomerations' of more than a million inhabitants—called 'metropolises' or 'metropolitan urban agglomerations and cities'—and cities with more than 5 million inhabitants, classified as 'mega-cities'. In 2001, the six mega-cities were: Greater Mumbai (16.3 million), Kolkata (Calcutta) (13.2), Delhi (12.8), Chennai (Madras) (6.4), Bangalore (5.7) and Hyderabad (5.5).

urbanisation concentrated in peri-urban zones classified as 'rural'. This is a peri-urbanisation, moreover, that leads to greater commuting and other forms of circular mobility within the metropolitan region. Thus, focusing on the peri-urban zones of the Indian metropolises allows us to highlight the eventual gaps between the ground reality and the administrative and statistical classifications and to provide one explanatory factor for the relatively slow rate of urbanisation. The underestimation of the effective growth of urban population by the Census's dichotomous definition into rural and urban has been, for instance, denounced by Bhagat (2003).

The specific forms of urbanisation that emerge on the periphery of the large Indian metropolises have, moreover, to be studied in the context of the high density of the rural population (219 inhabitants per square kilometre in 1991)[7]—a characteristic also found in other Asian countries (Ginsberg et al. 1991; McGee 1991). India's geographical diversity, however, calls for a comparison between regional studies.

On the economic and political front, liberalisation and the induction of international trade and foreign capital (initiated in India in the 1990s), as well as politico-administrative decentralisation reforms—by which more important responsibilities are transferred to the municipalities[8]—have changed the context of development in the big metropolises. The new national strategy in the urban sector hinges on the concepts of decentralisation, deregulation and privatisation.

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[7] Till date, the 2001 Census of India has only released the overall population density figures: 324 inhabitants per square kilometer over the entire Indian territory (Jammu and Kashmir excluded).

[8] In the field of urban governance, the cornerstone of the reforms was the 74th Amendment to the Constitution that decentralises the strategic level of government and promotes participatory democracy (see for example Mahadevia 2003).

These reforms have favoured the insertion of Indian mega-cities into the larger global movement. According to Banerjee-Guha (2002), this process has been accompanied by a further fragmentation and aggravation of socio-spatial inequalities. In the context of global competition, the peri-urban appears to be a preferential zone for the location of specialised infrastructure: thus, for instance, the creation of growth centres, especially Information Technology or Biotechnology hubs, at the portals of the major metropolises—as exemplified by the cases of Hyderabad and Chennai.[9]

Reflecting the conflicting interests at stake in the use of peri-urban spaces, the judiciary has emerged as an increasingly important actor in urban governance in India, especially through the Public Interest Litigation procedure. This crystallises and often exacerbates the antagonism between environmental considerations in the public's interest and the housing needs of the population, especially of the poor who, forced into illegal forms of urbanisation, are rendered even more vulnerable. Some studies have indeed underlined the environmental vulnerability of the peri-urban spaces (Bentick 2000; Shaw 2005). While focussing on the planning of the urban coast of Mumbai, Burte and Krishnankutty (2004) examine examples of conflicts between the 'emerging ecological and human right narratives'. In legal disputes, the environmentalist argument stresses, for example, the protection of green belts to the detriment of squatter settlements, which therefore should be evicted, as in the case of the Sanjay Gandhi National Park in Mumbai (Zérah 2004). In Delhi, the Ridge, the natural reserve perceived as the lungs of the capital, was thus cleared of structures and encroachments by persistent judicial intervention. In another case in Delhi, a NGO opposed, on environmental grounds a government policy that aimed at regularising unauthorized colonies

[9] Dupont, V. and Sridharan, N. eds., (2006) *Peri-urban Dynamics: case studies in Chennai, Hyderabad and Mumbai.* CSH Occasional Paper, New Delhi, Centre de Sciences Humaines (forthcoming).

that had proliferated on agricultural land on the outskirts of the capital. The petitioner's argument focused on the conditions underlying the construction of such settlements, i.e. the lack of sanitary and urban infrastructure necessary for a salubrious environment (Dupont 2005).

The evolution of peri-urban zones in India has led to two main theses that will be supported—or challenged—by case studies presented in this Occasional Paper and the two forthcoming ones in this series.

Economic and politico-administrative reforms have affected the economic and social structure of metropolises and their peripheries with, among other consequences, repercussions on the spatial distribution of the poor (Kundu, Schenk, Dash Bal 2002). According to some authors, this has led in particular to a process of '*degenerated peripheralisation*' (Kundu, Pradhan, Subramanian 2002; and in the case of Delhi: Kundu, Schenk, Dash Bal 2002). The resulting peripheral zones are characterized by a preponderance of underprivileged settlers (migration to the cities by the rural poor and the resettlement of slum dwellers from the city after the demolition of their homes), a lack of infrastructure, urban services and amenities, the presence of polluting and heavy industries evacuated from urban centres and a degraded environment.

Several examples do substantiate this thesis. In Delhi, following Supreme Court orders passed in the late nineties, hazardous and polluting industries located in the city were pushed beyond the boundaries of the urban agglomeration (Sharan 2004). We have shown elsewhere how slum clearance and rehabilitation policies implemented in the capital since the sixties (Dupont and Houssay-Holzshuch 2005), and judicial activism since the late nineties (Dupont and Ramanathan 2005), have contributed to a social segmentation of the metropolitan space and the exclusion of the

poor from the central zones of the city. This is also the thesis defended in this volume by Hans Schenk, who concludes his contribution by denouncing the trend towards segregation, degeneration and exclusion that, according to him, epitomises India's emerging urban fringe.

Yet, on the basis of a more comprehensive scrutiny of the metropolitan peripheries, we would like to emphasise the greater *heterogeneity and segmentation of peri-urban spaces*. The process of urban fragmentation, mentioned above, also affects the peri-urban spaces themselves, where new forms of segregation, polarisation, and socio-spatial fragmentation emerge. Metropolitan peripheries are, in fact, complex structures resulting from a mix of planned operations and unplanned, uncontrolled processes and the flouting of regulations. Urbanisation of the rural fringes, in consequence, covers a wide range of modalities. For example, in Delhi these include, as documented in another article (Dupont 2004) overcrowding of original village clusters by the arrival of new migrants, construction of squatter settlements by the poorer people, the forced resettlement of unwanted citizens by the authorities, development of unauthorised colonies for the low income households who aspire to owning property or renting inexpensive accommodation, as well as exclusive colonies or condominiums for the rich in search of a better living environment. The characterisation of metropolitan peripheries by their heterogeneity and fragmentation is a proposition explored in this volume by Pushpa Arabindoo, who relates it to 'the postmodern dynamics of the 1980s and 1990s wherein the dynamics of global capitalism introduces a variety of actors in the metropolitan peripheries and who indulge in hegemonic contestations and conflicts over the spatial prescriptions'.

The two interpretative frameworks proposed above are not necessarily exclusive of each other, depending on the scale and the focus of observation. The examples given in this Occasional

Paper as well as the detailed case studies presented in a forthcoming volume of this series on peri-urban dynamics[10], drawing from the experiences of Delhi, Chennai, Hyderabad and Mumbai, will illustrate the wide scope of situations.

1.3. A review of concepts

The papers included in this first volume of the series of three Occasional Papers on peri-urban dynamics highlight the forces that govern peri-urbanisation and reflect upon the main issues at stake, as introduced in the previous sections.[11] They also attempt, more specifically, to refine the concepts related to the 'peri-urban' spatial category, and to better define and delimit this research 'object'. The authors examine not only the literature related to the Indian and Asian metropolises (Schenk), as well as other developing countries (Rohilla), but also explore the concepts and models elaborated to analyse the evolution of the western metropolis, drawing in particular on the North American case (Jargowsky, Arabindoo) and the French case (Cadène).

Paul Jargorwsky's contribution provides a pertinent opening for this collection of papers, as it reflects on the definition of peri-urban areas by contrasting the United States and Indian experiences, with references to the other contributions of this volume. To start with, he notes that 'the concept of "peri-urban" common in

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[10] Ibid.

[11] The second volume of this series proposes a quantitative approach to peri-urbanisation in South India. The author attempts to delimit a peri-urban fringe through statistical indicators based on census data and with the use of a Geographical Information System. See: Oliveau, Sébastien (2005) *Peri-urbanisation in Tamil Nadu. A quantitative approach*, CSH Occasional Paper No. 15, New Delhi, Centre de Sciences Humaines.
The third volume of the series on Peri-urban dynamics will present detailed cases studies of peri-urban neighbourhoods in Chennai, Hyderabad and Mumbai.
See: Dupont, V. and Sridharan, N. eds (2006) *Peri-urban Dynamics: case studies in Chennai, Hyderabad and Mumbai,* CSH Occasional Paper, New Delhi, Centre de Sciences Humaines (forthcoming).

European and Indian literature on the subject is not in use among scholars in the United States. Rather, the dialogue in the U.S. concerns suburban development or, with pejorative connotations, suburban 'sprawl'".

Pushpa Arabindoo also initiates her reflection with the model of the American metropolis and places the study of peri-urban dynamics under the umbrella of metropolitan development. She proposes a theoretical exploration into the evolution of the western metropolis as a modern and postmodern product and its subsequent importation and adaptation into a non-western crucible of the Third World city, with special references to Indian metropolises. She argues 'for the need to view the peri-urban condition as a *constructed primordialism*—where the edge is primordial to the urban-rural interface, but whose mutations are primarily constructed by the manipulations of post-independent metropolitan planning'.

Philippe Cadène presents a synthetic analysis of the emergence and evolution of peri-urban areas in France, and derives relevant lessons for further research in developing countries. As far as the French definition of peri-urban is concerned, he stresses the primacy of geography that avoids evoking the contents. This spatial category is thus described as 'a mosaic of villages, forming a sort of third ring of urbanised suburb on the fringes of urban areas, but still retaining the characteristics of a rural landscape. It is, therefore, vastly different from the second ring, which is in direct contact with the suburbs and in which real estates and miscellaneous activities take up the major share of the land'.

Expanding beyond the North American and French references, a more comprehensive review of the literature on the 'peri-urban', as proposed by Suresh Rohilla, shows a diversity of definitions as well as terms used: metropolitan fringe, urban fringe, rural-urban fringe, metropolitan peripheries, 'rurban', *desakota*, peri-

urban interface, semi-urbanised or urban transition zone. However, a consensus emerges on the following common feature when defining the 'peri-urban': 'the "peri urban" is an area outside existing urban agglomeration where large changes are taking place over space and time'.

Indeed, the concept of peri-urban zone or interface cannot be a static one, that would refer to distinct and fixed boundaries, but should on the contrary be a dynamic concept. The peri-urban zones undergo a continuous evolution. As aptly underlined by Hans Schenk who draws on the Asian experience, they expand and shrink geographically, 'eating' their way into the countryside, while they are swallowed by the expanding urban core area. Hence, this author suggests 'the concept of a two-fold dynamism in a "rolling" fringe'. To conclude, the peri-urban interface refers in the first place to 'a region of change' (DFID 1999 – Department for International Development report, quoted by Rohilla). As synthesised by Paul Jargowsky, in North America, in Europe or in Asia, 'peri-urban areas are those which have recently been transformed, or are in the process of being transformed, from self-regarding localities to localities which exist in a continuous but subordinate relation to a major city centre'.

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II

Comparative Metropolitan Development[1]

Paul A. JARGOWSKY

2.1. Introduction

Over centuries of human development and throughout the world, periods of urban concentration have been followed by periods of suburbanization. Population centres become urban cities, which then become metropolitan agglomerations of multiple and overlapping political jurisdictions, remnants of obsolete political structures. Quite often there are sharp contrasts in the urban ecological characteristics of the urban core compared to the suburbs, or 'peri-urban areas' as they are dubbed by European and Indian scholars. While there are similarities across countries in the pressures leading to metropolitan growth, there are also profound differences in the resulting patterns of urban and suburban development. In the United States, the suburbs are rich and powerful; in France, the suburbs are transitional zones with largely middle class and poor groups in uneasy competition; in India, suburban zones have been dubbed a 'degenerated periphery', (Kundu et al. 2002), and for the most part house the most wretched of slums. Such striking differences in outcomes provide an opportunity to explore the role of governmental structures and public policy choices in shaping the character of peripheral development.

The concept of the 'peri-urban' common in European and Indian academic literature is not in use among scholars in the United States. Rather, the dialogue in the U.S. concerns suburban development or, with pejorative connotations, suburban 'sprawl' (Drier et al. 2001). Both sets of researchers take as given certain assumptions that the other would find quite surprising. For example, for U.S. scholars, it is taken as a given that peripheral development in metropolitan areas consists of planned development of single family homes catering to higher income households. Secondarily, office parks and 'clean' industries relocate to reduce land costs and reduce the commuting time of already-suburbanized senior management and professional staff.

The principal concerns in the U.S. suburban literature are:

- the racial and economic exclusivity of suburban development (Jargowsky 2002);
- the effect of suburban development on the central cities, such as eroding of the fiscal base and contributing to the concentration of poverty (Jargowsky 1997, 2003; Wilson 1987);
- the environmental impacts of low-density, automobile dependent development over large areas (Kunstler 1993; Sierra Club 1998);
- political fragmentation among suburban jurisdictions with fewer and fewer common interests with the core central city (Orfield 1996, 2002; Rusk 1999).

In India and the developing world, the situation is quite different. Schenk[2] and Rohilla[3] emphasize that development, both planned and unplanned, is extremely heterogeneous. Far from housing the elite, the peri-urban region often serves as a dumping ground for uprooted slum-dwellers or industries forced to relocate by government fiat, or self-generating ports of entry for poor rural migrants. The housing varies enormously in quality and the densities can be quite high.

Immediately these contrasts raise the question: can there be any common ground on a conceptual or theoretical level in the scholarly study of suburban development in the U.S. and peri-urban development in the developing world? I return to this issue after addressing the basic issue of the definition of peri-urban.

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[2] See Chapter 6 of this Occasional Paper.

[3] See Chapter 5 of this Occasional Paper.

2.2. What is 'peri-urban'?

In the context of the United States, suburbs are often defined in contradistinction to the concept of the central city. In the case of the Dallas metropolitan region, the City of Dallas as a political jurisdiction is the Central city and the remaining 154 cities, towns, and places are considered *ipso facto* to be the suburbs. At a slightly more technical level, the Bureau of the Census defines central cities according to residential population and employment densities. Two additional cities, Irving and Denton, are thus classified as central cities in this fashion, so that Dallas may be regarded as a poly-nucleated metropolitan area. There is no metropolitan government, no one entity that has authority to control, manage, or even monitor the development of the metropolitan region. Moreover, the federal government is constitutionally barred from such activity, and state governments, which could step in to this role, by tradition defer to the plethora of localities.

Thus, the Dallas metropolitan area has existence only as a marketing tool and as a structure for collecting and presenting Census data. The multiplicity of local governments, and the resulting fragmentation of developmental authority, is not an institutional design but a consequence of the geographic expansion of urban populations beyond the historic boundaries of city centres. Many suburbs were once the small downtowns of a rural community, home to the post office, grocery store, and a school, serving a dispersed rural population. With huge increases in population and even larger changes in their urban ecological niche, these independent cities retained their old boundaries and served as a barrier in may cases to the annexation desires of central city governments.

The anarchic situation of U.S. metropolitan regions is at odds with most of the rest of the world. In Delhi, India, for example, the Delhi Development Authority historically had complete power to

control development, although in recent decades the power of private capital has grown (Arabindoo[4]). Without a political and jurisdictional distinction between central city and suburbs, scholars in European and Indian contexts must define per-urban areas in organic, ecological terms.

Dupont[5] refers to peri-urban as 'mixed spaces', which are 'midway between urban centres and rural spaces.' Cadène[6] echoes this theme with the phrase, 'Lying between cities and the countryside….' While intuitively obvious, one may ask, midway in which sense? Midway on a geographic scale, on a scale of density, or some other measure of development, such as the ratio of developed to vacant land? All of these measures would prove unwieldy in practice and subject to multiple exceptions given the idiosyncrasies of metropolitan regions. As an analytic concept, it is not adequate.

Dupont goes on to argue that peri-urban areas are 'transitional spaces' and emphasizes that the areas are subject to rapid and profound changes in their built environments, population, and social demography. Cadène gives a historical sociology of the development of the peri-urban areas in France, stressing how the character of such areas changed over time in response to a changing balance of power among pre-existing residents and the urban refugees who migrated to these areas.

Rohilla goes further, arguing that proximity is only incidental, stressing that peri-urban spaces are in a process of development linked to a larger urban system. After articulating the fundamental contradictions extant in the literature, he argues that peri-urban

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[4] See Chapter 3 of this Occasional Paper

[5] See Introduction to this Occasional Paper.

[6] See Chapter 4 of this Occasional Paper.

areas are those which are in the path of urbanization, and will be absorbed into the urban agglomeration in a few decades. In other words, he stresses not the characteristics of the places but their trajectory of rapid and disruptive change.

Arabindoo extends this notion of urban/suburban transition zone, by contrasting it with the urban/rural transition zone. The latter is regarded as primordial, whereas 'the peri-urban interface in itself is a construction conjured up by metropolitanisation, a phenomenon that has come to dominate the urbanisation process in all major cities'. For this reason, she oxymoronically construes the peri-urban condition as a 'constructed primordialism,' stressing at one time both the fundamental nature of the border condition and the transitory and contingent nature of the boundary.

The difficulty of defining 'peri-urban' expands dramatically if we try to broaden the concept in a way that would take under its wing the suburban development of the United States, with its fundamentally different character. Yet by examining the intersection of what it means to be peri-urban in the Indian context and suburban in the American context, one common feature emerges: peri-urban areas are those which have recently been transformed, or are in the process of being transformed, from self-regarding localities to localities which exist in a continuous but subordinate relation to a major city centre. 'Self-regarding' refers to small towns, rural villages, or undeveloped area in which the inhabitants, if any, typically live and work within its borders. Of course, there may be interaction, migration, and trade with a nearby urban centre or even distant urban centres, but that is secondary to the chief identity of the place. Contrast that with an area wholly integrated in the daily ebb and flow of a large metropolis, whose population exchanges rapidly and regularly with the central city and other connected areas, and whose daily commerce is inseparable from the dynamic of the urban economy.

While lacking adequate specificity to qualify as a formal technical definition, the notion of a zone of transition works well as a point of emphasis and an organizing concept. Thinking along these lines stresses several of the themes brought forward by the papers in this collection: physical contiguity, transformation, and integration in the context of rapid urban growth. It does not pre-judge the character of such areas. The newly created suburb on the outskirts of Dallas, with a preponderance of 400 square meter single-family homes with private swimming pools, and the relocated slums of Mumbai or Delhi can both be contained within such a conceptualization. In this view, 'suburbs' in the US are simply a specific type of peri-urban area. The key question then becomes: why do the US, France and India, subject to the same laws of economics and the same general principles of human relations, develop such fundamentally different types of peri-urban spaces? The answers must be rooted in the politics, governance, economic structures, and idiosyncratic sociological characteristics of the different nations.

2.3. Core Issues

One theme which runs explicitly or implicitly through the peri-urban literature is that peri-urban areas must be understood in terms of the larger urban dynamic that creates them. In Dupont's words, 'the dynamics of transformation of peripheral spaces is not independent of the dynamics of the more central areas of the metropolis'. I would go further and say that one cannot understand the peri-urban areas in isolation. They must be understood in terms of the role they play in the larger metropolitan system, including the labour market, housing market, and political structure. Changes in the peri-urban areas are, for the most part, highly visible manifestations of changes occurring at broader scales.

