
UNIT 4 PLANNING FOR CITY – REGIONS

Structure

- 4.1 Introduction
- 4.2 City-Region: Nature, Scope, and Structure
- 4.3 Types of City Region
- 4.4 Challenges and Measures for Development of Peri Urban Areas
- 4.5 Planning for the City Region
- 4.6 Let Us Sum Up
- 4.7 References and Selected Reading
- 4.8 Check Your Progress - Possible Answers

4.1 INTRODUCTION

Cities form focal points for a number of smaller settlements (including smaller urban places) around them. Together, the city and the dependent settlements constitute a functional region. All settlements within the city region interact with the city in many ways and this forms the basis of their inter-relationships. The knowledge about a city would be incomplete without an understanding of the nature of its complex relationships with the settlements around it.

In this unit you will read more about the city region. After reading this unit you will be able to:

- Explain the city and region relationship, types, and significance
- Describe urban eco-systems
- Suggest policy interventions for peri urban areas
- Explain planning for city region

4.2 CITY-REGION: NATURE, SCOPE, AND STRUCTURE

4.2.1 Nature of City Region

A city is usually looked upon as an entity dependent on its surroundings, and less often as an independent unit. What is not so commonly understood is the fact that the city and the countryside are mutually interdependent and this relationship covers a wide range of physical, social, and economic interactions. Further, the degree of interaction between the city and its neighbouring settlements tends to decrease with distance. This general spatial phenomenon is known as distance decay and has wide-ranging implications. Closely related to the above is the role of the city in the socio-economic development of the region. While a city may either retard or promote growth in its surrounding region, in the post-colonial world, the city is often seen as a centre of development.

It is often asserted that cities are somehow or other dependent on their surrounding regions for their existence and growth. In ancient times, a city emerged as a

result of the surplus production of food and other basic necessities of life in the area. The city had a class of citizens, engaged in tertiary activities, who were dependent on the countryside for food. The city, therefore, could not exist without the countryside. In the modern world, cities still depend on the countryside to a considerable extent for the supply of vegetables, milk and even grain. In some cities in India these items come, not from the immediate neighbourhood, but from hundreds of miles away. The modern industrial city also depends on the countryside for raw materials of mineral or agricultural origin.

A more realistic and certainly the most common situation is one in which city and regions are mutually interdependent. The city depends on the region for perishable items of food, for industrial raw materials, and as a market for its industrial products and tertiary services. The countryside depends on the city for non-agricultural employment, for sale of agricultural products, and for various services and goods. It is pointless to argue about whether the city is more dependent on the countryside or vice versa.

4.2.2 Structure of City Region

The city region is an area around the city over which the city exercises a dominant influence in relation to other neighbouring cities of equal importance. This simplified definition of the city region raises a number of conceptual problems which need further elaboration. To begin with one should be clear about the concepts of influence and dominance and how these relate to the hierarchy of cities. When we talk about the city region, we make comparisons with adjoining cities of equal importance; this necessarily implies that there are cities and towns of lesser importance within the city region, and, corresponding to these lower order cities, there are smaller city regions. Thus, the structure of a city region is complex. It consists of a series of areas of influence and areas of dominance, apart from sets of smaller city regions which nest within it. It is pertinent at this stage to examine three basic notions in relation to the structure of the city region: (i) the concept of area of city influence, (ii) the concept of area of city dominance, and (iii) the concept of the city region.

i) The Concept of Area of City Influence

The areas of city influence are contiguous areas around a city from where people commute to the city to obtain certain goods or services. A cinema hall in a city may attract patrons from several villages around the city. The continuous area encompassing all these villages is the area of influence of the city with respect to entertainment through the cinema. Likewise, various institutions in the city such hospitals, colleges, schools and so on have their corresponding areas of influence. The areas of influence for different services and goods may cover smaller or larger areas around the city and their shapes may also differ. Thus it is possible to visualize a large number of service areas around a city.

ii) The Concept of Area of City Dominance

In any landscape one would expect to find a number of cities of the same or similar importance, and the areas in between these cities are often served by more than one city. In other words, the areas of influence of neighbouring cities tend to overlap; thus generating a zone of competition in between. In the middle of the zone of competition one can define a boundary which separates the areas

of dominance of the competing cities. Within this boundary, the city exercises a dominant influence—its influence there is greater than the influence of any other city. The area of dominance of a city is an exclusive area and is, therefore, of great significance in terms of territorial or regional divisions. Further, the dominant area in reality is dominant not only with respect to one or two services, but with respect to all services of equal importance. Thus, the area of dominance is a multifunctional area, while the area of influence is essentially a uni-functional area.