Given a common rubric uniting American-style wealthy suburbs, on the one hand, and Indian unplanned slum colonies, on the other hand, a comparative perspective can illuminate the forces that drive

peri-urbanization and the characteristics of the resulting areas. Faced with the same pressures of population growth, industrialization, mechanization, and globalization, these different societies produce radically divergent responses. The contrast is not accidental, but flows from differences in institutional arrangements, cultural assumptions, and to the accumulated constraints imposed by history. The following sections argue the point by giving a few examples of such differences and their role in producing extant development patterns.

Differences in Social Function

As an example of this principle, consider the US/India contrast described earlier. In the US, the wealthier segments of society largely try to follow Robert Park's (1926) hypothesis that social distances are translated into physical distances. In the US, social distances are measured first and foremost on the basis of race, specifically the white/black distinction and secondarily on income, education, and other markers of prestige. Particularly after the race riots of the 1960s, those with higher incomes sought to isolate themselves from the poverty and racial tensions of the central cities by moving to exclusive developments in the suburbs.

In India, the cultural situation with regard to the pressures imposed by class distinctions is quite different. Social distances are enforced culturally through caste, religion, and a strict division of labour; but that division of labour also creates interdependence between social classes. Wealthier Indians typically interact on a daily basis with servants, drivers, and other domestic workers in a way that is quite rare in the United States, where services are more often delivered commercially—through a corporate intermediary—rather than personally. For example, all wealthy Indians have drivers, whom they may see more often then their spouses, whereas Americans drive themselves, rent a car, or hire a taxi or limousine through a company. Thus, peri-urban areas in India are heterogeneous because the social structure depends on proximity

between higher and lower status persons, and the proximity does not threaten the social structure.

In France, Cadène argues that the peri-urban expansion was driven by the emergence of a stronger middle-class, and was driven by a desire to escape the entrenched urban order, almost as form of protest. The changing character of these spaces was driven by a shifting balance of power between the existing inhabitants, with a more rural focus, and the more cosmopolitan migrants.

Differences in Legal/Regulatory Environment
In the United States, the federal government has no direct power in the area of local land use development. Constitutionally, that power is reserved to the states, and traditionally states delegate these functions to local governments. In this legal context, each suburb behaves as an independent actor, with no responsibilities to the core city. Moreover, the suburbs are effectively in competition with each other to obtain the wealthiest households who bring the greatest amount of revenue to the tax base while at the same time having fewer social needs. (Similarly, Cadène talks about the 'hierarchisation' of French peri-urban areas). Through zoning and other means, the new suburbs attempt to be the most exclusive destination. The poor are left behind in the central city and older suburbs.

There is no metropolitan oversight of the growth process, and suburban development often outpaces the overall growth of the area, therefore undermining existing areas. Thus, the US does not follow the pattern identified by Schenk that 'a stagnant core generally implies a stagnant fringe while a growing core is associated with a dynamic fringe'. In fact, nearly the opposite is true in the US. However, it is still true that a development process connects them, albeit in this case a parasitic one.

In contrast, Indian peri-urban areas develop with both more and less regulatory oversight. On the one hand, central authority is stronger, and Master Plans are drawn up in the hope of directing peri-urban growth according to a logic that serves the interests of the broader area. On the other hand, as Schenk notes, 'unplanned' developments may spring up organically without any deference to governmental regulation, which is practically unheard of in the US. Clearly these differences in the legal/regulatory framework shape the development of peri-urban areas in important ways.

Consequences in the United States

The U.S. suburbanization process has a number of consequences that directly or indirectly limits the opportunities of the poor. Two key concerns are segregation by class and segregation by race.

Between 1970 and 1990, there was a dramatic expansion in the tendency of the poor to be spatially isolated in neighbourhoods in which at least 40 per cent of the residents were also poor. Jargowsky (1997), examining 239 U.S. metropolitan areas, found that the number of poor persons residing in high-poverty ghettos and barrios nearly doubled, rising from 1.9 million in 1970 to 3.7 million in 1990. At the same time, the overall number of poor persons in these same metropolitan areas increased by 37 per cent, due primarily to population growth and to a lesser extent due to a slight increase in the overall poverty rates of the metropolitan areas. As a result, a greater proportion of the poor lived in spatial contexts of extreme poverty: whereas 12.4 per cent of the poor lived in high-poverty areas in 1970, by 1990 the figure was 17.9 per cent.

The problem was particularly acute for members of minority groups. Whereas one fourth of poor blacks in the 239 metropolitan areas resided in high-poverty neighbourhoods in 1970, by 1990, the figure rose to one third. About one fourth of the Hispanic poor lived in high-poverty areas in both 1970 and 1990, although

the number of Hispanic residents of high-poverty areas increased dramatically due to the growth in this population. In contrast, poor non-Hispanic whites were far less likely to reside in high-poverty contexts.

Despite relatively little change in the overall poverty rates of these cities, there was a profound change in the spatial organization of poverty, leaving the poor substantially more socially and economically isolated from the mainstream of American society during this period. In the 1990s, there was a reversal of the trend, with a 24 per cent reduction in the number of residents of high-poverty neighbourhoods nationwide (Jargowsky 2003). Even after this decline, however, the concentration of poverty was still far greater in 2000 than in 1970, both in terms on the number of residents of high-poverty neighbourhoods and the percentage of the poor living in such areas.

A number of factors have contributed to the increasing concentration of poverty. When the economy is particularly bad in a given metropolitan area, resulting in higher poverty rates in the general population, poverty tends to become more concentrated as well. But the overall national increase in the concentration of poverty cannot be attributed to the economy, since the economy was far stronger in 2000 than in 1970. The concentration of poverty will also be higher when minority groups, who have much higher poverty rates than the white majority, are clustered in segregated neighbourhoods (Massey 1990; Massey and Denton 1993; Massey and Eggers 1990). Yet segregation by race and ethnicity has been on the decline since 1970 (Farley and Frey 1994; Harrison and Weinberg 1992). Other things equal, the declines in racial and ethnic segregation since 1970 should have led to lower levels of concentrated poverty.

Since neither the economy nor segregation by race and ethnicity can explain the secular trend in concentration of poverty, another

force must be at work. The prime suspect is the spatial reorganization of metropolitan areas, especially the continued depopulation of the core and the growth of economically homogeneous suburban rings. Inner-city neighbourhoods are embedded in metropolitan housing markets in which the dominant trend since at least the end of the Second World War has been de-concentration (Berry and Gillard 1977). Suburbs at the far edges of metropolitan areas have grown explosively in recent decades; typically these new developments consist of large homes that are affordable only to higher income families.

As the most advantaged group moves to the new developments from the slightly older suburban areas, middle-class families follow in their footsteps, moving from inner-ring suburbs or central city neighbourhoods. This process of selective out-migration systematically reduces the income level of the residents left behind in the neighbourhoods nearer the centre of the metropolitan area. In the 1970 to 1990 period, the result was a rapid increase in the number of high-poverty neighbourhoods in the urban core (Jargowsky 1997). In the 1990s, many of these areas were re-developed, housing projects were torn down, and gentrification was spurred by the strong economy. However, the out-migration pattern still led to consistent increases in poverty in the inner-ring of suburbs as the outer ring continued its explosive growth (Jargowsky 2003).

Despite decades of small declines since the passage of landmark fair housing legislation in 1968, racial segregation remains at very high levels in the United States at least for Blacks and Whites. The Index of Dissimilarity, a commonly used measure of segregation that varies from 0 (no segregation) to 100 (complete segregation), fell 3.6 points from 67.9 to 64.3 between 1990 and 2000. To interpret the later figure, 64.3 per cent of all Black residents would have had to move to a different neighbourhood to achieve an even distribution of Whites and Blacks. The levels are

particularly high, and the declines since 1970 are particularly small, in those cities with a high population black in the population.

Suburbanization could have easily contributed to a decline in segregation by race if newly developed neighbourhoods were settled in less segregated fashion than the existing highly segregated neighbourhoods. However, this did not occur, because of the economic exclusivity of new suburban construction, racial discrimination by home sells and real estate agents, and preferences for same-race neighbourhoods by Blacks and Whites alike. As one test, if all Blacks and Whites who moved into rapidly growing neighbourhoods had moved without regard to race, the decline in the Index of Dissimilarity would have been nearly three times larger: 9.4 points instead of 3.6 points as noted above.

2.4. Conclusion

Suburban development in the U.S. obviously has many contrasts with the peri-urban development patterns on display in large Indian metropolises, or for that matter with European cities. While the pattern is completely different, there are nevertheless common themes that arise from a comparison of the different metropolitan development paradigms. Perhaps the strongest conclusion is that suburbs or peri-urban zones cannot be understood in isolation from the larger metropolitan context. They are not islands in the sea, with their own social and economic logic that can be fixed by geographically specific programs. Rather they are an outcome of a neighbourhood differentiation process, driven by government structures, public policies, social and cultural norms, and other factors. The process produces a continuum of neighbourhoods in particular geospatial arrangement, and the arrangement has consequences for the opportunities of the poor to participate meaningfully in the economy.

Neither the U.S. nor India can assume that it will not start to observe the pattern of the other emerging on their shores. In India, globalization and cross-fertilization of well-to-do Indians who move back and forth has resulted in a taste for large, suburban style dwellings. Noida, a peri-urban zone of Delhi, has horrid slums but also areas that resemble the gated communes of many U.S. metropolitan areas. Growing inequality in the U.S. income distribution as well as the demand for urban amenities has resulted in significant gentrification of the urban core as well as some signs of poverty spreading to the suburbs, in a reversal of earlier trends. Despite, or actually because of the differences in the economic, legal, and social contexts of urban development, as well as profound differences in the resulting metropolitan patterns, a comparative approach to metropolitan development illuminates the fundamental forces behind the process of suburban/peri-urban change.

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III

Examining the Peri-Urban Interface as a Constructed Primordialism

Pushpa ARABINDOO

I am not of the city. Because the city does not exist at its core, nor in the throngs of downtown, not in the gated residences of Alipore, not in the crumbling splendour of its colonial past, not in the dust and traffic of bulging thoroughfares. The city is here on the fringes. In the pasture.

(Roy 2002)

3.1. Introduction

The framework proposed by V. Dupont[1] for the study of peri-urban dynamics in large Indian metropolises outlined two major hypotheses. The first concerns the non-neutrality of location in the metropolitan areas whereby the urban peripheries are indicative of processes involving a political and societal vision of the city and access to the city. The postulation here is that the dynamics of transformation of peripheral spaces is not independent of the dynamics of the more central areas of the metropolis. The second relates to the social and cultural overlap evident in the settlement patterns of the metropolitan peripheries. These are presented as complex structures that are characterised by heterogeneity and segmentation, creating new forms of segregation, polarisation, and socio-spatial fragmentation between the original village clusters and the new settlements catering to both the rich and the poor.

This paper argues for the need to view the peri-urban condition as a constructed primordialism, in the sense that, while the borderland condition often found along the urban-rural boundaries is a primordial given, the peri-urban interface in itself is a construction conjured up by metropolitanisation, a phenomenon that has come to dominate the urbanisation process in all major cities. In this light, this paper considers the metropolis as the new urban condition, first analysing the debates in the western context focussing on the suburb and its accompanying sprawl as a process of peripheralisation that is unique to the metropolis. Various scholars have tended to focus on different aspects of the concerns brought about by suburbanisation, ranging from the culture of mechanisation, socio-economic segregation, environmental degradation, governance and management issues, among other things. Of late, some writers have begun to link

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[1] See Véronique Dupont's Introduction to this *Occasional Paper*.

metropolitan morphology with global capitalism and its related thesis of postmodern urbanism. While critics remain sceptical of any kind gestures towards the understanding of the metropolis in its modern or postmodern avatar, planners and politicians, in developing cities, in continuing to revere the strategies of developed societies have applied metropolitan planning principles in an unadulterated form to their own context with pontifical certainty. Rather than falling prey to a complex definitional debate distinguishing modernism and postmodernism, this paper sticks to a simpler periodic arrangement wherein modern urbanism indicates the modernisation and development debates of the 1960s and 1970s, while a postmodern form refers to the urbanism that developed in the liberalised era of the 1980s and 1990s. In the first phase, master planning processes were pursued relentlessly by development authorities in different cities in India often by merely drawing up a metropolitan boundary that was nothing more than a cartographic whim but which have nevertheless effected an irreversible change in the urban landscape. Since the 1980s, the officially sanctioned pursuit of a liberalised attitude to planning and development has highlighted the heterogeneity and segmentation of peripheral settlement patterns. The complexity and contradictions present in this mosaic have been augmented by the recent transgressions of global capital at the peripheries. The resulting socio-economic and socio-cultural overlap creates a new set of conflicts and negotiations that are just beginning to be identified. Thus, one of the objectives of this paper is to expedite the process of understanding the emerging conflicts and locate them in the overall context of transformation, including the planning issues, its much retrenched approach and priorities, the expanding role of privatisation and its agents, and the increasing reliance of the citizens on the latter rather than the former for the provision of essential services such as housing.

3.2. Metropolis: The New Urban Condition

Against Harvey's (2000, p. 7) milder claim that the twentieth century has been the century of urbanisation, Angotti's more pointed decree (1993) that the twentieth century has been the century of the metropolis seems closer to truth, one that is ratified by the declaration of Sharpe and Wallock (1994) that in the last few decades, the United States has become a suburban nation. In the post-war period, the metropolis has become emblematic of urban growth in the cities of both the developing and developed world. The transformation of the relationship between the city and its countryside had of course started much earlier after the industrial revolution, whereby the symbiotic relationship between the city (emphasised by the presence of manufacturing and trade), and its food-producing agricultural hinterland had mutated into a more parasitic one. The mutuality evident in the urban-rural nexus is no longer evident in the more sinister urban-suburban condition (a minority of scholars including Gottmann (1989) and Stanback Jr. (1991) do maintain that the relationship between the city and its suburbs is still symbiotic). What is also evident is the process of reversal that had set in. There was no longer a need to wall in the city or to protect it from the aggression of the countryside, rather, walls had to be constructed to protect the surviving remnants of greenery from the expansion of bricks and mortar. Toynbee (1970) aptly referred to these newly mechanised cities of the post-industrial revolution era as cities on the move, indicating their tendency to be boundless and dynamic (see Fig. 1). Although his conclusion that these cities will coagulate into megalopolises merging to form an Ecumenopolis seems a tad out of fashion now, his prediction regarding the formation of World-Cities and their pseudo-*rus in urbe* suburbia (Toynbee 1970, p. 201) rings spookily true today.

Figure 1: The urban-rural interface as a constructed primordialism. .

This image illustrates the urban condition set within the larger context of the rural countryside, wherein the urban-rural boundary is constantly challenged by the expanding pressures of urban sprawl and perhiperal growth; seen here is an aerial view of La Roche-sur-Yonne, western France

Source: Geoffrey and Susan Jellicoe (1996) *The Landscape of Man: Shaping the Environment from Prehistory to the Present Day*. p. 250 (originally from The Institut Géographique National, Paris)

In the western context, the growth of the metropolis fed by the culture of mechanisation thus recast a previously distinct urban-rural dichotomy into a more dubious urban-suburban format, a condition that Angotti (1993, p. xiii) disparagingly refers to as 'an environmentally unsound model of metropolitan growth centered on sprawled development, the automobile and wasteful consumption'. While alarm bells have been ringing over the rapidity of urban expansion and its uncontrolled growth in developing cities, advanced cities still remain the *genius loci* of a metropolis. Statistics too point in the same direction. If one were to go by the definition of a metropolis as a million plus city, then the United States is the most metropolitanised country in the world with 55 per cent of its population living in metropolitan areas (Angotti 1993, p. 27). In contrast, for India, figures based on the 2001 census[2] reveal that little over 10 per cent of its total population live in million plus urban agglomerations. It is against this numerical argument that the American literature merits some attention.

3.2.1 Metropolis: Version Modern

Debates on suburbia and suburbanisation singularly dominate the discussions regarding the impact of metropolitan development on American cities. Thus, when Muller (1981) called suburbia as the essence of the late-twentieth century American city, representing a wholly new metropolitan reality, he was merely echoing the tendency of his peers. Never mind the fact that often the tone adopted was derisory as is evident in Jackson's seminal work mockingly titled as 'The Crab-grass Frontier'. Yet, other scholars have been more sympathetic to this typology, including Fishman's allowance that describes it as the 'bourgeois utopia' (1987), and Garreau's celebration of the edge cities (1991). More recent discussions have taken a deviation to evaluate the environmental efficiency of suburbanisation, and under the mantle of sustainability, promotion of smart growths to restrict sprawl has taken over. This is best summarised in the wave of

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[2] The 2001 Census of India records a total population of 1,027 million with just under 108 living in million-plus urban agglomerations.

popularity that the new urbanism movement has been riding in America[3]. While the varying incantations expiating the ills and evils of suburbia continue, a separate realm of literature that is devoted to discussion of planning and managing the metropolitan area still commands some attention. Many American writers continue to remain preoccupied with the issues of managing the new metropolitan region. Since this has had a large impact and influence on the metropolitan development of Indian cities, the next few paragraphs will be devoted to the examination of this aspect.

Metropolitan planning and management straddled successfully the pendulum swinging between urbanisation and regionalisation, particularly rampant in the 1970s[4]. Initial studies of urban growth followed the Chicago School of Thought (see Fig. 2), where, as pressures are placed on the urban centres, expansion takes place in concentric rings, with concerns arising as the suburbs incorporate themselves separately from the city. Toynbee recognised that these newly formed suburbs not only reduced the tax revenue of the city, but drained the mechanised city's life-blood as well, alleging that they are neither venerable nor estimable, standing for nothing but the sly collective selfishness of an excessively privileged minority (1970, p. 222). Few years later, Zimmer (1975, p. 76-7) echoes a similar argument that city taxpayers pay more in local taxes than their suburban counterparts who do not share in the high costs of city services. Accompanying this flight was the problem of governance with the proliferation of local government units, with the outlying areas attempting to replicate city government functions in what Garreau (1991) refers to as the formation of a 'shadow government' or a privatised proto-

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[3] The publications of the Urban Land Institute (ULI) have been instrumental in disseminating new urbanism positively as a smart growth strategy.

[4] One of the prominent scholars on metropolitanisation, T.G. McGee sets the record straight by clarifying that the metropolitan syndrome is a region-based urbanisation as opposed to the earlier traditional pattern of city-based urbanisation. See McGee, T. G., et al. eds (1995, p. 10). *The mega-urban regions of Southeast Asia,* University of British Columbia Press, Vancouver.

government that 'can tax, legislate for, and police their communes, but they are rarely accountable, are responsive primarily to wealth (as opposed to number of voters), and subject to few constitutional constraints' (Dear and Flusty 1998, p. 55). The magnitude of this fragmentation is highlighted by the fact that an average US metropolis has over 300 local governments (Angotti 1993, p. 183).

Figure 2: The concentric ring theory from the Chicago School.
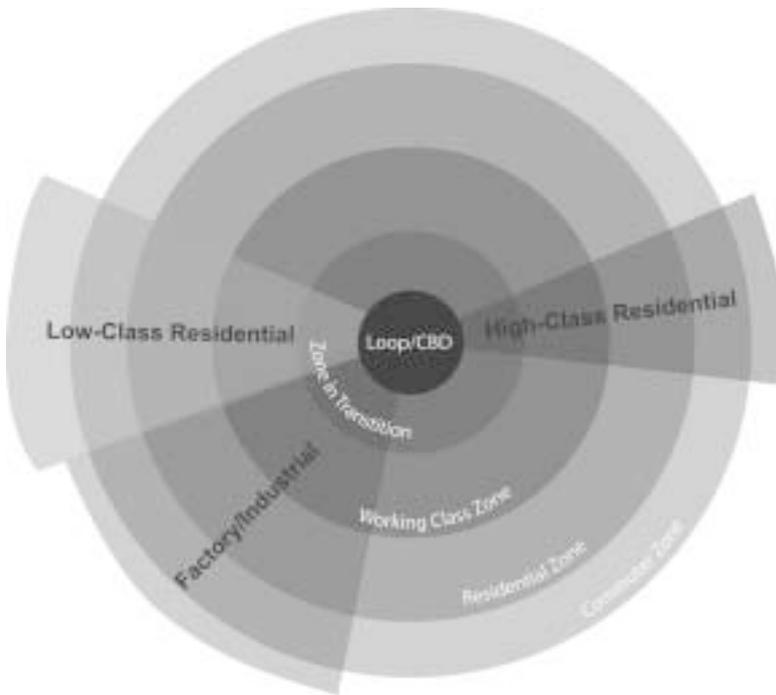
In 1928, Burgess suggested a growth model for the city wherein the city grows radially through a series of concentric zones—from the valuable land at the centre through the zone of transition, the zone of working class homes and the zone of better residences to the commuter zone. This was subsequently revised by Hoyt in the late 1930s who said that rather than through rings, growth took place in homogenous pie-shaped sectors that extended radially from the centre towards the periphery of the city.

In the classic approach of 'the problem is the solution', a metropolitan government was presented as a strategy to address the decline of inner-city areas and the flight to the suburbs. By encircling the areas that people were fleeing from, and the areas they were fleeing to in the same boundary, Kirby (2002, p. 371) reckons that the planners and politicians sought 'to keep the family together', or so to speak analogically. It is in this vein of argument that researchers at the Brookings Institute, and politicians such as Orfield (2002) proposed the concept of 'Metropolitics' championing for regionalism and an enduring political alliance between the cities and its suburbs, promoting the sharing of both benefits and burdens at the regional scale (see Fig. 3). Their premise was that a larger government in the geographical dimension is a better government in the social dimension, an assumption that has had its own share of critics. Kirby, in maintaining that the metropolitan movement is a distorted way of viewing the city, has pointed out that 'redrawing the boundary lines is no quick fix to social, political or economic problems, but unfortunately, that does not seem likely to halt the diffusion of the metropolitan reform movement any time soon' (2002, p. 372). It this idea of a larger regional circling-in, that, planners of developing countries referred to in framing the development of their cities, and which formed the logos and ethos of their planning documents and policies.

Figure 3: The metropolitan area of Washington DC.
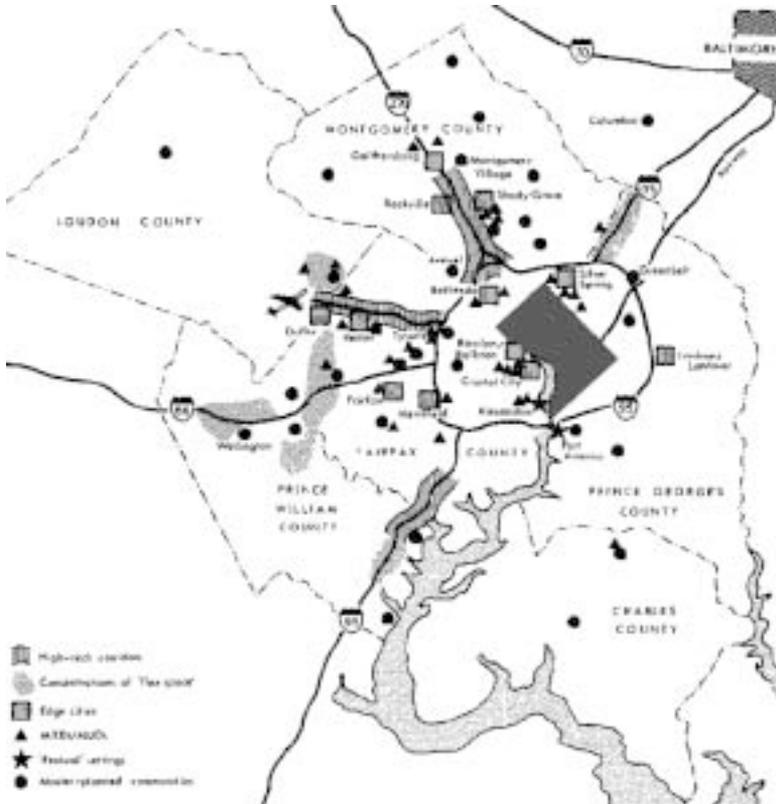
A popular example of metropolitan governance in the US.

Source: Knox, P. L. (1991) The Restless Urban Landscape: Economic and Sociocultural Change and the Transformation of Metropolitan Washington, DC, *Annals of the Association of American Geographers,* vol. 81, no. 2, pp. 181-209.

3.2.2 Metro-fit: Modernising the Third World City

Urbanisation in the developing world took off at a momentous pace after the Second World War, a milestone that also marks the end of colonialism and the emergence of newly independent

nations across the globe. One major aspect that differentiates the urbanisation process in the colonial and post-colonial period is the shift in urban explosion from the developed to the developing world. Thus, if at the turn of the last century, most of the million plus cities were in the advanced capitalist countries, with London the largest of them all, then at the turn of this century (Harvey 2000, p. 7), the scale has tipped towards the South. Sivaramakrishnan and Green (1986, p. 4) had predicted that by the turn of the century, of the 414 million-plus metropolises, 264 would be in developing world, which is nearly two-thirds of them. Until the Second World War, the principal cities of South and East Asia remained relatively small. The industrialisation and urbanisation policies followed by these countries in their post-independence period resulted in explosive urban growth and change (see Fig. 4). To tackle these issues, their cities looked to the experience of the developed countries, channelled through the Bretton Woods institutions, namely the World Bank and the International Monetary Fund (IMF). Corbridge recollects the development strategies that were popular in the 1950s till the 1970s—'[t]he Third World was to be developed – to be modernized – by virtue of its attachments to a wider process of westernization' (1993, p. 179). Thus, in attempting to manage the urban crisis, most developing cities, with an almost perennial affliction, looked to the management experience of the Western metropolises. The mechanisation of cities that resulted in the metropolitan growth was synonymous for them with the modernisation drive.

Figure 4: Evolution of Jaipur
a. Foundation of the city in eighteenth century.
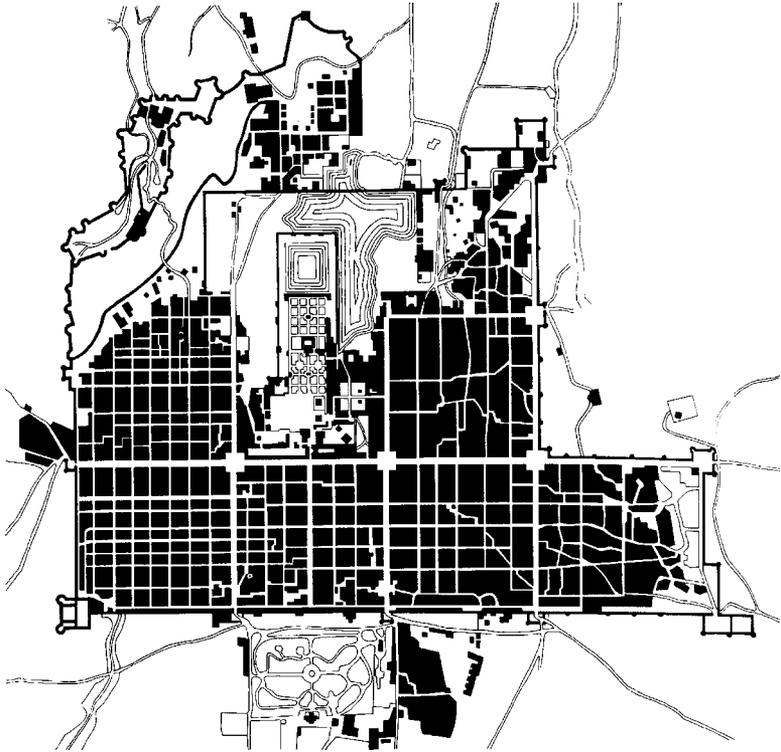
Source: Rowe, C. and Koetter, F. (1984) *Collage City.* Cambridge, MA: MIT Press.

Figure 4: Evolution of Jaipur
b. Metropolitan Jaipur today.

The eighteenth century morphology of the planned city reveals a crisp delineation of urban form set clearly against its natural context. Unfortunately this is completely lost in the twenty-first century metropolitan sprawl.

An initiative that was copied studiously was the preparation of master plans for a wider region, with the city seen as the nucleus of a larger metropolitan region including the rural hinterland. Stockholm had already set the example by preparing a master plan, developed and implemented by a regional association of local governments including the City of Stockholm and twenty-two other jurisdictions. A similar Regional Plan Association was formed for New York, though used less effectively (Angotti 1993, p. 177). Delhi took the lead in 1961 when a first master plan was developed for a twenty-year period, and which was subsequently approved in 1962. This plan was prepared with the help of American expertise supplied by the Ford Foundation (Baviskar 2003, p. 90). A metropolitan development authority was set up, and under the name of Delhi Development Authority (DDA) identified a metropolitan area with a radius of 25 square miles from its urban core (see Fig. 5). While the primary aim was to tackle the flood of refugees and immigrants, a strong tone of decongestion and decentralisation pervaded the plan. Despite a series of criticisms levelled against the master plan, ranging from lack of public participation to systematic implementation initiatives, the inappropriate length of the time-frame, etc. (Datta 1983, p. 6), DDA plodded forward, simply out of habit, with the preparation of the second master plan for a similar time period from 1981-2001. This time around, its role was rather altered, as it transformed itself from a state-controlled body with a monopoly over envisioning and implementing its plans, to a mere accomplice of private capital that had taken itself to speculating with the various spaces of the city. More on this will be covered in a later section.

Figure 5: Masterplan of Delhi and its metropolitan area.
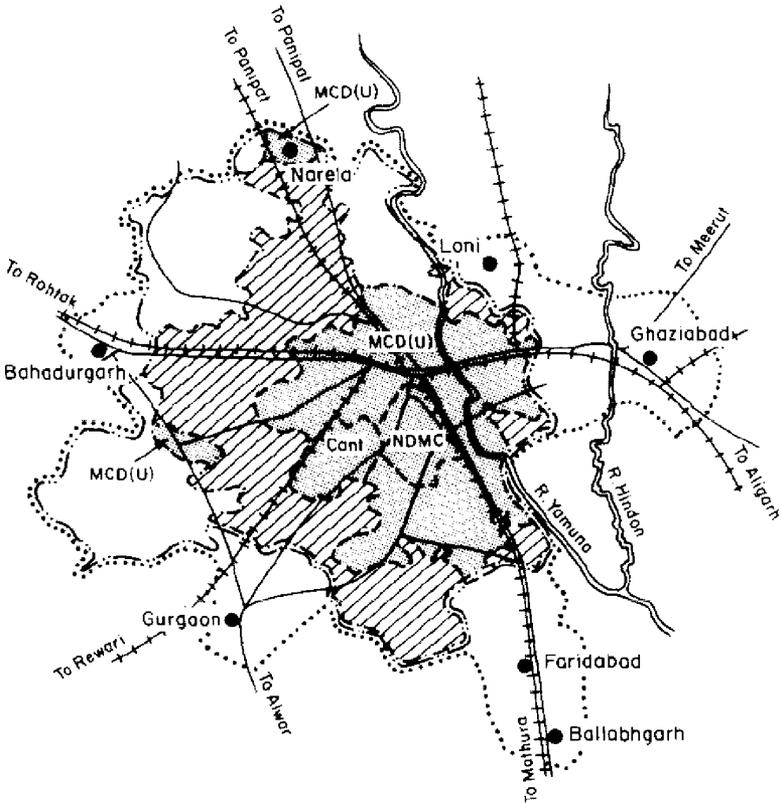
Source: Datta, A. (1983) Delhi, *Cities*, vol. 1, no. 1, pp. 3-9.

In a similar vein, the Calcutta Metropolitan Planning Organisation (CMPO) was first established in 1961 after the state government's efforts to mandate planning in the 35 municipal bodies in the Calcutta metropolitan area proved futile. In 1965, the Calcutta Metropolitan Planning Control Act was passed as the two earlier acts, the 1909 Town Planning Act and the 1911 Calcutta Improvement Act had failed to capitalise on the initial momentum. A basic five-year development plan with strategies for future growth was created, and in 1970, the Calcutta Metropolitan Development Authority (CMDA)

was created to coordinate new development (Angotti 1993, p. 179). Such authorities instead of producing feasible master plans have only triggered popular disenchantment. The frustration of having a master plan with no immediate usefulness is best highlighted by Roy (2002), when she describes her attempts to locate land ownership records at the periphery of the city. According to her, '... cartography as an instrument of developmentalism, a tool by which modern states supervise and articulate their territories', seemed to be missing (Roy 2002, p. 135). More than anything, the process of metropolitan master planning had only helped to blur and exclude the fringe areas that could then easily become a prey to dubious yet powerful encroachments. While she is frustrated with this deliberate unmapping of the city, she does recognise that the CMDA is an organisation of unprecedented power that is bureaucratic and unelected while imposing itself on a bewildering array of other public agencies and weak local authorities (Roy 2002, p. 135). In 1997, both the municipal corporation and the CMDA were eventually taken to court over their inability to prepare a master plan for the city.

Until the 74th amendment was made to the constitution in 1993 requiring the devolution of powers and the presence of elected representatives to the local bodies, most local authorities had been superseded by larger state or para-statal entities in the 1960s and 1970s. In the case of Chennai, an Interim Plan had been prepared in 1967 by the state government for an area delineated as the metropolitan area. This was followed by a twenty-year metropolitan plan for the 1971-91 time period. In 1973, following a corruption and financial fraud scandal, elected parts of the Corporation were dissolved. Since then and up to October 1996, local elected bodies had been absent in Chennai. From 1974 till 1996, a state-appointed special officer administered the Corporation. The state government established a Metropolitan Development Authority in 1973, which after acquiring statutory footing in 1975 was required to interpret and implement the plan. True to the tendency of the state government to tamper with the

provision of various urban services, different para-statal organisations had been set up in the 1960s and the 1970s, all of them operating on a metropolitan scale at the least. The Tamil Nadu Housing Board (TNHB) established in 1961 and the Tamil Nadu Slum Clearance Board (TNSCB) in 1971 deals with the provision of housing, and slum clearance, resettlement and slum improvement respectively. Similar bodies have been set up to monitor transport, water supply and sanitation, electricity, pollution etc. But the Chennai Metropolitan Development Authority (CMDA) remains the most significant institution of all. Sivaramakrishnan and Green (1986) detail at length the functions of this body:

> As outlined in the Tamil Nadu Town and Country Planning Act, 1972, the MMDA's[5] [now called the CMDA] functions are to carry out surveys of the Metropolitan Area; prepare master plans, detailed development plans, and new town development plans for the area; prepare land use maps and other maps needed for development plans; ensure that the works contemplated in development plans are carried out; designate the whole or any part of the Metropolitan Area as a new town and prepare development plans for the area concerned, develop the new town as planned, and perform any other function entrusted to it by the government; and entrust to any local or other authority, by order, the execution of the development plans prepared. (Green 1986, p. 227)

Although, the CMDA itself does not have any significant source of revenue other than a surcharge on municipal taxes

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[5] Chennai was formally known as Madras. In September 1996 the name of the city was officially changed by the State Government of Tamil Nadu, in an attempt to indigenise a colonial name. Thus, when the authority was first established, it was called as the Madras Metropolitan Development Authority, which after the name change was rechristened as the Chennai Metropolitan Development Authority.

and contributions by local authorities[6], its role has evolved from a mere land use planning agency to taking a central position in metropolitan management (Green 1986, p. 242). There have been two stumbling blocks in recent years as well. One is the long-standing fact that while the CMDA undertakes non-statutory capital budgeting for the metropolitan area on behalf of the State Finance Department, this is completed only through a long drawn out process of negotiation and persuasion. The other impediment is the reformation of urban local bodies and the resulting appointment of a mayor for the city corporation. The state-appointed commissioner continues to be the only local government representative in the institution's board, and thus the CMDA officials are often found locking horns with the elected representatives including the Mayor and the councillors.

While the recent focus has shifted to the role and influence of the CMDA in the development programming and administration of the Urban Development Project (UDP) at the insistence of the World Bank, underplaying its function as a planning body, what is often at remiss is the more powerful impact that the development control rules (DCR) have on the transformation of the urban landscape. Lakshmanan and Ratner have pointed out that '[t]he Master Plan consists of two interrelated parts: a Land Use Plan, which designates uses for the entire MMA [Madras Metropolitan Area], and the Development Control Rules, which, together with local government building regulations, stipulate conditions of compliance for development'

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[6] Since 1999, the CMDA has annually announced regularisation schemes for unapproved developments. In 2000, it was noted that there were 350,000 deviations in the city of Chennai alone. By 2002, nearly 50,000 applications had been received. The CMDA expected to garner nearly Rs. 100/- from this drive. But till date none of this amount has been channelled fund development projects. See http://www.thehindu.com/2002/07/05/stories/2002070506830300.htm; http://www.hinduonnet.com/2000/11/04/stories/0404401k.htm (accessed 27 November 2003)

(1985, p. 83). They tend to emphasise more on its downside as a result of discrepancies and overlaps with the building regulations and rules of the local bodies, and go to the extent of stating that '….there is little hard evidence regarding the total effect of development control on the location and character of growth in Madras' (Lakshmanan and Ratner 1985, p. 85). On ground a slightly different picture emerges, where not only is the impact of developmental regulations on the built form quite evident, but also the way the outline of the city reveals the recent trends of metropolitan planning to liberalise and attract private interests in shaping the city. Roy's contention in regards to Calcutta (2002) is universal as the metropolitan development authorities all over legitimised the peripheries but left these areas intentionally unregulated in fuzzy zones that could be harnessed in the climate of liberalisation. For a better understanding of this, the next section will examine the tailoring of the metropolis to match the growing sphere of postmodern urbanism, first focussing on its evolution in the West and then discuss its implications in the Third World city.

3.2.3 Metropolis: Version Postmodern

If the Chicago School of Thought relied on the urban ecology of its city to frame its concentric ring theory, a model that persisted through the post-war boom era, then in the contemporary period, a new school of ideology has been developing in Southern California that seeks to formulate through their examinations of Los Angeles, a paradigmatic definition of a broader socio-geographic transformation taking place within the United States, one that could serve as a broader concept of postmodern urbanism. This perspective has had an impact on metropolitan analyses as well, where the simplistic dichotomy of the urban-suburban or the core-periphery model has been disbanded to address better the complexity of the postmodern condition. Harvey (2000, p. 9,10) summarises this best when he says that:

… the evidence suggests a dissolution of that simple 'doughnut' urban form of inner-city decay surrounded by suburban affluence (made so much of in the late 1960s), and its replacement by a complex checkerboard of segregated and protected wealth in an urban soup of equally segregated impoverishment and distress.