iii) The Concept of City Region

The areas of city influence and dominance are further complicated by the existence of a hierarchy of cities and urban places which give rise to sets of areas of influence and dominance, one within the other. The city region may be defined as the area of dominance of a city corresponding to its hierarchical level. However, the same city also performs functions of a lower hierarchical order. As a result, each city may have more than one area of dominance. In fact, several areas of dominance fall within the city region in a concentric form. Similarly, for each hierarchical level we have a set of areas of influence representing each service or function. According to Scott *et.al*, city-regions are becoming increasingly central to modern life and all the more so because globalization has reactivated their significance as bases of all forms of productive activity, no matter whether in manufacturing or services, in high-technology or low technology sectors. According to them, there are now more than 300 city regions around the world with populations greater than one million.

4.2.3 Scope of City Region

In recent times the role of the city in bringing about socio-economic development in the city region has been given due recognition. However, not all cities perform this role. In the past, when cities were centres of alien domination, they had hardly any role in the growth or development of the rural areas. Conflict, both socio-cultural and economic, has been a characteristic and continuing feature of the Indian rural-urban scene from early medieval times. The rural areas were in fact exploited by the city folk throughout this period. Even in the post-Independence period the bigger cities have acquired a distinct cultural identity of their own. Though the social distance between urban and rural elite is substantial, Indian cities today play a major role in changing the social and economic environment of villages. There is greater interaction between the city and the village than before, and the interaction continues to increase.

The city today serves as a focal point for development in education and health and even for rural development. The spread of banking from the cities to the rural areas was a remarkable achievement of the 1970s. In the process, rural wealth has been mobilized for development. The role of the cities and small towns in bringing about the Green Revolution cannot be denied. The city is seen as a key element in regional development planning in India today.

After reading this section, you would have gained some idea about planning of city. Now you should be able to answer the questions given in *Check Your Progress 1*.

Check Your Progress 1

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit.

1) City and region are mutually interdependent? Explain?

.....
.....
.....
.....
.....

2) What is the concept of area of city influence?

.....
.....
.....
.....
.....

4.3 TYPES OF CITY REGION

The complex variety of structural components existing in the city region has led to the recognition of a few major empirical and normative conceptual notions. Among these, the following merits special consideration in view of their importance to the planned development of the city region and beyond:

- i) Peri-urban Areas
- ii) Rural-urban Fringe
- iii) Urban Corridors,
- iv) Satellites and Suburbs, and
- v) New Towns and Urban Counter Magnets.

4.3.1 Peri Urban Areas

The physical boundaries of urban built up areas often do not coincide with their administrative boundaries. The areas surrounding urban centres generally have an important role in providing food for urban consumers, with proximity lowering the costs of transport and storage. It is difficult to make generalizations on the nature of peri urban areas, which depend on the combination of a number of factors including the economic and infrastructural base of an urban centre, the region and the nation; the historical, social and cultural characteristics of the area, and, its ecological and geographical features. Peri-urban areas around one centre are also not necessarily homogenous: high- and middle-income residential developments may dominate one section, while others may host industrial estates, while others provide cheap accommodation to low-income migrants in informal settlements.

As a specific and non-neutral space, a peri urban area refers to a transition or interaction zone, where urban and rural activities are juxtaposed, and landscape features are subject to rapid modifications, induced by human activities. Peri-urban areas, which might include valuable protected areas, forested hills, preserved woodlands, prime agricultural lands and important wetlands, can provide essential life support services for urban residents.