Figure 6: Checker-board city
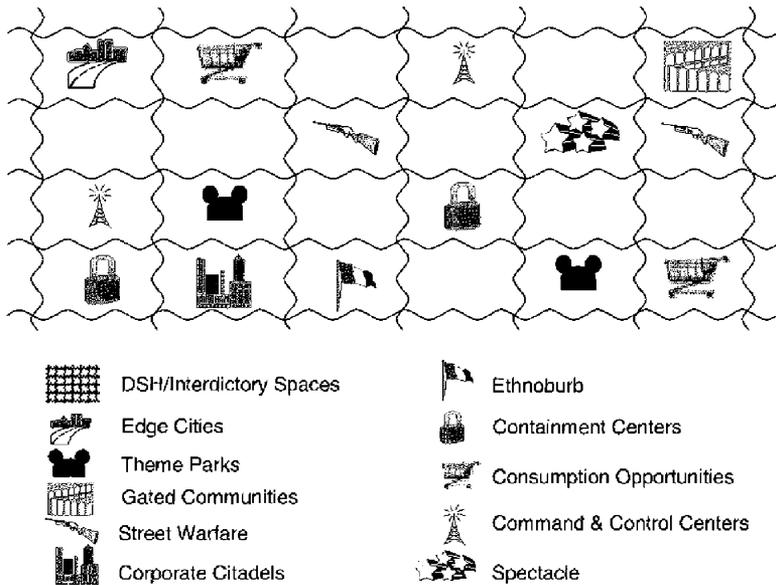
Source: Dear, M. and Flusty, S. (1998) Keno Capitalism from Postmodern Urbanism. *Annals of the Association of American Geographers*, vol. 88, no. 1, pp. 50-72.

It is not for the first time that the core-periphery model is being rejected. Since the 1970s geographers sought to favour the concept of a polynucleated metropolis (see Sharpe and Wallock 1994). Gottdiener and Kephart's (1991) more recent employment of the phrase 'multinucleated metropolitan regions' thus only proves to be a repetition. At the same time,

Knox (1991) began to address the changes in the built environment of US metropolitan areas, dubbing them as the 'restless urban landscape', a term he borrows from Harvey. He constructed his arguments based on the changes triggered by the transition from a fordist industrial capitalism to the post-fordist advanced flexible capitalism. He clearly classifies his work as an attempt to 'read the inchoate landscapes of the postmodern metropolis' (Knox 1991, p. 188). For him, while the centre still exists, albeit with a gentrified downtown retrofit, the peripheries are reconstituting themselves as edge cities (*à la mode* Garreau 1991). While Knox delineates fragmentation, multi-modality, fluidity, pluralism and diffusion as evident features typical of this new urban metropolitan landscape, he is reluctant to commit to it as the new prototype. It was not until a consistent body of work was piled up by the scholars from Southern California that a typological shift occurs from the still-in-use Chicago School to the beginnings of a Los Angeles School. The prototypical urban structure coming out of the Los Angeles School retains the polynucleated form with an added focus on the new power structures at the peripheries. Soja remarks on the decentralised polynucleated sprawling geography of Los Angeles, where the peripheries emerge strongly in what he refers to as the peripheral urbanisation (Soja 1989, pp. 208-212), and declares Los Angeles as the paradigmatic window through which to see the last half of the twentieth century (Soja 1989, p. 221). The arguments emerging from this school strive to establish a postmodern urbanism, one that is strongly tied to the effects of global capitalism, and offers a kaleidoscopic view of the peripheries. Dear and Flusty (1998) take this a step further and declare a consumption-oriented landscape marked by global restructuring, devoid of conventional centres as the hinterland begins to organise the centre. With their identification of a 'protopostmodern urban process' that is

driven by a global restructuring, and 'whose built environment, reflective of these processes, consists of edge cities, privatopias, and the like' (Dear and Flusty 1998, p. 59), and Soja's proclamation of a post-metropolis (2000), the reincarnation of the metropolis in the postmodern era seemed complete. Again, as had happened in the earlier decades of the 1960s, the developing cities found much to learn from in the reformatted post-metropolis.

Figure 7: Poly-nucleated metropolis
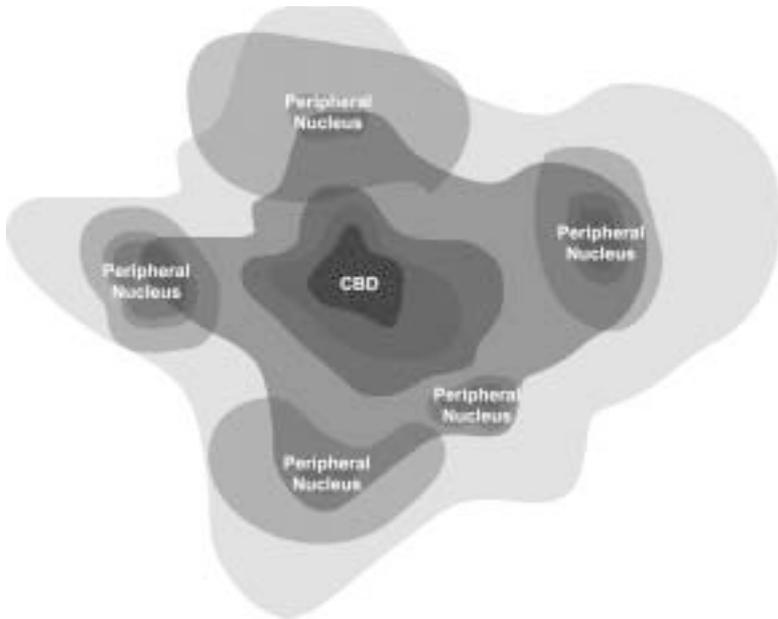
Literature arising out of the LA School argues for a poly-nucleated condition wherein cities do not grow from a single-centre CBD but are formed by the integration of several small towns or nuclei, particularly at the peripheries.

3.2.4 Metrofit: Postmodernising the Third World City

In 1995, Potter and Unwin developed a critique of their own earlier edited volume on the geography of urban-rural interaction in developing countries, where they saw the gravitation of global capital to urban cores in developing countries, enhancing as a result the inequalities between urban and rural areas, and the implications of which are seen in the physical emergence of integrated metropolitan-rural complexes. They stressed that in the longer term, greater metropolitan regions will emerge as the economic and political heartlands of the global economy (Potter and Unwin 1995, pp. 68-72). No other location has displayed best this effect better than the stupendously growing metropolitan regions of South-East Asia.

Be it Jakarta, Kuala Lumpur or Bangkok[7], all of them unilaterally embark on a conversion to the dispersal of multiple cores within a largely expanded region, wherein the metropolitan structure has become necessary for both domestic and foreign investment (see Fig. 8). A clear interrelationship between the globalising imperatives and the emergence of an extended urban region is thus established. Services begin to be concentrated in the centre (similar to the downtown renaissance witnessed in the American cities), with manufacturing, industrial parks, and privatised exclusive communes locating on the peripheries.

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[7] For Jakarta, see Firman, T. (1998) The restructuring of Jakarta Metropolitan Area: A "global city" in Asia, *Cities,* vol. 15, no. 4, pp. 229-243.

For Kuala Lumpur, see Bunnell, T. et al. (2002) Kuala Lumpur metropolitan area : A globalizing city-region, *Cities,* vol. 19, no. 5, 357-370; Thong, L. B. (1995) Challenges of Superinduced Development: The Mega-Urban Region of Kuala Lumpur-Klang Valley. In: Robinson, I. M. ed. *The Mega-Urban Regions of Southeast Asia.* University of British Columbia Press, Vancouver.

For Bangkok, see Sheng, Y. K. et al. (1995) Housing Women Factory Workers in the Northern Corridor of the Bangkok Metropolitan Region. In Robinson, I. M. ed. *The Mega-Urban Regions of Southeast Asia.* University of British Columbia Press, Vancouver.

Figure 8: The Jakarta Metropolitan Region often referred to as the JABOTEK area.
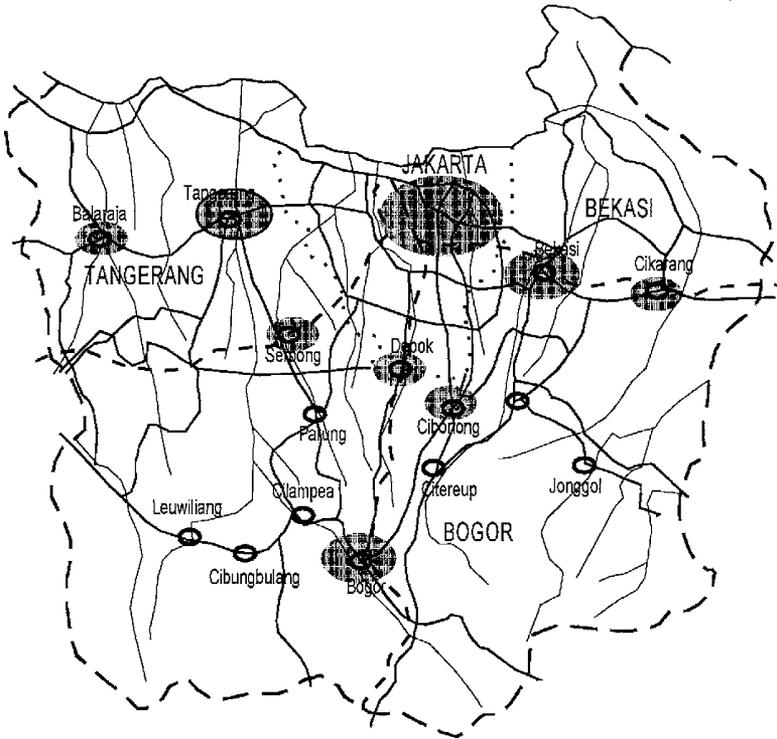
Source: Firman, T. (1998). The restructuring of Jakarta Metropolitan Area: A "global city" in Asia. *Cities*, vol. 15, no. 4, pp. 229-243

By pointing out to the compounded presence of differing activities at the peripheries, and declaring that it is there that many of the defining processes are being anchored today, they have provided a template for locating the arguments in relation to the second hypothesis of this paper, that is, the heterogeneity and fragmentation of the settlement patterns in the periphery conditioned by the socio-economic and socio-cultural overlap.

Aguilar and Ward (2003) note clearly in the case of Mexico City that the development of mega-cities construes a clear focus on peripheral areas where most of the changes associated with the impact of globalisation are taking place. Referring to them as the 'penumbra surrounding mega-cities', they clarify that the pattern of expansion is more akin to networks linking the polycentric expansion, with a pattern of mixed uses emerging at the peripheries 'where traditional agriculture is found side by side with new housing projects, industrial estates, large modern factories, recreational sites, and all sorts of suburban developments. A new architecture and a new spatial configuration of metropolitan development has [sic] emerged' (Aguilar and Ward 2003, p. 7).

3.2.5 Complexity and Contradictions at the Unregulated Margins

This recognition forces a reconsideration of some earlier attempts to whitewash the periphery as the zone for the poorer in-migrants as it is the farthest from the core of the city and carried little infrastructure with it (somewhat in a reversal of Burgess's concentric ring theory when he said that populations filtered outwards from the centre as their status progressed). Such jumping the gun arguments are evident for instance in Thangavel's (2000) observation in Chennai that unapproved subdivisions tend to be located in the peripheries and therefore cater to lower-income groups, being cheaper due to the lack of services and not having to go through the added cost of the approval process.

It needs to be confessed that there was a point when peripheries and marginality was considered tautological, one that has now become oxymoronic with the entry of global capital. Caldeira best brings out this transformation when she documents the transformations of Sao Paulo:

> From the 1940s to the 1980s, a division between center
> and periphery organized the space of Sao Paulo, where

great distances separated different social groups; the middle and upper classes lived in central and well-equipped neighbourhoods and the poor lived in the precarious hinterland……In the 1990s, the physical distances separating rich and poor have decreased at the same time that the mechanisms to keep them apart have become more obvious and more complex….the 1980s and early 1990s were years of economic recession, with very high rates of inflation and increasing poverty….The periphery of the city became unaffordable for the poorest. Since the 1940s, the working classes had been building their own houses in the periphery of the city in a process called 'autoconstruction'….Since the mid-1970s, social movements organized by homeowners associations in the periphery have pressured local administrations both to improve the infrastructure and services in their neighbourhoods and to legalize their land…The most recent process, however, concerns the displacement of services and commerce from the inner-city to districts on the periphery…..most of them [the new enclaves for residence, work, and consumption of the middle and upper classes] have been placed in the old periphery and have as their neighbours either *favelas* or concentrations of autoconstructed houses. (Caldeira 1998, p. 115-9)

A similar trend has been traced in the Indian scenario as well. Some examples include Roy's fieldwork in Calcutta (2002) who seeks to represent the city at the margins or what she calls the rural-urban fringes where she asserts that the processes of peasant migration and urban liberalisation literally intersect. In acknowledging the social heterogeneity of the rural-urban interface, she argues that it is the 'unmapping' of the city's fringes that has allowed the proliferation of multiple territorial claims in what she refers to as the *volatile geography of Calcutta's fringes* (emphasis added) (Roy 2002, p. 139). Pointing to the emergence of 'new and shifting configurations of actors: real-estate developers, global

investors, liberalizing government officials, bourgeois urbanites, and peasants with de facto land rights', not to mention the rural migrants who join the tussle as well, she highlights the 'cacophony of land regulations that collide and merge, resulting in such ambiguity that the system of land tenure itself is rendered negotiable' (Roy 2002, p. 144). Finally, she lays the blame on the process of liberalisation that gnaws at the urban boundaries, shaping out of Calcutta's fringes fuzzy zones submerged in regulatory ambiguities (Roy 2002, p. 160).

Again in the case of Delhi, Dube (1998) in writing a memoir of rural poverty makes a fleeting remark as to why the land still belongs to the rich. Observing on how the rich manage to keep their land interests intact, irrespective of the Land Ceiling Act, he says that:

> The show piece is certainly the (roughly) 180-acre spread owned by the Oberoi hoteliers, the land alone conservatively valued at Rs. 200 crores ($ 60 million). And by the mid-1980s, farms around Delhi and other large cities were longer used for farming, but sported (in violation of building codes) huge mansions, most boasting swimming pools, tennis courts, fleets of servants, and the other necessities of the good life. (Ironically, these multi-million-dollar mansions are typically rarely used second homes.) (Dube 1998, p. 179)

A more detailed account of this misuse has been undertaken by Soni (2000) in her probe into the urban conquest of the hinterland, in her case, the 'Mehrauli Countryside' in southern outer Delhi. The largest parliamentary constituency in the entire country, outer Delhi has served the interests of almost all segments of society— the original rural classes who were subsumed by the expanded city, the growing number of poor migrants who were housed in make-shift slums, or resettled in poorly serviced colonies by the DDA, which at the same time also planned sprawling residential

complexes to the middle classes—lower, middle, and upper, as well as the unauthorized colonies that have sprung up to cater to the same class groups. Equally unauthorised are the pseudo-farmhouses of the upper echelons of the society who live in the 'arrogant complexes of palatial mansions with gardens, enclosed behind tall boundary walls', or what she also calls as the 'prized fiefdoms of the urban gentry' (Soni 200, p. 76-7). Soni tellingly points to the traits of 'internal colonialism' representing the interests of the rich and endorsed by the state in the process of 'metropolization' and 'megapolization' of Delhi in the fifty years since independence (Soni 200, p. 79). While Soni (2000, p. 86) remarks that the rural areas of Delhi's fringe were treated as un-regulated legal and social space, Baviskar (2003, p. 92) zeroes in on the DDA that since the 1980s, with liberalisation threatening its monopoly had begun to imagine a new role for itself in partnership with the private builders. Thus, land was leased to cooperative societies to house the urban professionals in the east and north-west, while also selling them outright to real estate firms that could build new suburbs in the south-western edge for the more affluent families. By her own admittance, this is only a partial account of the complex politics leading to displacement in which 'bourgeois environmentalism and master plans converge with other processes of capitalist restructuring and real-estate development' (Baviskar 2003, p. 95).

No development agency has been able to shake itself free out of this new commitment. Call it greed or lack of choice, development authorities all over have come to play partners with the new actors ushered in by the forces of liberalisation, an aspect openly acknowledged for example by the Madras Metropolitan Development Authority (MMDA) in its preamble to its Master Plan for 1991-2011:

> Now, in the last few years, there has been a tremendous change in the approach to development, and the

> perception of Government/Agencies vis-à-vis urban development. The economic development of the country is undergoing a change as part of the globalisation initiatives and consequent liberalisation policies of the Government of India….the approach to the preparation of the Master Plan has been in tune with the liberal economic and industrial policies being following by Government of India and Government of Tamil Nadu which only can lead to development of the Metro area in a meaningful sense. (MMDA 1995, p. 1-2)

Thus, the development authorities through the advantage of the ambiguous land use planning regulations and development control rules have become influential the socio-spatial transformation of the city, and in the same space have witnessed their own transformation from a mere planning body in the 1970s to the overseer of global investment manifested in the metropolitan spaces of the city.

3.3. Conclusions

What has been revealed so far is the clear ordering in time of the two hypotheses of the working brief. Thus, if the first hypothesis regarding the inter-dependency of the dynamics of transformations in the peripheral spaces to that of the more central areas refers to the early modernisation strategies of the development authorities in the 1960s and 1970s wherein the a larger metropolitan region was circled-in around the city, then the second hypothesis regarding the complexity of settlement patterns characterised by heterogeneity and segmentation underlines the postmodern dynamics of the 1980s and 1990s wherein the dynamics of global capitalism introduces a variety of actors in the metropolitan peripheries and who indulge in hegemonic contestations and conflicts over the spatial prescriptions. In an act of turning the city inside out, acute contests are clearly displayed at the edges raising issues of not only governance but also socio-spatial representations.

Peripheries are thus emerging as the new zones of reification. The *panchayat* unions find themselves inadequate against the overwhelming desires of the city corporation that in turn is overridden by the aspirations of the metropolitan development authorities. Amidst all the regulatory fuzziness, powerful private actors (mainly developers) play one form of governance against the other to harness the best for themselves, as the citizens (be it the rich, the middle class or the poor) are left to create their own geographies in a pool of contested landscape. What is more alarming is the way public services are being diverted for the glorification of an abstract global status, wherein politicians begin to look for symbolic significance in their metropolitan imagery rather than seeking solutions to the more pressing socio-economic problems, only because such concrete urban realities are not affiliated with the global platform. In this status-oriented search, peripheries have emerged out of their condition of marginality to one of centrality, making them sites of proscriptions for the poor and prescriptions for the rich.

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IV

Dynamics of peri-urban areas: from the French case to the developing countries

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4.1. Introduction

Lying between cities and villages, the extreme peripheries of urban areas suffer from a lack of definition. Yet, in most regions of the world, these areas are expanding rapidly and an increasing number of people are occupying them (Kayser 1990). In France, for instance, this urban periphery accounts for over 10 per cent of its territory and more than 20 per cent of the population. Thus, twelve million inhabitants live in the rural peripheries of French cities (Prost 2001). Researchers find it difficult to define these peripheral areas in terms of their society. They mostly define them by their spatial characteristics. Whence the primacy of geography—writing 'peri-urban area' or 'urban periphery' enables them to avoid evoking the contents in any way. It suffices to describe the 'peri-urban' as a mosaic of villages, forming a sort of third ring of urbanised suburb on the fringes of urban areas, but still retaining the characteristics of a rural landscape. It is, therefore, vastly different from the second ring, which is in direct contact with the suburbs and in which real estate and miscellaneous activities take up the major share of the land. However, this third peri-urban ring differs from specifically agricultural rural areas or those that are clearly involved in tourism, particularly around coastal towns. The population does rise in these, with a density higher than in rural villages that are further away from urban centres. But above all, these villages have a distinct transitory character, as a considerable fraction of the people living or working there commute to and fro on a daily basis. In the USA or West Europe, for instance, these areas are mostly occupied by people who reside there but work outside, driving every day to urban centres or their immediate peripheries, which offer employment opportunities along with other facilities. These people—often couples working as executives, with children, frequently with both members working—are most often new residents in these villages, having chosen to build new detached houses to live in. Thus, demographic statistics of these villages indicates high proportion of skilled workers in the

industrial and service sectors as compared to agricultural workers. This clearly differentiates them from the rest of the rural world. The density of agricultural workers has fallen in these villages, but this is just as about as true for more rural areas. Finally, in European countries, 'peri-urban' areas differ mainly due to the existence of a dual real estate market—one for agricultural land and the other for building plots, the latter obviously being priced much higher than the former.

In spite of sociological research carried out, mainly on the modalities of the residential choices of new residents and the social or political changes introduced by the influx of these new populations in these villages, no definition for a peri-urban society in West Europe has really been drafted. Indeed, drafting a definition other than a spatial definition seems to come up against a dual and paradoxical reality. On the one hand, urban peripheries are and remain a mere fraction of rural areas, characterised especially by the maintenance of social contact between the inhabitants, active both in friendships and in situations of conflict, as well as in relations with local authorities. On the other hand, peri-urban areas are totally integrated in the dynamic of the urban centres in whose periphery they are located, both in the social and spatial practices of almost all their inhabitants and in their participation in the ever-present mobility of our times, which leads them to live in an area that includes not just the entire town, but also a major portion of the rural hinterland.

The following pages, which summarise work carried out principally in France, are aimed at identifying the basic processes of the major stages of development of these peri-urban areas in the European countries, and at underlying the considerable differences that may be found as compared to the areas surrounding India's major urban centres. Thus, in the course of the study in France, peri-urban areas were first analysed as a spatial category having an interface with the city and the countryside (see for example Kayser and

Schektman 1982). The work then focused on the integration of these peri-urban areas in the dynamic of cities, as these villages constituted highly diversified and fully active peripheries (see for example Rémy 1993). Then, the integration of these areas in the overall dynamic of our Western societies was studied, bearing in mind that these societies are marked by the networking of men and institutions everywhere, by the fantastic increase and acceleration of flows and by the resulting upheavals in the relationship with time and space (see for example Cadène 1990; Kayser 1993). On the basis of the finding that apart from the limited work done on the spatial expansion of urban peripheries, very few detailed studies have been carried out on the dynamics and composition of these areas in developing countries, particularly India, the present article's conclusion aims at proposing research avenues for a multi-disciplinary analysis of peri-urban areas surrounding major urban centres the world over.

4.2. The emergence of French peri-urban areas as a spatial category

The settlement of families of urban origin in the rural periphery of towns—in communes[1] located twenty, thirty and sometimes even fifty kilometres away from these urban centres—is a phenomenon that started developing in France at the end of the Sixties.

Two closely linked factors seem to explain these new residential practices, which led to the increase and expansion of pendular migrations between the concerned urban centres and their peripheries and to a revitalisation of rural communes, generally dominated by agricultural activities, which remained predominant in the countryside.

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[1] The commune is the smallest French territorial division for administrative purposes.

On the one hand, since the Sixties, French society, like their other Western compatriots, witnessed the emergence of new middle classes, consisting of executives in various jobs, which emerged out of the post-war economic boom and the accelerated modernisation of production and trading techniques. This urban population—educated, technically qualified, relatively well-off and with a high upward mobility—found its place among the traditional petty bourgeoisie, composed of diverse social classes—professionals, traders, small entrepreneurs, private or public sector executives—who were often heir to stable backgrounds, both on matters of social hierarchy as well as that of their location and housing.

On the other hand, a movement protesting against the existing social values and hierarchy—and the urban order as a symbol of these values and this hierarchy—emerged at the same time. The May 1968 events—born in universities that were witnessing an unprecedented rise in the number of students, and eventually to be taken up by the fast-changing working class—placed these protests at the forefront of the political and social stage. In fact, members of these new middle classes, with their rising numbers, themselves carried the movement forward, dreaming of a different world and inventing new lifestyles and new political expressions (Mendras 1988). Ten years later, the wave of protests had been exhausted, due to both its success and the economic crisis that hit everyone in 1973 with the first oil shock. These events, however left an indelible imprint on the ideology of the Western societies, reflected in the criticism of bureaucracy, defence of human rights and environmental activism. The last factor is of particular import for the present study, as it highlighted the attractions of rural life and even influenced a number of people to leave the city behind them and move to the countryside to work there, and many more making a considered choice to live in a peri-urban environment (see for example, Viard 1994).

Thus, peri-urban areas emerged as the symbolic territories of the new middle classes, produced by the post-war boom, as a protest against the urban order and society within which they had to find a place of their own. Thus, a detached house with a garden (later, a swimming pool as well), which called for two cars and offered the joys of gardening and barbecues in the shade of a few shrubs, became a type of housing that illustrated a certain social success and access to the kind of well-being that was so highly praised in magazines and television advertisements. The relative isolation within an agricultural territory, envisaged as the countryside—a place for long walks and games with children, as well as the very personal rapport with local authorities and other inhabitants that is the rule in rural communes—put the new residents at an advantage, in their own eyes. The same held true for their choice of housing at a considerable distance from their place of work, often for their children's schooling, as well as a place where their shopping, health-care and cultural or sports activities were located. Indeed, the long drives required, although long and costly, were the subject of enthusiastic discourses on the beauty of the landscape, the pleasures of driving and the joys of meditation behind the steering wheel.

A residential model that surfaced with the emergence of a middle-class born into new jobs resulting from the economic boom, peri-urban housing was, nonetheless put to advantage and adopted during the Seventies and Eighties by a number of families from diverse social horizons, united in their desire to own their own home. The new residents, while often belonging to the new social classes, therefore constituted a set of families of diversified economic conditions within the communes.

However, peri-urban areas cannot be defined by new residents alone. They only constitute a fraction of the population in the concerned communes, although their numbers rise year by year. Whatever their proportion, their presence does not blot out the

populations that were already there before they settled in. Rural dwellers living in peri-urban communes still retain their ownership of most of the municipal territory, their knowledge indispensable for its use and the legitimacy necessary for the existence of a real local identity. The two populations—the newly arrived families and those already there—both play a role in the special dynamic of these peri-urban areas and define them.

4.3. Development of conflicts related to the urbanisation of peri-urban areas in France

While new residents and native inhabitants may differ on various points of view, peri-urban areas cannot be presented as areas witnessing a clash between cities and the countryside, represented by each of these groups. It is true that like all social processes, the ones that led to this spatial category were built by conflicting dynamics, by the interplay of confrontations and alliances between groups of actors organised on the basis of complex factors, in which economic interests, social standing and geographical origins all played a part. However, the processes that took place in peri-urban areas cannot be translated simply in terms of the opposition between urban and rural dwellers. The conflicts within peri-urban communes would at first, pit rural dwellers against each other. Local populations themselves were basically divided over the advent and presence of new residents. This was all the more so because, in most cases, the latter were soon closely involved in the dynamic of the local communes in which they settled down. As soon as they got there, often even while their house was still under construction, many new residents had to learn about the subtleties of social relations within the commune in which they had decided to reside. Many had to learn how to deal with the alliances and enmities ensuing from relationships between local families that often dated back to the distant past. The differences between these two populations—the one that left the city behind to find a home in the country while retaining a city job, and the

one that was already living in the country and often working there—should not, however, be overestimated. Indeed, the social changes accompanying the strong post-war growth affected both cities and rural areas. While they led to the emergence of new middle classes in the cities, which would contribute towards the urbanisation of the rural peripheries of the cities concerned, in the countryside, they led to a marked reduction in the number of farmers as well as an exemplary modernisation of work and lifestyles, both in the case of farmers as well as other rural dwellers. The end of the Seventies and the Eighties, which witnessed the emergence of peri-urban areas as a specific residential category, also witnessed the overall urbanisation of lifestyles and modes of thought. The differences between urban and rural societies did not, however, vanish, particularly from the economic viewpoint and from that of relations with the territory. In peri-urban communes, where the entire recently-arrived urban population and the native rural population lived, the differences between these two populations remained marked on these two points: they did not do the same kind of work and their relationship with the land differed radically, both in terms of ownership and in terms of its use.

Economic conditions as well as the ownership and use of land were the main reasons for the conflicts that accompanied peri-urbanisation, and therefore appeared to be the social processes presiding over their genesis and expansion.

There were three types of conflict processes (Cadène 1990). The first type had to do with the major urban development decisions made for urban centres or a fraction of them. This process took place outside the communes concerned and essentially involved institutional actors. Prior to the 1982 and 1983 decentralisation laws, members of various administrative departments concerned—mainly the Ministry of Equipment, Ministry of Agriculture and sometimes D.A.T.A.R. (Regional Planning Office)—played an important role in the debates and the ensuing

decisions. Later, their role had been curtailed, while local politicians and the territorial services divisions they managed monopolised the powers and initiatives concerned. However, the documents resulting from the work done by the commissions set up to establish the main orientations of urban development still reflected the power relationships present. Conflict generally arose between, on the one hand, the desire for a greater urbanisation of peri-urban communes, which could be promoted by direct or indirect decisions concerning the authorised densities or by providing transportation or reception facilities and, on the other hand, the desire to restrict urbanisation, as a general rule, at this decision-making level, in order not to upset the political and social balances in place too much.

The second type of conflict took place within the communes and had to do with the extent of the area to be urbanised. In this case, the actors were essentially local, although some of them resided outside the communes and only belonged to the localities concerned through their family origin and their status as land or building owners. There was a confrontation here between three main groups of players. The first group was in favour of the urbanisation of the commune. Its members generally owned land that they wished to sell as building plots. They were often older farmers with no heirs or non-farming heirs of farmers. The second group upheld the principle of regulated urbanisation, a stand often taken by dynamic farmers, wishful of protecting functional agricultural land without, however, totally blocking the development of the commune and the possibility of selling land for construction. The third group radically opposed urbanisation. It was generally composed of dynamic farmers protecting their land and the possibility of expanding their farms, as well as new residents opposed to any upheavals that could destroy the landscape and the rural atmosphere that they seemed to have acquired along with the land they had purchased to build their homes. The preparation and adoption of a land-use plan and

accession to municipal power appeared to be the highlights of these conflicts, which took place within local societies on the basis of old divides that they helped change.

The third type of conflict took place over the consequences of urbanisation in the communes. Four main problems emerged, which stirred the people. The first concerned neighbourhood conflicts triggered by nuisances that were linked, in the eyes of the farmers, to the presence of the new residents (children playing among the crops, strollers opening up barbed wire fences, etc.), or, in the eyes of the new residents, to agriculture (odour, pollution by piggeries, chemical pollution due to fertilisers, noisy tractors, sometimes even church bells, etc.). The second concerned crop thefts that increased with the rise in traffic in peri-urban rural areas and for which the newcomers were primarily held responsible. The third problem concerned municipal facilities. Indeed, the newcomers did not take long to express the desire to build urban-type facilities in their elected communes, as they found them lacking in these. They generally met with opposition from a majority of the original local residents who did not find such investments necessary. Indeed, the fourth and last problem concerned the increase in local taxes that frequently accompanied the advent of new residents. In fact, the construction of urban-type facilities was not necessary for taxes to increase substantially. The upkeep of roadways and the transport infrastructure for houses spread out over all or part of a communes territory generally sufficed to raise local taxes, which many locals found intolerable, as did the new residents, of course, although they were considered responsible for the increase.

These three kinds of conflict processes appeared in an obvious chronological order, but nevertheless developed simultaneously in the communes. Above all, they were closely interlinked, their relationship creating a feedback ring that led to the third type of conflict, linked to the consequences of urbanisation, to modify the

power relationships established during the second type of conflict, that could themselves play a role in the stands taken during negotiations related to the first type of conflict.

Moreover, the development modalities of the various conflicts and the conditions they created with regard to the intensity, rhythm and form of urbanisation changed according to the social characteristics of the concerned peri-urban rural areas. The mode of urbanisation, conflict processes and political, economic and social characteristics of the areas concerned are strongly linked. This can be seen in the clear differentiation of these areas, both at national level where there are marked differences between the peri-urban suburbs of various cities, and particularly at the level of the cities themselves, where even more marked differences emerge between various fractions of these suburbs.

A new residential model and new built-up area, the urban periphery appears to be a complex reality that differs according to the conflict process presiding over the genesis and organisation of these new interfaces between cities and rural areas.

4.4. Hierarchisation of French peri-urban areas

From the early 1980s, peri-urban areas—now conquered, recognised—found themselves engaged in a new phase. The processes already outlined in the previous section continued, but the conditions in which they occurred changed and led to a hitherto negligible phenomenon—differences between peri-urban areas transformed into a certain hierarchisation. Henceforth, the fragmentation of peri-urban suburbs became apparent and affected all the dimensions of the local social systems that constituted each of the peri-urban rural communes.

The phenomenon of hierarchisation first manifested itself in its spatial dimension. The detached houses built by the new residents

continuously increased in number and became clearly visible on the landscape of several communes. It then emerged that the built-up densities differed markedly from one commune to another, that the sizes of the plots sold were not identical, and that the dwellings themselves were of differing sizes, qualities and value. Even as far as facilities were concerned, not all communes had the same. In fact, some communes took advantage of the settlement of a new population to modernise existing facilities or create facilities that were hitherto absent, and which could never have been built until then. Town halls and schools were expanded and embellished. Activity rooms were opened to the public—or at least, frequently, a multi-purpose room in which community and private events took place. Sports facilities were built, among which the most common were tennis courts, which were also the most symbolic of the changes taking place in the communes. The focus then shifted to architectural heritage, in varying degrees. The latter was obviously important and differed in quality depending on the communes and regions concerned. While municipalities paid attention to churches almost everywhere, renovating them to differing degrees and sometimes even putting them to secular use, old village squares also benefited at times from renovation programmes, particularly when the taste for new construction faded in favour of traditional dwellings, which were often less expensive as they gave purchasers the opportunity to partly rebuild them themselves. The size and quality of building plots and dwellings, the presence of urban-type facilities and the state of old village squares therefore established a certain hierarchy in the landscapes of these peri-urban rural areas, which would further get strengthened, translating into differences in land prices, municipal taxes and the social standing of the new residents.

In fact, the hierarchisation that took place was social in nature. The more the peri-urban phenomenon developed, the greater were the links between the social standing of the new residents, the models adopted by the communes and the municipal projects

undertaken. Within these suburbs, areas differed according to the tendency of the new residents to settle in communes where families that were similar to them socially were already present. Indeed, the social status of future neighbours appeared to be an essential factor in settlement choices, based on the types of professional activities the new residents were involved in, and obviously linked to issues concerning land costs and taxes. Settlements were therefore based on the image of the communes concerned, which built up slowly, essentially through the first-hand knowledge that those interested in settling down in peri-urban rural areas acquired from friends or through weekend visits. However, the role of municipal action in this process of social hierarchisation cannot be overlooked either. In fact, the municipal authorities took recourse to urban-planning regulations, determined during the preparation of Land-Use Plans, to change the direction of urban development—its import and its features. Indeed, these were most often strategies that municipal authorities tended to use, either to promote the economic interests of the groups they represented by encouraging a specific form of urbanisation, or to enhance their own strength by favouring the settlement of people who could support the orientation such authorities sought to uphold. The role of town halls in the positioning of communes within the hierarchy also lay in the policies followed with regard to the facilities being provided. Indeed, it was the quality of these facilities that differentiated one commune from another. The presence of a luxurious tennis court funded by the town hall or that of a horse-riding centre, whose establishment had been promoted, made one commune more attractive than others in the eyes of new settlers. The rehabilitation of old village squares also emerged as an important factor that differentiated one commune from another, and that greatly depended on municipal action.

The hierarchisation was also more strictly economic in nature. In this case, it was linked to the economic activities conducted in the communes concerned. Depending on production levels, agriculture

could lend a certain dynamism and generate employment. The latter was seasonal in most cases, when it was directly associated with farming, or permanent, when it pertained to indirect employment, such as in wine cellars associated with vineyards or veterinary centres in livestock farming areas, for instance. However, it was non-agricultural activities that were a much more important factor in the hierarchisation process, especially when they differed from the traditional activities of the countryside and were associated with the services provided to the inhabitants. For a long time, new activities seemed to be exceptional, while those considered traditional tended rather to disappear along with rural public services, such as post offices. However, as the phenomenon of peri-urbanisation spread, new activities began to develop in the countryside, emerging in the last ten years as the strongest evidence of an inevitable rural renaissance. They were partly brought about by the existence of new residents. But they were also due to the way life developed for the families in these communes. In their ten or fifteen years of existence, deaths, divorces, loss of employment, change of occupation, the fact that children reach adulthood and so on were events that sometimes induced certain members from in-migrant families, along with families of local origin, to decide to develop some business there, generally because of the proximity of cities and the improvement in communications. In the course of the present decade, there has also been an increase in the number of new residents in the countryside, coming here in search of an alternative to the difficulties of city life, especially as far as employment is concerned, and trying to find a place for themselves in these rural areas that are not too far from the cities. Whatever these activities may be, they rarely generate further employment and even more rarely do they attract new people to the communes. But in the fiscal terms, the presence of some of these activities, nonetheless brings in some revenue and enables elected representatives to improve municipal facilities.

Finally, the hierarchisation of communes in peri-urban suburbs was particularly intense at a political level. This is a recent phenomenon and was based on the fundamental reform of France's administrative system with decentralisation, as well as on the recently strengthened measures promoting coordinated action in communes and going as far as establishing what are really supra-commune institutions. With the implementation of the decentralisation laws, the role of the local and regional departments of central administrative authorities, which used to exert considerable pressure on decisions taken in the field of urban planning and land development, reduced considerably. Henceforth, the exercise of power lay in the hands of politicians, who were placed at the head of new institutions that now competed with central government departments. This situation gave the representatives of local inhabitants greater opportunities to be heard. The weakness of the elected representatives of peri-urban communes, with each representing just a small number of people, therefore became a strength, because they were relatively large in number in these new forums. Specific issues of peri-urban communes could thus emerge in debates pertaining to the future of these townships. But, obviously, a certain hierarchisation took place in accordance with the place of each of these elected representatives within the local and regional VIP system resulting from the institutional reforms. Peri-urban communes did not all have the same clout during negotiations within the township system. The hierarchy was further reinforced by the establishment of new institutions for the coordinated management of urbanisation and facilities associated with urban development. These institutions, urban districts for instance, generally saw the city mayor emerging as a very important person at the regional and often national level. Nonetheless, elected representatives of peri-urban communes were also able to establish their authority thanks to the existence of these institutions, linking several communes in the peri-urban rural areas. These institutions, set up in the framework of the regions or a group of communes, often enabled

elected representatives of boroughs or small towns to enhance their powers within the regional VIP system. This new trend was further strengthened by the ability of these elected representatives to set their sights on elective posts in major national or regional forums: national assembly, senate, regional councils and department (district) councils, and hold them concurrently—at least till such time that a reform limiting the number of mandates that can be held concurrently comes into force. In fact, the arrival of new residents provoked a radical political change in a large number of peri-urban rural communes. The newcomers gladly supported parties that were less conservative than those to which the older, original resident elected representatives belonged, and often managed to take over municipal councils whenever there was a conflict associated with the urbanisation of communes and its consequences. And whatever the political situation before their arrival, the new residents also possessed greater management abilities, either because of their profession or their higher level of education. Thus, their presence revitalized the political class in these rural communes and it was mostly these new elected representatives who brought about the political integration of peri-urban communes with the city, as well as their hierarchisation.