A peri urban area is not only a zone of direct impact experiencing the immediate impacts of land demands from urban growth and pollution, but is also a wider market-related zone of influence that is recognizable in terms of the handling of agricultural and natural resource products. When an urban area grows disorderedly and spills over to peri urban areas, this process can be referred as peri urbanization. Peri-urbanization can be regarded both as a driver and an effecter of global environmental changes. Observing land use and land cover change over time, we can perceive the effect and impact of urbanization on peri urban areas. The complex interactions between urban land use, environmental change, and socio-economic system on peri urban area must be approached from a systems perspective to understand their dynamic interactions and function and services of peri-urban's ecosystems. The peri urban interface around larger or more prosperous urban centres is also the location where processes of urbanisation are at their most intense and where some of the most obvious environmental impacts of urbanisation are located. They are often characterised by:

- i) **Changes in land use:** land markets are subject to competitive pressure as urban centres expand and speculation is frequent. Whether low income groups such as small and marginal farmers or residents of informal settlements can benefit from these changes, or end up losing access to land, depends largely on land rights systems.
- ii) **Changing farming systems and patterns of labour force participation:** because, peri urban agriculture can be highly profitable, small farmers may be squeezed out by larger farmers who can invest in agricultural intensification. As a consequence, wage agricultural labour often becomes more important than small-scale farming, attracting migrant workers. On the other hand, residents of peri urban areas may benefit from employment opportunities in the city.
- iii) **Pressure on infrastructure and natural resources:** Changing demands for infrastructure and pressure on natural resource systems, with many rural dwellers' access to resources having to compete with urban demand (for example, for water, fuel wood and land for non agricultural uses) or affected by urban-generated wastes.

There is a need for an understanding of development that encompasses both rural and urban populations and the inter-connections between them. It acknowledges that where people live and work and other aspects of their local context influences the scale and nature of deprivation (whether they live or work in rural or urban areas). This understanding also recognizes that there are typical 'urban' and 'rural' characteristics that cause or influence people's livelihoods, although care is needed in making generalizations because of the great diversity between different urban locations (and rural locations).

For all the contrasts between ‘rural’ and ‘urban’, there are many exceptions. It is also useful to see that, in the middle of the continuum between ‘rural’ characteristics and ‘urban’ characteristics, there is a ‘rural-urban’ interface in which there are complex mixes of ‘rural’ and ‘urban’ characteristics. For instance, many of the areas around prosperous cities, or, on corridors linking cities, have a multiplicity of non-farm enterprises and a considerable proportion of the economically active population that commute daily to the city, or, find work seasonally or temporarily in urban areas. Many rural areas also have tourist industries that have fundamentally changed employment structures and environmental pressures.

If well managed, the interactions between towns and countryside are the basis for a balanced regional development, which is economically, socially and environmentally sustainable. Local development is increasingly associated with decentralisation processes, on the assumption that local government is ‘closer’ to citizens – meaning that it is both more accountable to them and that it has a better understanding of local needs and priorities. With regard to rural-urban linkages, local government can play an important role in facilitating positive interactions and limiting negative exchanges:

It is best placed for decision-making on physical transport and communication infrastructure; however, expenditure for infrastructure can be significant and well beyond the means of local government. Wider alliances, which increase access to financial resources, are therefore necessary.

The management of natural resources and wastes is an important area of local government intervention. However, it often includes much wider areas than those administered by local authorities, and requires alliances with other local, regional, national, and, sometimes, cross-border governments.

National level policies also have an important role, for example, with respect to access to land and land ownership and titling in both rural and urban areas. Clearly, this is not the responsibility of local authorities but is nevertheless crucial for local development planning and practice.

In short, understanding rural-urban linkages matters because it provides the basis for measures that can improve both urban and rural livelihoods and environments. Ignoring them means that important opportunities will be lost, and in many cases it will also contribute to poor and marginal people’s hardship. There are urban initiatives that can reduce ecological damage to rural areas, and help support regional development. However, with a narrow urban-centric approach, such initiatives are unlikely to be given the priority they deserve.

4.3.2 Rural Urban Fringe

The impacts of urbanization and climate change on the world’s environment and population are arguably two of the most pressing issues facing the world today. In rapidly urbanizing Asia, urbanization and climate change individually and collectively are a rapid and ever-growing challenge to regional and urban planners where traditional challenges, i.e., issues of governance, funding, rapid growth (geographic and population), increasing need for support infrastructure (transportation, water, sanitation), expanding social services, pollution, slums, etc.) are exacerbated by the need to more fully accommodate the direct and indirect

impacts of climate change and ecosystem loss in the planning process. Although certainly not overlooked in national, regional, and urban planning activities, there are two issues that, at present, are not considered to the extent that their impact merits, particularly in regional and urban planning:

- 1) The rapid expansion of urban centres into their “fringe zones” (peri urban, peri-agricultural, agricultural and undeveloped land)
- 2) The impact of urbanization on ecosystem sustainability.