4.5. Integration of peri-urban areas in the dynamics of French cities

In the mid-1980s, peri-urban areas, known for their specificity and engaged in a process of hierarchisation, entered a new phase. This phase was marked by their integration in the dynamic of all the cities along whose peripheries they developed and, more broadly, in the dynamic of regions in which they were located (Ferrier 2000). This integration was accompanied by a major phenomenon, which has only become more pronounced over the last few decades and which also became of critical importance in the social dynamic of the 1980s: the intensification and broadening of mobility.

Mobility was initially geographic in nature. People moved in greater numbers, faster and farther away. In Western societies, a majority of the population seemed and still seems to be on the move. All fields of social life provide occasions for travelling. Jobs require ever-greater skills and to acquire them or even maintain them, you must constantly accumulate information and establish greater contacts, both within localities and at the greater national or international scale. The emergence of new information technologies and, especially, the increasingly frequent use of the Internet does not in any way undermine the need for physical contacts, and even tends to encourage mobility. The quest for services, both commercial and related to education or health, also promotes travel. Shopping is done in increasingly diverse commercial centres that are farther away. Children's education leads to the search for excellence in establishments, which are often far away, encourages travelling and, even before the children have reached higher education levels, trips in foreign countries. Health is also another factor that sometimes takes people very far away from their homes. Finally, leisure also calls for an increase in mobility. Regular sports-related or recreational activities are usually undertaken in different and sometimes distant places, depending on the creation of specialized complexes in cities. Holidays, generally several per year, usually take the form of travels and trips, often to the other end of the world.

This trend has gained even more in importance because it is taking place at a time when the foundations of existence are themselves undermining the roots of the past. The search for jobs takes place within the national framework, and international migrations linked to jobs affects vast minorities. Employment itself is less and less durable. Part-time work, two jobs, even moonlighting—they're all on the rise. Unemployment affects a large number of persons over periods that are sometimes very long. Fluidity and difficulties of work lead to frequent travelling or even regular moves. Another pillar of the social system, the family, is no longer as stable as in

the past. Separations are numerous, leading to further moves, in turn. The reconstruction of families, which are consequently on the rise, results in an upsurge of mobility, associated with the complexity of relations created.

Thus, mobility has emerged as symbolic of the last fifteen or twenty years. Constrained by the economic and social upheavals of the times and a symbol of the probable emergence of a new social system, which is revolutionising the entire world with the formidable growth of communications, this mobility, which involves an increasing number of individuals, is both a strength and a weakness. It calls for a rethink about many of the established situations, which had long been perceived as durable. But it is also the key to a fantastic increase of knowledge and know-how, as well as to the possibility of new opportunities and new pleasures. Peri-urban populations are an integral part of this general mobility, which leads to their integration in cities that are increasingly fractured, diversified and consist of localities based on specialized functions and trades that are sometimes conflicting in nature and frequently complementary. Residents of peri-urban areas move in the deeply heterogeneous space of the city, not using it fully, but moving across all of it, selecting the localities and places that are of interest to them, more from the perspective of the specific social group to which they belong and their own personality rather than from that of the place in which they have set up residence.

Thus, this phenomenon of integration has emerged as a weakening of the principle of centrality, which earlier seemed to govern urban organisation and particularly the relationship that peri-urban spaces had established with the cities along whose peripheries they were located. The physical centre of the cities, a historical centre usually specializing in prestigious commercial activities and in certain fields of leisure activities, is now just another place among others peri-urban residents can choose from, as can the inhabitants of the entire city (Haumont and Levy 1998). New centres are emerging

in peri-urban areas themselves. More fragile and highly limited as far as their ability to draw in the crowds is concerned, these places are developing out of the former boroughs that were included in these urban peripheries. Obviously, these only played secondary functions, but they attracted clients from beyond the nearest communes, often tired of the inevitable traffic jams and the jumboization of major commercial centres.

Finally, centres also developed in rural areas, or sometimes in coastal or mountainous areas, on the far-out peripheries of certain cities. These are generally boroughs and small towns, with a rich heritage or prestigious site, which become highly frequented leisure areas because of the presence of restaurants, tearooms, or even artisans or artists' workshops. City-dwellers prefer to have them within an hour's drive. Peri-urban dwellers are often closer, thereby selecting them as a destination for outings over the weekends, from among historical centres in cities or a place in the countryside or by the seaside, if it is not too far. The integration of populations in cities thus extends beyond their highly dense spaces into the countryside, coastal areas or even mountainous regions.

On the other hand, the integration of peri-urban areas within cities also assumes a purely social dimension. Indeed, mobility, which is on the rise and affects increasingly greater strata of the population, creates a sort of distance between a large number of residents of peri-urban communes and the society and space within which they dwell. This situation is further aggravated by the development of new communication technologies, which induce their ever growing number of users to establish relations with persons further and further away, thereby reducing proximity relations. This distance is further reinforced by the rise in the heterogeneity of populations living in the communes. Unemployment affects peri-urban populations in a proportion equivalent to that of most other sections of the city. In certain peri-urban communes, it is henceforth unemployment that is the reason

for such settlement. In fact, it is much easier for certain populations of long-term unemployed to settle in communes that are still rural and not too far from cities, rather than in city centres. The rise in divorces and single-parent families has further deepened this heterogeneity, as has the upsurge in the resale of detached houses, because of separations, professional mobility or just the search for a dwelling that is larger or 'better located', closer to the historic centre, a secondary school or university, or in a peri-urban commune that is better placed in the hierarchy of peri-urban spaces. It is therefore the existence itself of the urban periphery as a specific category of urbanised space, on the fringes of cities, which is being challenged. Its definition as a meeting place between the rural and urban populations, giving rise to specific conflicts but also providing a privileged space for expression to emerging social classes, no longer suffices. Peri-urban areas are currently experiencing head-on the effects of the drastic transformation of the social system over the last two decades, which they had relatively managed to absorb so far. Today, like other types of spaces, whether urban or rural, densified to a greater or lesser degree, they essentially provide a base for populations with rather unstable and vague characteristics. Nonetheless, the spaces that have recently been formed on the periphery of cities provide a base for people coming from groups that are the driving force of Western societies, especially young retirees or middle-level executives, who came up at the same time as these spaces did and who felt the need to create new models of existence more than others did, as they did not belong to traditional structures. These models of existence, frequently showcased as being characterised by individualistic practices, emerged in peri-urban communes, both as a result of concrete situations and of listening to discourses on the issue, as if they were intended to invent new solidarities. In fact, mobility called for the search for new forms of sedentariness, which also corresponded to the quest for a new identity and the formation of a new dream world.

4.6. For the development of research on peri-urban spaces in developing countries

The French situation concerning peri-urban spaces, which reveals a constantly changing reality, proves extremely useful for a study of similar spaces in developing countries. Indeed, in these countries, peri-urban spaces also constitute an increasingly common phenomenon. They are rapidly extending to increasingly distant fringes of cities. Everywhere, they are arenas of specific social conflicts. They are also ever more distinct and hierarchised within the peripheral suburbs, everywhere. Their integration in the dynamics of the cities and regions in which they are located has intensified considerably. Nevertheless, these spaces are no less specific, still deeply anchored in the rural world and even appear to be particularly representative of the countryside at the end of the 20th century, given the differences between them. In addition, the mobility of persons, capital, goods and information, which tends to transform them, emerges as a global phenomenon that affects almost all societies and spaces.

Initial works on peri-urban dynamics in developing countries show that this phenomenon developed here much later than in France and Europe, and even later than in the United States, where the peri-urbanisation process saw the light of day soon after the end of the Second World War. However, these are always the same processes, everywhere, which seem to be building up around cities in developing countries now, thereby causing rapid and profound changes, along with extremely complex situations at first.

The first trait of complexity lies in the activities developing in these far-off fringes of cities in these countries. Agricultural activities remain and could be strengthened further, in a manner that is more pronounced than in France. This is due to the enhanced ease in directly marketing produce to urban populations, thanks to their proximity as they are now in the neighbourhood, and also

thanks to the considerable improvement of the infrastructure and means of transportation in these areas. Industrial activity is probably the next most visible phenomenon of peri-urbanisation. Given the numerous problems associated with the difficulties of urban management in these cities, sometimes because of real estate restrictions, entrepreneurs find suitable places for industrial development in peri-urban areas, using unskilled labour from among villagers and resolving the issue of the distance to the city through modern telecommunication methods and by organising private transport systems. Finally, residential activity too develops very rapidly, although the phenomenon is still only in its initial stages. This could take the form of superb houses built by well-off persons closer to the major arteries, following the example of the Western model. However, it does appear that the urbanisation processes favours the construction of house and apartment in large real estates. These are supposed to be autonomous as far as the villages in which they are built are concerned, with on-site availability of services, small shops selling basic necessities, private nurseries and elementary schools and a private common transportation system.

The second characteristic of the complexity of these peri-urban areas resides in the multiplicity of the types of mobility. Indeed, peri-urban mobility of the Western type, which is characterized by daily commuting in private cars by members of the middle classes living in peri-urban villages and going towards city centres or suburbs in which they work, is fairly limited. Movement is rather in the opposite direction and concerns unskilled workers, who are natives of peri-urban villages. In fact, villagers do not really hesitate to travel long distances in buses in certain countries and in shared taxis in others, to go work in the city, in a context where under-employment is a permanent scourge and essentially affects rural populations. Finally, industrial development in distant peripheries as well as the setting up of other activities in the villages, like educational establishments, induce members of urban middle

classes to commute daily from the city to peri-urban areas. Such travel is often done in buses or other vehicles chartered by companies or other institutions.

The third feature of the complexity of these peri-urban areas is in the extreme variety of the populations present. Rural populations are, in most cases, highly hierarchised, in both the agricultural sector, where landowners dominate agricultural activities and where others live in great poverty, as well as in the diverse production or service sectors, where the situation may vary from a rich trader established in a borough bazaar to a poor village woman selling a few vegetables in the market. Migrations of rural workers to cities disrupt existing hierarchies by bringing in much higher incomes for certain families than those they may have been able to obtain locally. Finally, the new residents, who usually belong to the middle class and come from the cities, are viewed as complete outsiders as far as the local populations are concerned. They bring in their own hierarchy and often lead to the establishment of new dwellers in the villages, to fulfil the tasks and provide the services generated by their presence.

The fourth element of complexity lies in the multiplicity of local systems of power and real estates statutes. In cities themselves, democratically elected bodies and institutions pertaining to State authorities may uphold contradictory policies concerning urban development. However, appropriate institutions have generally been set up to manage cities. But the rapidity of urban growth has brought forth situations that are difficult to manage, especially in the distant fringes of cities, where these institutions have no authority and where prevailing regulations, when they do exist, do not suffice to deal with urbanisation-related development issues.

In developing countries, an analysis of the processes in force in peri-urban areas must therefore take into account the issues raised

by these characteristics, which are essentially hypotheses drawn up to further the thinking on the dynamics and on the forms assumed by the peri-urbanisation phenomenon around major cities. However, it seems quite clear that any research pertaining to this theme must necessarily adopt a multidisciplinary approach, putting together established knowledge about urban dynamics on the one hand and the transformations taking place in the countryside on the other. In France, as in developing countries, peri-urban areas constitute ever-changing peripheries that are undoubtedly an integral part of cities and belong fully to the cities that generate them, while nonetheless remaining rural in their functioning. It is this tension that must be examined, not as a product of a conflict between cities and rural areas, but as a factor of the emergence of specific urban spaces, which retain their rural character. They must therefore be studied as such, both within the framework of the dynamic of the cities on whose periphery they are located, and in the context of the globalisation process, which provides the keys to understanding the social changes and territorial reconstructions taking place everywhere in the world.

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V

Defining 'Peri-Urban'
A review

Suresh Kumar ROHILLA

5.1. Introduction

The peripheral areas of the metropolis have been defined, conceptualised and delimited in various ways. In the late 1980's the Office of Rural and Institutional Development (ORID) used the term 'peri-urban' for the first time while explaining schemes of development assistance aid to priority areas (DFID 1999). However few other terms have been inter-changingly and extensively used before and later along with or in lieu of 'peri-urban' i.e.—*metropolitan fringe/urban fringe* (ESCAP/UN 1990), *rural urban fringe* (Nangia 1976; Ramachandran 1989), *metropolitan peripheries* (Kundu 2001) or just as a 'semi-urbanised'/'urban transition zone'.

Further different terms have been used to explain the process of urban development in both the developed and developing countries. However it is evident from available literature that all agree in defining 'peri-urban' basically as an area with a mix of urban as well as rural development processes, situated on the periphery of cities.

A review of select literature regarding conceptual background on peri-urban areas shows case studies by various experts such as McGee (1991), Robinson (1995), Marshall et al. (2001), Bentinck (2000), Stephenson (2001), Lintelo et al. (2001), Dupont (2004) and Iaquinta and Drescher (2002) and indicates that all case studies have defined the peri-urban according to their needs, scope of work and data availability. This will be illustrated in the first part of the review that will be presented chronologically.

In 1999, the Department for International Development (DFID) under the Natural Systems Programme (NRSP) sponsored a report/literature review on conceptualisation of the peri-urban conducted by University of Nottingham and University of Liverpool. The report was compiled from library searches, on-

line bibliographic searches, and from citations in publications. The review report gives an overview and insights into the available literature on 'peri-urban interface'. Thus, it is the most comprehensive documentation in this area summarising and making an assessment of available theoretical conceptualisation of the interactions between the urban and the rural—'the peri-urban'. For this reason, the last section of this review essay will summarise the main findings of this report.

5.2. Review of Selected Case Studies

Leeming and Soussan (1979) described the fringe area as such:

> The fringe of a city, as that term used here, may be defined quite easily. It is zone of land on the periphery of city which is experiencing a process of transformation from rural modes of production, social interaction and land use to characteristically urban ones, or which has experienced this process in the recent past. At one time this fringe acts as the interface between the city and the surrounding rural areas…Thus the fringe is a transitional zone into which the city is expanding. This is a different thing from the zone of urban influence, which is much more extensive … usually called its hinterland. (1979, p. 271-2)

Ramachandran (1989), while reviewing urbanisation and urban systems in India has attempted to trace the origins and definition of the phenomenon of the rural-urban fringe in India. Since post-independence in India when the urban scene has changed, the rapid growth of cities could not be accommodated within the limits of the existing cities and the character of the peripheral villages underwent significant change. He sticks to the term rural-urban fringe and also stated 'the rural-urban fringe is an area of mixed rural and urban populations and land uses, which begins at the point where agricultural land uses appear near the city and extends up to the point where villages have distinct urban land uses or

where some persons, at least, from the village community commute to the city daily for work or other purposes' (1989, p. 297).

According to Ramachandran (based on the above definition) the fringe in Delhi begins well beyond the city limits. It is an area outside the municipal limits and is an important area of new residential, industrial and commercial development, representing the outward expansion of the city. Urban corridors and suburbs fall within the rural-urban fringe zone, while satellites, green belts, new towns and counter magnets lie outside the zone of rural-urban fringe. This area lacks civic services such as water supply, sewage, drainage and garbage disposal.

McGee (1991) in his book *The Extended Metropolis-Settlement Transition in Asia* reviews the conventional definition i.e. the concept of 'urban transition' positioned within a broader paradigm of transition in the space-economy of countries, which is quite significant in the Asian context.

Figure 1: Spatial Configuration of a hypothetical Asian Country
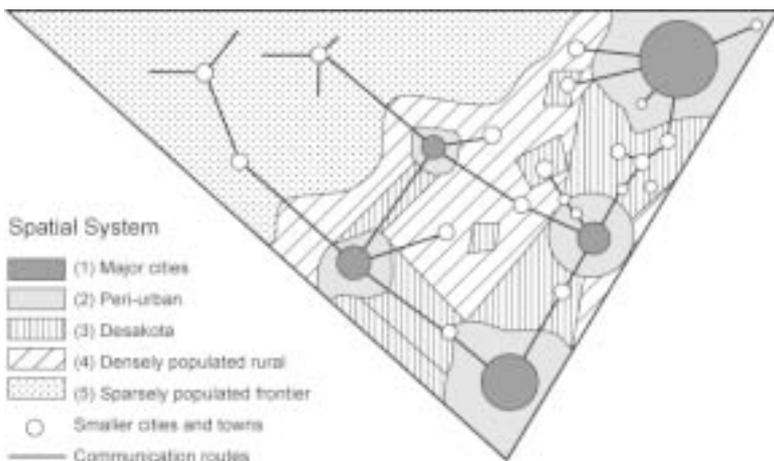
Source: McGee (1991)

McGee in his model of spatial configuration for Asian country, identifies five main regions of the spatial economy as follows:

◆ major cities of the urban hierarchy and in case of Asia dominated by one or two extremely big cities.

◆ peri-urban regions are those areas surrounding the cities within a daily commuting reach of the city core.

◆ *desakotasi* (derived from Bahasa Indonesia—*desa* for village and *kota* for town or city, *si* for process)—are regions of an intense mixture of agriculture and non agricultural activities that often stretch along corridors between large city cores, characterized by dense populations engaged in agriculture.

◆ densely populated rural regions.

◆ the sparsely populated frontier.

McGee defines Peri-urban as 'those areas surrounding the cities within a daily commuting reach of the city core. In some parts of Asia, these regions can stretch for up to thirty kilometres away from city core' (1991, p. 6-7). According to McGee there are at least three types of spatial economy transition occurring in Asia with the historical evolution of high density and mostly rice growing areas:

◆ *Desakota* Type1 – These are regions that have seen a decline in rural settlement, land-use and where agricultural population has moved to urban centres. For example, a country like South Korea and Japan with rural landscapes in which most of the economically active work is based on non-agricultural activities.

◆ *Desakota* Type 2 – These are regions where over a varying period of time with productivity gains in agriculture and industry and shifts from agricultural to non-agricultural population concentrated on core city and adjacent regions. These are also areas of rapid economic growth compared to other regions of the country.

◆ *Desakota* Type 3 – These are regions with high density but slow economic growth and marked with involuntary economic

activities. Such regions are generally located along secondary urban centres.

Later Robinson (1995) described the growth of mega-cities and emerging spatial patterns as i.e. decentralisation and dispersal in ASEAN mega urban regions. Decentralisation and dispersal is seen as one of the effective ways of relieving or reducing the extreme negative effects of these rapidly growing metropolises. *Decentralization* happens where people and/or economic activities are moved from the urban cores into the peripheral areas and along major transportation corridors radiating from urban cores with metropolitan region. *Dispersal* happens when people and activities are located outside secondary or provincial cities or other growth centres.

It is observed that most of the decentralization has occurred mainly as a result of natural market forces rather than government policy. Though in recognition of the advantages of polycentricity, most Asian mega-cities have adopted spatial planning strategies aimed at developing a decentralized form in their metropolitan regions. These are usually incorporated in their master plans.

Robinson (1995) reviewed his experiences of a number of Asian mega-cities Calcutta, Delhi, Bombay, Dhaka, Seoul, Manila, Jakarta and Bangkok. According to significant decentralization has been achieved in Asian mega cities. The urban area/built-up expanded manifold and also the bulk of decentralisation have been occurring in the form of 'ribbon development' along major transport corridors leading out of the core city.