Both issues are of critical and increasing importance to sustainable urban development, however, both issues are largely poorly understood and of ever increasing importance, particularly to urban planning and development.

The physical expansion of the city inevitably brings in concomitant changes in the social aspects of life in the fringe villages. The growth of industry, commerce, administration, and institutions of learning, arts and health generate jobs for the rural population. Jobs, even if of an unskilled nature with low salaries, are invariably welcomed by the rural community, who in the past have had to depend on an uncertain and precarious living by farming. For those who want to continue with farming, the rapidly growing city provides an expanding market for vegetables, fruits, milk, and so on. These market forces produce significant changes in rural land uses and even in the attitudes and values of the traditional rural people. In effect, the rural people change their lifestyle imperceptibly but significantly over a period of time and adopt a quasi-urban way of life. Thus, we have the emergence of a semi-urban society - a transitional phase between the rural and urban societies.

The peripheral areas around Indian cities show remarkable changes in physical and morphological as well as in economic and cultural terms. An understanding of the processes involved is vital to city planning in India. Before various aspects of the problem are examined, it is pertinent to attempt a clear definition of the concept of the rural-urban fringe.

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.

A distinct feature of the Indian rural-urban fringe is the presence of both rural and urban people in the revenue villages around the city. This dichotomy is not directly revealed in the census data, but may be indirectly inferred from it through a study of the literacy and occupational characteristics of the village population. Fringe zones associated with urban centres have become more numerous, larger and complex with rapid urbanization and the associated transition of large populations from rural to urban lifestyles. Typically, these complex fringe zones have strong interactions with the urban centre and are often characterized by similar physical, demographic and occupational characteristics. A major difference is that in many cases the fringe zone residents have varying access to urban services and facilities and more importantly fringe zone residents have only a limited voice in urban planning and development. Unfortunately, the loss of agricultural and undeveloped lands, unauthorized urban development and

industrial operations, environmental degradation and overall a significant alteration of critical ecosystems are serious and ever increasing problems faced by fringe zones.

Ecologically, the transformation of the urban fringe zones to alternative use is a potential aspect of the rural-urban transformation; the resulting impacts are in many cases irreversible, have broad complex linkages throughout the urban environment and are presently largely unrecognized.

In the following the above-mentioned issues regarding fringe zones, urban ecosystems and climate change are discussed in terms of the broad issues, linkages and the need for a better understanding and more complete inclusion of these issues in the overall urban planning process.

There are a multitude of reasons why urban planning in general, and for fringe areas specifically, urban ecosystems and climate change are often not fully integrated into more traditional urban planning. Among the most important reasons are

- 1) The urbanization process itself
- 2) The environment and ecology of the fringe area
- 3) Lack of adequate information on the “value” and “place” of ecosystems in urban planning
- 4) The interaction of climate change and cities.

Perhaps the main reasons that fringe areas are inadequately incorporated into overall urban planning have to do primarily with the urbanization process itself and in particular with respect to the following:

- a) **The rapid pace of urbanization:** Rapid urban expansion places an enormous burden on the planning process, i.e. planning for new development while simultaneously planning for the improvement and upgrading of the existing urban environment. As a result, in most urban centres the existing planning capacity is simply inadequate to an ever increasing task.
- b) **Urban governance and planning:** Fringe areas generally fall outside the jurisdictional boundaries of the governing bodies of the urban area. Therefore, the local governments of the fringe areas and those of the urban area often act separately in terms of overall planning. This lack of an integrated advocacy group for integrated urban planning for the fringe areas is arguably the largest single hurdle to overcome. Compounding the problem is that the local governments of the fringe areas often have only limited town/urban planning rules, regulations or planning capacity. As a result, their existing “urban planning” is at best incomplete and at worst non-existent. Similarly, the vastness and diversity of fringe areas and the piece-meal nature of development makes it almost impossible for local government to monitor and manage.
- c) **The structure of urbanization:** The process and the resulting spatial form of urbanization is a function of many factors. They are different for each urban centre. With variations, however, there is a general consensus that the

process becomes more integrated as the urban centre develops and the spatial form of growth can be broadly classified as concentric, sectoral or multiple nuclei in form. In urbanizing Asia, excluding the older more established major urban centres, the rapidly emerging new urban centres are primarily following the multiple nuclei form of development. This is of particular importance in that multiple nuclei development tends to create large amounts of fringe areas.

- d) Land use and speculation:** A primary driver of fringe development is the availability of relatively low cost land. This is even more attractive, for developers and speculators, because of the lack of comprehensive planning, rules and regulations. Extensive fringe development has two very important implications:

First, unplanned and unregulated fringe development is undertaken in anticipation of, but without, the necessary public facilities, schools, and infrastructure (particularly water and sanitation) that are required to support an urban population. The result is a complex mixture of land uses and variable areas of development often accompanied by substantial environmental and ecological impact.

Second, and perhaps the most critical issue arising from fringe urbanization that is particularly important in Asia in general and in the Greater Mekong region specifically, is the loss of approximately 100,000 hectares per year of agricultural land to urban development. The loss of agricultural land has obvious ramifications in terms of food supply and food prices but equally important is that it also results in a change in lifestyle for those disenfranchised from the land: many of whom migrate to the urban centre, further driving the urbanization process.

4.3.3 Urban Corridors

The rural-urban fringe may extend in a linear fashion along the arterial roads and railways, sometimes to a distance of over 30 km from the city centre. Near the city, the corridor is a part of the rural-urban fringe, while some distance away it becomes very dis-contiguous with long stretches of rural land use separating areas of urban land use. These dis-contiguous portions of the corridor lie outside the rural-urban fringe zone. Most corridor developments near metropolitan cities are easily identified. For example, there are seven corridors around Delhi. These are: (a) the Delhi-Ghaziabad-Modinagar corridor, (b) the Delhi-Ghaziabad-Hapur corridor, (c) the Delhi-Ghaziabad-Bulandshahr corridor, (d) the Delhi-Sonepat-Panipat corridor, (e) the Delhi-Najafgarh-Bahadurgarh corridor, (f) the Delhi-Gurgaon-Rewari corridor and (g) the Delhi-Faridabad-Ballabgarh corridor. Most, if not all, of the above, are industrial corridors with a number of large scale industries located on either side of the road leading to Delhi. In theory, urban corridors are of two types: urban industrial corridors and urban residential corridors. Urban residential corridors lie entirely within the rural-urban fringe area, while industrial corridors may extend beyond the fringe in a dis-contiguous manner. Examples of both types of corridors can be found near the metropolitan cities. Corridor development, in general, is mainly confined to the metropolitan periphery and is by and large absent in the area around one-lakh cities. In particular, almost all of the metropolitan cities have very conspicuous and fully developed corridors. The suburban electric railway network has greatly contributed to the growth of corridors near Mumbai, Chennai and Kolkata. In Mumbai and Chennai,

a string of residential suburbs along the main railway lines have contributed, to some extent, to the decentralization and decongestion of the inner areas of the cities.

4.3.4 Suburbs and Satellites

The term suburb, as currently used in India, implies merely a location near the periphery of a metropolitan city. The major metropolitan cities of India are served by suburban railway lines which pass through a number of stations. These places are perhaps the best known suburbs in India. Not all suburban places are legal towns. Some of them, in fact, are not even recognized as urban places in the Census of India. However, to be designated as a suburb, a place need not be a legal town or a recognized administrative area. Very often suburbs develop as residential colonies within the villages in the metropolitan periphery. These colonies often have high sounding modern names. In actual fact, however, these places do not have a separate administrative identity, but merely form part of a traditionally named revenue village. The people living in the residential suburbs, however, identify themselves with the metropolitan city and even claim to be living within the city. Further, the postal and telephone departments consider the suburbs as part of the metropolitan city and treat them in the same way as central areas of the city. These suburbs, however, do not receive the benefits of any of the metropolitan city services, nor do they pay taxes to the city.

Most suburbs are purely residential in character. People living in these suburbs commute to the city for work and are, in fact, dependent upon the city for most services such as higher education, health, and shopping. There are, nevertheless, a few suburbs where large and medium scale industries provide employment locally. In addition, in some cases, the industrial establishments themselves provide housing for their employee. In this case, we have a self contained township. Such townships with residential, commercial, and institutional areas are often designated as satellite townships. Conceptually, satellite towns differ from the suburbs mainly on account of the presence of industrial and other establishments which provide an employment base in the settlement itself. A good example of a satellite town is Faridabad, located about 30 km south of Delhi. In many cases, satellite towns generate reverse commuting from the city to the satellite town.