Overseas Development Agency's (ODA) Renewable Natural Resources Research Strategy, defined the peri-urban and stated that 'the peri-urban interface is characterised by strong urban influences, easy access to markets, services and other inputs, ready supplies of labour, but relative shortages of land and risks from

pollution and urban growth' (1999, p. 5) and deliberately defined the peri-urban interface into two broad zones—first, the Zone of direct impact and second, a wider, market-related zone of influence. Bentinck (2000) focussed on the rural-urban fringe and referred to it as the ultimate 'battlefield' of the environmental and socio-economic change brought about by urbanisation. He finds that 'urban studies' and 'rural/regional studies' prevail over 'fringe' studies and rural-urban fringe is ignored as a specific area within the study of urbanisation.

In his research work on urban land-use in fringe of Delhi, he stated his area of focus based on 'The same criteria-urban land-use on the urban side of the fringe and occupation on the rural side of the fringe-are used here to formulate a working definition of rural fringe:

The rural-urban fringe extends from the contiguous built up area of the city (no rural landuse) to the area where most villages show a majority of workers engaged in non-agricultural occupations (many of whom commute)' (Bentinck 2000, pp. 17-18).

Bentinck's work focuses on urbanisation at the micro level and within a twenty-five year time period. The researched area is the Alipur Development Block (administrative division), comprising 59 villages and situated on the north of the National Capital Territory (NCT) of Delhi. Using the land-use pattern and the transformation in occupational structure of six villages were selected to study the 'stages of metropolitanisation' were studied. The study described three selected villages that are subject to the strong impact of urbanisation. In addition, the study evaluates a completely urbanised village that shows the ultimate impact urbanisation is having on the living conditions of villagers as well as migrants.

Similarly Lintelo et al. (2001) examined the nature and significance of urban and peri-urban agriculture in general and

with particular reference to Delhi. They observed that demographic and economic extension of cities, through processes such as migration and industrialization tend to be accompanied by spatial expansion, resulting in encroachments by cities upon adjacent urban areas.

In a detailed study of 'urban' as well as 'rural' Delhi using satellite images for 1998 Lintelo observed that the actual conurbation is noted to have stretched beyond the administrative boundaries in southern (Gurgaon), south eastern (Faridabad) and eastern (NOIDA and Ghaziabad) directions.

The area beyond these above mentioned towns is predominantly agricultural and within the NCT Delhi referred to as wider Delhi in north, north-west and west between the urban city centre and the towns situated on the peripheries lie important but diminishing agricultural areas. Around the city in NCT Delhi, large areas still follow crop production, fallow land cycle and plantation or grassland. In fact 17 per cent consists of built up areas clearly indicating that agriculture was still a major land-use in and around Delhi.

The research study focuses on 30 select revenue villages concentrated in three clusters in south-western, north-western and north directions in the fringe areas of Delhi. The authors have taken six villages for detailed case study of occupational pattern. It has been observed that urban and peri-urban agriculture is a dominant and dynamic land-use in Delhi although geographic locations of the fringe may shift over time with waves of urbanization. According to their need the study on peri-urban agriculture concentrates on area/villages between Delhi and the towns situated on its peripheries 'areas distant from city and rural in character will subsequently start falling within the cities reach or 'band of influence'.

Dupont (2004) has analysed the developments in urban forms and population redistribution in the Delhi Metropolitan Area as part of the development of the mega-city of Delhi in terms of:

i) Focusing on the processes of peri-urbanisation and rurbanisation, and

ii) Population redistribution within the metropolitan area.

The emphasis is on the major role migration has played in the demographic evolution of the capital city. The urban development of Delhi has been seen to be shaped by planned as well as informal urbanisation in the periphery thereby resulting in the interweaving of urbanised zones, as well as to a blurring of the distinction between rural and urban population categories.

Dupont stated in the conclusion that 'the urban development in the metropolitan area of Delhi results from the combined effects of spontaneous dynamics of new migrants and city dwellers, market forces and attempts of town planning at the level of National Capital Region, the distinction made between three planning zones (the territory of Delhi, the first urban ring—i.e. the peripheral towns of the Metropolitan Area,—and the zone beyond the Metropolitan), runs the risk of becoming an obsolete theoretical distinction, overtaken by the rate at which the actual dynamics at work is evolving. The ring towns have thus become an integral part of gigantic conurbation extending from the capital outwards. In the framework of growing globalisation of economies and the growing influence of the liberalisation and disengagement policies of the states, the control of the development of megalopolis appears more and more problematic in the face of contradictory interests and forces' (2004, pp. 21-4).

However, Iaquinta and Drescher (2001) attempted to introduce new typologies of peri-urban and applied the typology to issues of natural resources planning and management. Their work is based on seven premises and different from others:

> - *Rural, Peri-urban and Urban form a linked system (R/PU/U)— an uneven or lumpy multidimensional continuum.*
> - *In terms of migration and urbanization peri-urban environments play a mediating role between rural and urban.*
> - *Peri-urban environments are places of social compression and dynamic social change.*
> - *The potential for food production and its relationship to food security must be evaluated across the entire R/PU/U system.*
> - *Understanding the nature and operation of the system requires a focus on the underlying dynamic processes rather than the 'fixed states'.*
> - *Effective policy intervention rests on interdisciplinary understanding, which incorporates physical, biological and socio cultural paradigms.*
> - *The 'social footprints' of urbanisation manifest differently in the urban, peri-urban and rural context but is understandable when addressed in view of a linked system (R/PU/U).*

Source: Iaquinta and Drescher (2001)

They argued that it is not an essential element of the definition that peri-urban has to have 'proximity to the city'. It is just incidental to an elemental understanding of peri-urban. Concentration on simple geographic location as the basis for defining peri-urban misses the point of a clear understanding of rural-urban spectrum as dynamic, interactive and transformative. Thus, peri-urban is clearly more than just an urban fringe.

According to Iaquinta and Drescher (2001), *urbanisation* is a process of concentration and intensification of human life and activity. It is an uneven process as a result of three fundamental

population processes—fertility, mortality, and migration that takes place in a physical environment. Such processes occur due to individual and household decisions undertaken in a socio-cultural, economic, political and environmental context.

The typology of peri-urban by Iaquinta and Drescher is composed of five ideal types—Village Peri-urban, Diffuse Peri-urban, Chain Peri-urban, In-place Peri-urban, Absorbed Peri-urban and the five elements embedded within the broader rural-urban dynamic. The typology derives from underlying socio-demographic processes, especially migration in which the transformative linkages are organized along the dimensions of migration and time. The typology remains connected in the form of organic two-way exchange networks, which can be summarized as follows:

A summary of various typologies (Iaquinta and Drescher 2001):
- ◆ Village Peri-urban: Rural villages with an urban consciousness, these areas are geographically non-proximate to an urban area. Its designation as peri-urban rests on its social psychological transformation rather than geography and size.
- ◆ Diffuse Peri-urban: A separate category of peri-urban comprising areas proximate to the city and which are settled depending on migration. The immigrants come from a variety of geographic source points.
- ◆ Chain Peri-Urban: Geographically close to the city; this is an urban fringe that undergoes settlement vis-à-vis a process of chain migration. Areas identified as 'squatter settlements' around the cities of developing countries mostly relate to this type.
- ◆ In-Place Peri-urban: Geographically close to the city and result from in-place (*in situ*) urbanization, natural increase and some migration. These are areas in the process of being wholly absorbed by actual expansion of the urban fringe or simple reclassification.
- ◆ Absorbed Peri-urban: These are areas proximate to or within the city that have been absorbed for a considerable period of

time. These areas derive from either in-place peri-urban areas or from chain peri-urban areas.

Based on the above typology, Iaquinta and Drescher have argued that rural migrants move first to villages or small towns then successively to more urban environments: the peri-urban environment is dynamic. There are two kinds of links that persist across *space* in face of geographic displacement and links that persist across *time.* Together, Diffuse Peri-urban and Chain Peri-urban most closely approximate the 'urban fringe' definition used by geographers. In-place peri-urban has some similarities of the fringe but would more closely fit into *Desakota* type. Village Peri-urban on the other hand is completely unrelated to the urban fringe concept.

Stephenson (2001) examines various problems of the developing countries with reference to urban water management and peri-urban structure. He observed 'peri-urban areas' to be different from both the high income suburban sprawl which is distinct from the rapidly growing unstructured settlements springing up around developing areas such as Rio de Janeiro/Sao Palo, Buenos Aires (villa's miseries) Kampung in Jakarta, squatter settlements around Johannesburg, the urban sprawl in India among other such settlements across the South.

Kumar (2002) looks at the process of metropolisation in urban agglomeration across India and defines peri-urban in regional context as outgrowths. He observed that the question of peri-urban development cannot be addressed outside the framework of balanced development of both rural and urban areas. He stated 'urban is not a homogenous category and bias in the differential scale needs to be acknowledged' (2002, p. 13).

Brook et al. (2003) working under a DFID sponsored project working in the Hubli- Dharwad region (India) have emphasised

that the peri-urban interface is not primarily a location, although it has a place where it exists and it has a process. This includes people, flows and interactions—flows of people, goods, finance, and pollution, among other similar issues that are part of the process. According to them 'there is no single satisfactory definition of the peri-urban interface, and moreover, different definitions will probably apply in different circumstances, and may even change in the same location over time; for example, as a medium-size city becomes large one' (2003, p. 2). Thus, the *definition will differ* for different situations.

Rohilla (2004) observes urban growth as an evolutionary process. His research focus is on groundwater and urban development in the process of metropolisation of Delhi over a period of time. He defines the 'peri-urban' areas of Delhi in his case as 'an area/ villages in the evolutionary process of urban development, including villages engulfed in the process of urbanisation (referred as 'urban villages') already part of the city and the suburban areas/ villages including outgrowths on the fringe of an existing city, which are in the transitional phase of urban development (planned/ unplanned) which in a period of one or two decades will become part of the city limits'.

The DFID 1999 Report outlined peri-urban area as an interface, a transitory zone of mixed rural and urban economic, social, cultural and natural resource uses at the periphery of cities in developing nations. The principle findings of the report are as follows:
◆ The peri-urban may be best examined in terms of the development processes.
◆ No single theory or model adequately explains activities in the rural urban fringes.
◆ The peri-urban areas locate new populations, which in turn is the cause of natural resource depletion as well as pollution.
◆ Most peri-urban developments have biophysical impacts extending beyond their immediate boundaries.

According to the DFID report, peri-urban development can be considered as part of this wider urbanisation process. With the growth of cities in developing countries, the peri-urban area moves in waves. The report concludes that 'definitions of what constitutes 'peri-urban' are thin and inconsistent and literature directly relating to peri-urban areas is not substantial' (1999, p. 2).

Further it stated that statistics related to urbanisation is varied and definition of 'urban' settlement and quality of data differs country to country which makes international comparisons difficult and local factors more important than generalized assumptions characterizing the nature of peri-urban. It summarises the review and suggests that peri-urban interface should be considered as a region of change and not a distinct boundary. The emphasis being on the process of urbanisation than mere form of urban growth.

5.3. Conclusion

The urban specialists have found it as an area having predominantly urban characteristics or an area with both rural and urban characteristics while rural specialists regard it as having essentially rural characteristics. On the other hand environmentalists look at the area suffering from pollution caused by nearby urban core while natural resource managers see the zone as problematic area where buildings and roads encroach on productive agricultural land.

The literature review revealed that all agree on a common point, that 'peri urban' is an area outside existing urban agglomeration where large changes are taking place over space and time. For a sustainable development of the city the area needs to be identified and data need to be updated (DFID 1999).

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VI

India's urban fringe[1]

Hans SHENCK

6.1. Introduction

Growing cities expand geographically; the rapidly growing Asian metropolises have been expanding rapidly. Expansion implies that urban characteristics are introduced into peripheral or peri-urban areas or urban fringes. Hence, there are significant changes in the socio-economic and socio-spatial characteristics in the metropolitan fringe or the 'zone of spatial contact between town and country' (Mortimore 1975).

Primarily market forces drive fringe developments in most of the countries in the less developed world. Given the strong role that is played by national and international markets at the present time, it is understandable that the fringe areas are highly dynamic. It is also important to note that the processes of change in fringe areas cannot be seen as autonomous. Dupont (2000, p. 150) speaks of 'the integration of urban and rural', when analysing Delhi's 'Rurbans'. Fringes are primarily counterparts, reflecting the changes occurring in the urban core. A stagnant core generally implies a stagnant fringe while a growing core is associated with a dynamic fringe.

Fringes tend increasingly to become central in metropolitan developments, although policymakers have neglected them. This 'dark' zone between urban centres and the surrounding countryside seems more and more to hold the key to future urban growth. This point has been well argued by McGee and others who drew attention to the problems and possibilities in the *desakota* zone around Jakarta and other Asian cities. In many ways fringes are both *desa* (village) and *kota* (town), though perhaps in an unequal partnership. Fringes tend to be places 'where things happen' but could also be the places where nothing seems to happen so that planners can almost 'forget' their existence. Fringe contexts are 'different' compared to both 'traditional' urban and rural contexts, and, hence, cannot be understood through the traditional dichotomy between city and countryside.

The composition of this contribution is as follows:

In the following section a few conceptual remarks on the nature of urban fringes in (South-East) Asia are made. Attention will, in particular be given to the concept of stable and sustainable urban fringes, versus the concept of dynamic fringes. From Section 6.3 onwards the focus is on India's urban fringes. In this section changes in land-use and in the socio-economic characteristics in the intermediate zones between its major cities and surrounding rural areas are introduced. Subsequent changes in the composition of the population in fringes stand central in Section 6.4. Both rural poor and urban middle and upper classes move into fringe areas of India's major cities. Moreover, an increasing number of urban squatters move involuntarily as they are evicted from these cities. In Section 6.5, fringe developments and living conditions in fringe areas are related to the roles of public authorities. Fringe developments are largely unplanned and contrast with the earlier planned attempts to arrest the growth of the large cities in India. The role of 'the state' in urban fringes is limited if compared to that in inner cities, and moreover, it tends to decline as a result of the withdrawal of the state from infrastructural and social activities. In Section 6.6 specific attention is given to issues of land tenure. A brief comparison is made between insecurity of land tenure in inner-city squatter settlements and that in colonies in fringe areas where urban poor have been re-settled. By way of conclusion in Section 6.7, an emerging picture of India's urban fringes is drawn, characterized by increasing spatial segregation, physical and infrastructural degeneration and socio-economic exclusion.

6.2. Sustainable or dynamic fringes: conceptual notes with reference to the Asian context

McGee (1991), while analysing Asian metropolitan growth, has pointed out the existence of a sustainable intermediate zone between town and countryside, the *desakota*. He has presented *desakota* as a typical Asian expression of urbanization processes,

instead of the classical dichotomy between town and countryside. According to him (1991, pp. 16-7), there are six distinguishing features of *desakota*: (i) the existence of large population of mainly rice growing small holders; (ii) increasing non agricultural activities; (iii) increased fluidity and mobility of *desakota* residents, both toward the core and within the *desakota*; (iv) an intense mixture of agricultural and non-agricultural land uses; (v) increased female participation in non-agricultural labour; and (vi) the 'invisibility' of a *desakota* from the point of view of public authorities.

Disputing the thesis of a sharp rural urban dichotomy, Forbes (1996, p. 96) too has argued that, 'The process of desakotasi, or the dynamics of formation of the desakota region, is perhaps more important than the resulting pattern itself. During this process, the countryside is urbanized, without the hinterland population necessarily moving into the city. Rural economics and lifestyles become submerged under the impact of the expansion of urban economic activities and cultures, but without disappearing altogether. These regions become hybrids of urban and rural cultures, and hence new forms of post-colonial landscapes.' He somehow agrees with McGee that the *desakota* exists as a sustainable geographical entity, at least for a long time.

Empirical studies (Hugo 1997; Connell 1999; Kelly 1999) however, suggest that the expanding metropolises push their fringes back, while new fringe areas grow subsequently on their outer borders. This implies that the fringe is not a static unit and is likely to experience spatial shifts even in the short run. Kelly (1999) has questioned the sustainability of a given fringe, in which agriculture remains an important economic activity and a form of land use, as suggested by McGee. While discussing the *desakota* of Manila, Kelly acknowledges the dynamic socio-economic relationship between agriculture and non-agriculture and its corresponding land use patterns, but concludes that this

dynamism leads to the squeezing out of agriculture. Connell (1999, p. 96) concludes from a central urban viewpoint that Metro-Manila has become Mega-Manila.

One can, therefore, argue that the concept of *desakota*, like that of a fringe is a sustainable concept, but that any given *desakota* or fringe is likely to be eaten up by a growing and thus expanding city, unless it is in some way 'protected' against the 'logics' of uncontrolled urbanization. However, the sustainability of *desakota* as an abstract concept is ensured by the emergence of a new fringe when the old one is gobbled by the city. Thus, around the metropolitan cities of Asia fringes reappear like a Phoenix. Beyond every swallowed fringe, a new and wider one manifests itself beyond the limits of the city. The suggestion of the concept of a two-fold dynamism in a 'rolling' fringe appears relevant in this context.

The available evidence for Indian cities suggests the existence of dynamic fringes as well. The following section outlines some of the changes that occur in fringes of Indian cities.

6.3. The Indian urban fringe: an overview of main changes

Fringes are typified by processes of rapid change, both in terms of socio-economic as well as physical characteristics, as noted above. Four significant interrelated changes have been observed (Ramachandran 1991, p. 310-17) in a sequential order as follows. In the first place, socio-economic changes can be observed. Erstwhile predominant subsistence agricultural production gets replaced by market oriented primary production: vegetables, flowers or poultry, take the place of rice or wheat (e.g. Rao 1979; Kulkarni 1981). Subsequently, non-agricultural economic activities belonging to industrial or service sectors appear on the scene. Polluting industrial units and space demanding plants—such as the growing automobile industry—are among the industries settling in India's urban fringes, while, more recently the Information &

Communication Technologies sector has become a prestigious newcomer. In the second place, the socio-economic changes go hand-in-hand with changes in land use. This change has also been observed in several studies (Deshpande et al. 1980; Kulkarni 1981; Gupta 1985; Sengupta 1988). Residential and industrial areas, roads, etc. impinge on agricultural usages of land[2]. In the third place, an 'urban way of life' penetrates into the countryside. Sharma (1985, pp. 71-2) puts this change in a colourful way with regard to the fringes of a town in the Punjab: '… the villagers around Jallandhar at a distance of 15-20 miles started aping the urban standards of living which they adopted in the villages itself …'. In a more neutral way, one can point at changing behaviour patterns with regard to consumption of durable goods, leisure behaviour, etc. In the fourth stage, new residents start entering the fringe. This stage represents some little noticed and contrasting processes, which will be discussed in some more detail.

Taking a macro overview, three population categories come to reside in the fringe: urban well-to-do, urban poor and rural poor. The urban well-to-do and the rural poor move often to the urban fringes in violation of land use regulations and Master Plans, and settle thus on unauthorised residential areas. The movements of the urban poor towards the fringes are, on the contrary, often planned: there exists a strong association with forced demolitions of inner-city squatter settlements and re-settlement in the periphery. In the next section these population movements stand central.

6.4. Population movements
The urban better-off
From the 1960s onwards, urban well-to-do and urban middle classes have kept moving to more spacious living environments at selected

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[2] Ramachandran (1991) makes the distinction between a 'rural fringe' and an 'urban fringe'. In the latter the physical urban appearances can be seen, though urban amenities are absent, whereas in the rural fringe just the socio-economic changes within the primary production occur.

places at the urban border, or beyond the city limit. They may buy and develop a plot on an individual basis, buy an informally sub-divided agricultural plot, or a complete house built by a public agency or a private developer. These processes can be observed in many Indian and other Asian cities. For several cities these processes have been described: for Delhi already for the 1960s by Bose (1974) and more recently by Bentinck (2000), Dupont (2000) and Soni (2000), and for Bangalore by Schenk and Dewit (2001). Many of the invasions of these urban better off have taken place contrary to Master Plan regulations, in the form of unauthorized housing colonies. Dupont (2004) estimates that in 1995, 1300 unauthorized colonies existed in Delhi's fringe with a population of three millions. The Bangalore Development Authority, in charge of development and land use controls in a ring around the central city, has built 5,000 houses in planned middle and upper class colonies between 1976 and 1991. During the same period between 80,000 and 150,000 houses and huts have been 'illegally' constructed in this ring, thus accommodating between 450,000 and 800,000 inhabitants, many of them belonging to middle and upper classes (Schenk & Dewit, 2001, 118-19). Even though residential colonies of the urban better off in the fringes are 'unauthorized' and could hence be demolished by development authorities charged with the proper implementation of land use plans, bulldozing rarely happens. Bose (1974) describes for Delhi and Schenk and Dewit (2001) for Bangalore that political patronage and expensive court cases normally turn out in authorization of these colonies.

The urban poor

The urban poor have invaded into the fringe areas, sometimes voluntarily but more and more in a forced manner: through evictions, as their inner-city squatter settlements are demolished, or as a result of a squeezing out by forces of the land and housing markets. Evicted squatters may be assigned (more or less) serviced sites provided by local authorities for which they have to pay. They may also be dumped across the municipal border without any such

provision, as is occasionally the case in cities such as Delhi and Bangalore (Schenk & Dewit 2001, p. 125). For Delhi the brutal demolitions and re-settlements of inner-city squatter settlements during the Emergency (1975-1977) resulted in the eviction of 150,000 households, while Joshi (n.d.) notes that not less than 900,000 squatters in Delhi have been forcefully removed around the turn of the century, while another 400,000 are still on the 'waiting list'. Many of these evictions serve the purpose of urban modernization, such as the construction of urban highways and fly-over. Some others are the victims of the global economy that India has embraced. Local authorities in cities such as Bangalore or Delhi found it necessary to 'clean' their cities of the ugly appearances of poverty in the eyes of the expected foreign investors. The political, social and economic elites of Delhi, Mumbai, and even Bangalore, Chennai and Hyderabad dreamt of becoming global cities. As Nigam (2001, p. 40) put it: 'Delhi in the 1990s may be described as a postcolonial city with a first world desire.' The market may push squatters to the fringe as well. In some cities inner-city squatter settlements have been improved, such as in Chennai (formerly Madras). Improved settlements offer improved dwellings and infrastructure and formal security of tenure, but against a price. Many poor squatters found this price too high, and they had to move out. Others found it difficult to resist middle class households who were attracted by the improvements and bought the squatters out. Quite some erstwhile squatter settlements have hence turned into a lower middle class neighbourhood, while erstwhile inner-city squatters may '… move from one slum to the other, always further away from the city centre.' (Wit 1989, p. 50). Auclair (1998) concludes that Chennai has become for sale, and this applies also to squatter settlements.

Planned voluntary movements to the fringes have been designed in the form of so-called site-and-services packages. These packages, designed to serve the urban poor, do in practice not serve this

category due to relatively high costs and the site-and-services neighbourhoods have developed into (lower) middle class areas. The urban poor who 'voluntarily' settle in the urban fringes may encroach illegally waste land in the peripheral areas where policing is likely to be less and local authorities less vigilant. However, their tenure status is weak and depends on political patronage and bribery to relevant officials. Yet, as was found in Bangalore, they do come, often anticipating evictions, or simply as inner-city squatter settlements are 'full'. Increasingly, they move to the periphery since some employment opportunities can be found there as well. Especially polluting industries tend to move away from inner cities and away from pollution controls. Unskilled labour and often 'unclean' labour (e.g. related to tanneries) may follow industrial re-locations (for Delhi, see Sharan 2004). The match between cheap labour and available work is limited, however, as shall be seen in Section 7.

The rural poor
The 'traditional' rural-urban migration streams of the poor, mostly the movement of poor landless agricultural labourers from India's countryside towards its (major) cities has resulted in inner-city settlements of squatters. In many Indian cities this process becomes now something of the past. Two major reasons can be given. First, the inner-city squatter settlements are 'full' as well as the inner-city wasteland. Second, the inner-city settlements offer less and less security of tenure. Bulldozing of huts and relocation in the urban periphery of hut dwellers make rural migrants realize that an inner-city living space is hard to get, and the fringe seems the next best option. In squatter settlements in Bangalore's fringe, a mix of evicted poor from the inner city and migrants from the countryside was found (Schenk and Dewit, 2001), while Bentinck observes a ' … massive migration to the villages around Delhi.' (2000, p. 103) which are in the process of fringe development. Both in the fringe villages around Delhi studied by Bentinck and in planned re-settlement colonies in Delhi's fringe and elsewhere,

new squatter settlements tend to emerge in the leftover pockets of land (Ali, 1990).

It is difficult to structure the several incoming flows of migrants into the fringe in terms of time (Browder, Bohland and Scarpaci, 1995). In some cities, the better off were the first to move outwards, while the rural poor still went to the inner city. Bangalore forms an example of this sequence (Rao and Tewari, 1979). In Delhi the voluntary outward movement of the upper and middle classes was closely followed by the forced movements of evicted slum dwellers. Anyway, the rural poor seem the most recent to migrate to the fringes. In terms of location, population movements to the fringe seem more structured, as will be seen in Section 7. In this section the observed trends in this paper are brought together in an emerging socio-spatial picture of India's new metropolitan cities including their fringes. First, two dimensions of fringe development in relation to public policies are discussed in the Sections 5 and 6.

6.5. Fringes and the state

The relations between fringe development and state authority are manifold. In this section (i) the role of planned urban development versus unplanned fringe growth; (ii) the decline of the role of the state in (fringe) developments; and (iii) the functioning of public activities in fringe areas versus those in central cities, are briefly discussed.

Planned urban development and the fringe
In some Asian countries definite policies have been developed to curtail the growth of its major metropolitan cities in favour of the growth of intermediate cities, planned new cities, urban growth poles, etc. at relatively far distances of the major cities. India is a case in point. From the late 1960s onwards, concern was voiced against the strong growth of its major cities, and policies in favour of a more 'balanced' urban development and 'regional planning'

concepts have been formulated (see e.g. Misra 1969), while incentives were given by government authorities to intermediate and small urban places in order to grow, attract inustrial and services employment and offer livelihood alternatives for peasants driven from the countryside. Barring a few exceptions, these policies have never been very successful.

Related attempts have been the promotion of satellite towns and other urban places within the metropolitan realm. For Jakarta, the Jabotabek region surrounding Indonesia's capital, Firman (1997, p. 1043) concludes that the population growth of these satellite towns has exceeded that of the core city, while industrial activities have been shifted from the core to the satellites. However, market forces were more instrumental in developing Jabotabek than government interventions. Analysing the developments in Metro Manila (Philippines), an area of satellite towns surrounding the central metropolitan area, Connell (1999, p. 421) concludes that: 'The spatial pattern of post-war metropolitan growth has reflected much more a modernity of private wealth and mobile labour than a modernity of rational state planning'. It seems anyway that planned secondary cities and growth centres have 'lost' from the forces that promote fringe formation.

Many cities have attempted to control the usages of land surrounding their built up areas. In India urban development authorities have been founded to draft Master Plans for a rather long term urban development through control of land uses, and safeguard their implementation. These authorities have often drawn up land use plans for residential and other functions in the urban fringes. The Bangalore Development Authority (BDA), in charge of all fringe developments around Bangalore in South India, forms an example. The BDA was founded in 1976 and has since drawn a land use plan (Master Plan) for, what has been named, the 'inner ring' around the municipal boundaries, for residential and other functions. The 'outer ring' was to become a green belt. In the outer

ring some 20 per cent of the area has become illegally affected with buildings. This actually means that the BDA is in no way capable of exercising control over urban development in the Bangalore fringe. Controls over fringe developments are weak against the poor as well as against the better off though for different reasons (see also above).

The decline of the role of the state

Several states in South, South-East and East Asia have a rather long tradition of state involvement in urban development. This involvement was laid down in development plans and could cover many spheres of life. Other states were more diffuse in their role in developing their country. However, basic amenities, in terms of physical infrastructure, and in terms of social infrastructure (education, medical care) have been put on paper by national, regional and local governments. It is known that in reality some states could not live up to these aspirations (see Kundu, 1993 for urban India), while in some countries, such as (Northern) Vietnam and China an impressive record has been built up with regard to these amenities. With the introduction of new economic policies, however, such as in China in the late 1970s, in Vietnam in the mid 1980s and in India in the early 1990s, the state is withdrawing from its traditional spheres of involvement, and encourages market forces to take over. An example is formed by the provision of sanitation in Indian cities.

Sanitation was the core business of urban government in pre-colonial and colonial India and the most important task of India's modern local government (see, for instance, Ahmed 1980; Harrison 1980). After India's independence, sanitation, that is, cleaning latrines, sweeping streets and gutters, among other urban chores has continued to be a major urban public activity. Regarding sanitation, the houses of the better off were traditionally provided with latrines, which were and are gradually replaced by flush toilets and sewerages. In poor areas public latrines have been built. Lack

of maintenance and somewhat regular cleaning, and sometimes the non-availability of such latrines have led to 'help your selves' solutions by the urban poor (urban squatters) in the form of open-field latrines. The failure of the 'state' to provide for adequate sanitation and the environmental and other problems with regard to the open-field 'latrines' has prompted a NGO (Sulabh) to develop a system of pay-toilets, to be maintained privately out of the returns of the visits. Sanitation became privatised, and Sulabh is replacing the sanitation departments. 'Sulabh' toilets are now available in many squatter settlements and re-settlement colonies in Delhi and other cities. They are however not used very much. Rough calculations learn that an average household may spend up to 15 per cent of its daily earnings to visits to the Sulabh latrines, which, obviously, do not take place. Hence the fields are still frequented by men and as much as possible by women. The privatisation of sanitation is apparently a failure. It replaces a dirty but free facility by a clean one that is, however, beyond the financial means of the urban poor.

The decline of the role of the 'state' in providing basic services is manifest, also in sectors such as water supply (Zérah 2000) and electricity supply. In the next paragraph, it will be seen whether the inner-city poor (squatters) are more affected than those urban poor who (re-)settled by force of voluntarily in the urban fringe.

Fringes versus central cities
In several countries the level of amenities, and, more broadly, the level of interference by the state, varies according to location. Urban citizens have better access to amenities than non-urban ones. This distinction becomes important when outlining the characteristics of urban fringes. For Delhi there have been several occasions of administrative realignments, resulting in fringe areas being drawn into the boundary of the municipal government. Generally speaking, such areas subsequently get better served with 'urban' amenities, however obsolete they may be in design and

manufacture and hence inefficient in function. Fringe inhabitants are hence eager to become urbanites. One might assume that planned resettlement colonies in India's urban fringes that have been developed to house the evicted urban poor are better served with basic amenities such as water supply and sewerage, than (illegal) squatter settlements in the inner cities. This assumption is not true. First, many of India's urban poor have been dumped in the fringe, without any provision to such amenities. In other resettlement colonies infrastructure is available, though sometimes privatised (i.e. sanitation, as seen above). Inner-city squatter settlements are, however, served with (some) basic amenities, as they serve as favourite vote banks for local politicians who promise some improvements in return for votes. For Delhi it was found that there are no significant differences with regard to the access to basic amenities between inner-city squatters and peripheral resettlers (Kundu, Schenk and Das 2002). The urban poor who had to migrate to the fringe of Delhi did not gain in terms of basic sanitary and environmental provisions. The question whether their tenure status has improved will be discussed in the next section.

6.6. Issues of Land Tenure

The inadequacy of investment in housing and basic amenities in urban areas is a major concern in development policies for countries functioning both within socialist as well as capitalist frameworks. Access to basic amenities as also other socio-economic conditions of the people in cities tends to get determined by their location and by the nature of the ownership of land. It is often pointed out that households and communities do not take the initiative to improve their microenvironment by making adequate investments, as they do not have a title to the land they live on. This is more the case in the peripheries than in the central city.

India's inner-city squatters are not secure of their tenure, as they live 'illegally' on encroached land. Their security depends on the

vagaries of political powers and political patronage. Many squatter settlements in Delhi 'survive' on this fragile basis, but many more could not. In Chennai, legalization of illegal settlements has taken place on a large scale, offering formal security (that may be weak in terms of market forces, as seen above), but in Bangalore illegal squatters have systematically been evicted since the 1980s.

Resettlers in the urban fringes know security of tenure when their resettlement colonies fit in some sort of land use plan provision. Even then it may be for a couple of years only and hence a source of uncertainty, as was found in a resettlement colony in the fringes of Delhi (Nelissen and Schenk 2002). Anyway, security has become formalized. It goes hand-in-glove with heavy compulsory expenditures for the occupation of the newly assigned plots and for constructing houses made of durable materials. Loans—often essential to meet the requirements of the resettlement rules—are offered but they are often beyond the capacity of the resettlers. The emerging regime of tough handling 'according to the rules' in Delhi results in evictions, once more, of the poorest in the resettlement colonies (Nelissen and Schenk 2002).

6.7. India's emerging urban fringe: towards segregation, degeneration and exclusion?

India's urban poor are increasingly forced to move to the fringes of its cities, where they may meet the poor from the countryside who—in their attempts to make a living—are not able anymore to settle in the central parts of these cities. They may meet their better off fellow citizens, but this is not likely. The dynamic periphery of Delhi shows that rich and poor settlers are clearly spatially separated. The middle and upper classes in this city move to the planned or unauthorised settlements to the south and south-west of the urban centre, while the planned resettlement colonies are situated in an arc from the north-west to the north-east and south-east, far away from the elite. The resettled urban poor have

moreover lost access—again in spatial terms—to their traditional places of work: the numerous shops and workshops and households of the middle and upper classes where they normally used to be employed, often under 'informal' conditions. Increased segregation between poor and better off citizens, and between working and living is the result.

One may argue that segregation according to social and economic criteria has been a traditional pattern of India's urban structure. Ancient urban planning 'manuals' such as the Shilpa Shastra's and the Vastu Vidya, combined with Hindu concepts of the ideal neighbourhood has led to a pattern of homogeneous—often caste based—neighbourhoods, which are clearly separated from their neighbours. The urban sociologist Mukerjee (1968, p. 140) describes Agra as follows: 'The town of Agra in Northern India is, for instance, divided in so many as 212 muhallas, the names of which are derived either from the caste and occupation of the inhabitants, or from some well-known building or from a prominent resident of former days.' Fine-grained segregation has played an important role in the social ecology of Indian towns and cities (e.g. Louiset-Vaguet 2000). For Madras and Calcutta a fine-grained distribution of small pockets of urban squatters was found in the residential districts of these cities, including the most prestigious ones. They were close by the streets of the well-to-do, but clearly separated from the latter (Bruijne and Schenk 1992). The squatters needed proximity to middle and upper class households, which they often 'served', while the elite found 'invisible proximity' to the poor convenient.

The emerging forms of segregation in the processes of fringe formation differ from the traditional ones. In the first place, a geography of scale operates. Segregation used to be confined to distances that could be covered by walking or cycling. Nowadays, segregation in Delhi may mean distances of dozens of kilometres. These distances cannot be covered by walking or cycling (apart

from the fact that a bicycle is a luxury commodity for many urban poor). Public transport, however, is expensive and time consuming. For far away resettlement colonies this may mean a two to three hours journey, and tickets that cost up to half a day's earnings.

In the second place, spatial long-distance segregation leads to economic and social segregation from the larger urban society and to even marginalization for the re-settled urban poor. Many re-settled erstwhile squatters in Delhi and other rapidly expanding Indian cities have given up their inner-city jobs for reasons of inaccessibility, or have decided to stay overnight at their workshops and come home once a week only. Women have been victimised even more. Their 'traditional' jobs in the households of the middle and upper classes proved too far away, as their mobility is restricted for cultural and practical reasons. Moreover, exponents of modernization, such as the washing machine and the super market threaten the jobs of household servants and washermen: the lady of the house only is entitled to handle the buttons of the modern world and do the fashionable self-service shopping. Essential household income of the urban and peri-urban poor thus disappears, though costs of living increase. Instalments for re-settlement plot loans, for housing mortgage loans, etc. have to be paid, while living in an inner-city squatter settlement used to be 'free'.

The resulting pattern of segregation in India's major metropolitan cities bears the tendencies of exclusion and of degeneration of the poor in the fringes. The urban poor disappear from the inner city, either by political will and a visible police force, or by the 'invisible' forces of the market. Employment in the urban fringes does exist but it is rarely available for their 'unskilled' hands. Most of the industrial and service-oriented new jobs in the periphery are reserved for educated and/or skilled workers. Alternatives for making a living are meagre. Moreover, the rim of urban (and rural) poor around the central cities testifies for a falling apart of the traditional urban society. The urban poor were needed in the past

in the cities, however they have been exploited. They seem to be less needed now and can be dumped in the no-man's land between the central city and the countryside. Hence, excluded peripheral poor tend to replace exploited urban poor. Most alarming is probably that the inner city better off do not seem to care much. 'Nimby'[3] feelings of relief that dirt and poverty are removed from the urban scene seem to prevail in Delhi, while feelings of a wider civic sense, those of 'belonging to a larger whole' seem absent, due to predominant allegiances to kinship, caste, religious and ethnic groups only.

India's urban fringes tend to develop into more than just a location of urban expansion and the gradual replacement by urban activities and urban land uses of traditional ones in the surrounding countryside. Some intellectuals (Kundu, in Nelissen and Schenk 2002; Verma 2002) warn for a political time bomb hidden under the emerging dichotomy of new urban order of a relatively rich and clean central city and a predominantly degenerated and excluded urban periphery. The question remains which political and social forces emerge to counter this threat.

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[3] 'Not in my back yard'.

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Peri-urban dynamics:
population, habitat and environment on the peripheries of large Indian metropolises
A review of concepts and general issues

SUMMARY

Specific forms of urbanisation are evolving on the peripheries of the large developing metropolises. These processes of peri-urbanisation result in the formation of "mixed spaces", midway between urban centres and rural spaces - transitional spaces subject to rapid and multiple transformations: physical, morphological, socio-demographic, cultural, economic and functional.

Our initial hypothesis in order to understand these processes is that within the metropolitan areas 'location' is never neutral. The urban peripheries do not constitute a simple framework of analysis, but a specific space in which settlement patterns, and land use correspond to diverse and often conflicting stakes, indicative of processes signifying a political and societal vision of the city and access to it.

Mixed spaces, apportioned between populations with contrasting life styles and varied land use, peri-urban spaces are also disputed spaces, bringing into play divergent and even conflicting interests. The need for housing, especially by the poor, the development and maintenance of greenbelts and new industrial zones, enter into competition.

The papers included in this first volume of the series of three Occasional Papers on peri-urban dynamics highlight the forces that govern peri-urbanisation and reflect upon the main issues at stake, as presented in the introduction (Véronique Dupont). They also attempt, more specifically, to refine the concepts related to the 'peri-urban' spatial category, and to better define and delimit this research 'object'. The authors examine not only the literature related to the Indian and Asian metropolises (Hans Schenk), as well as other developing countries (Suresh Rohilla), but also explore the concepts and models elaborated to analyse the evolution of the western metropolis, drawing in particular on the North American case (Paul Jargowsky, Pushpa Arabindoo) and the French case (Philippe Cadène).