The term 'satellite town' is at times used to designate a place that is at a distance from the city, but linked to it through the daily commuting of people. In this case, the difference between suburbs and satellites is merely one of distance from the city centre. Suburbs are closer to the city while satellites are located farther away.

Satellites and suburbs, in this latter sense, may have a residential as well as an employment base. However, satellites in this case are located outside the rural-urban fringe, while suburbs are an integral part of the rural-urban fringe..

Suburbs and satellites are also labelled as ring towns, particularly by town planners. Around Delhi, the National Capital Regional plan recognizes two categories of ring towns - the inner ring towns and the outer ring towns. These correspond to the terms suburbs and satellites discussed above. There are, however, some minor differences. The ring towns are in fact recognized urban places, while suburbs include both recognized and unrecognised urban places.

The ring town concept is used by planners primarily as a strategy to stem the tide of immigration and overcrowding in the inner city. Towards this end, planners often suggest strengthening of infrastructure facilities in the ring towns to attract more people there. In practice, the ring towns have not received the attention they deserve and, in most cases, the infrastructural facilities, such as water supply and sewerage, remain woefully inadequate.

4.3.5 New Towns and Counter Magnets

New towns and counter magnets are also normative concepts that lend additional support to the basic objective of the green belt concept, namely to protect the main city from the flow of new immigrants and rapid physical growth. As the term suggests, new towns have nothing to do with existing towns, but are entirely new in terms of their location, layout plans, and infrastructure. They are conceived as independent townships with residential areas, employment areas, shopping centres, educational and health facilities, and all the basic urban amenities such as water supply, sewerage, and so on. The daily interaction between the new town and the city ought to be minimal, while economic activities in the new towns will take advantage of the economies of scale made possible by proximity to the main city. The new town idea has been widely accepted in England, where a large number of such towns have been established around London, Birmingham and other big cities.

After reading this section, you would have gained some idea about urban ecosystem planning. Now you should be able to answer the questions given in *Check Your Progress 2*.

Check Your Progress 2

- Note:** a) Write your answer in about 50 words
 b) Check your answer with possible answers given at the end of the unit

1) Why are urban ecosystem and climate changes not fully integrated into traditional urban planning?

.....

.....

.....

.....

.....

2) What are the problems faced by fringe zones in urban areas?

.....

.....

.....

.....

.....

3) What are urban corridors and suburbs?

.....

.....

.....

.....

.....

.....

4.4 CHALLENGES AND MEASURES FOR DEVELOPMENT OF PERI URBAN AREAS

4.4.1 Challenges of Peri-Urban Areas

Some of the challenges of peri urban areas are narrated below:

a) Complexity in environmental planning in peri urban areas

Changes in the peri urban interface range from urban expansion to the decline of agricultural and rural employment opportunities. Therefore, managing the environment of this interface has significant implications, not only for the livelihoods and quality of life of those who live in these areas but for the sustainability of urban and rural development, also. This is because the ecological, economic and social functions performed by and in the peri urban interface affect both the city and the countryside.

b) Complexity in mosaic of rural, urban and natural subsystems

From an environmental perspective, the peri urban interface can be characterized as a heterogeneous mosaic of “natural” ecosystems, “productive” or “agro-” ecosystems, and “urban” ecosystems affected by the material and energy flows demanded by urban and rural systems. Each of these sub-systems both conditions and is conditioned by the other two. An environmental conceptualisation of the peri urban interface has several implications for its analysis and for policy interventions. First, it opens a new understanding of these processes, calling upon the articulation of social, economic, and biophysical aspects. For instance, this reveals that the processes of private appropriation of land, either through real estate speculation, or, through the marginalisation of certain groups, reinforce unequal conditions of environmental quality. Thus, areas subjected to environmental hazards often become the habitat of lower income groups, whilst those areas of high environmental quality constitute the epicentre of speculative mechanisms.

Second, the carrying capacity of the region (soil productivity, vulnerability to floods, availability of drinking water, etc.) includes a set of more appropriate criteria for the environmental assessment of the peri urban interface than the conventional zoning criteria based on density, morphology, and urban and rural uses of the territory. Through trade and natural flows of ecological goods and services, cities tend to draw on the material resources and ecological productivity of vast hinterlands. The expansion of cities’ ecological footprints has important implications for the peri urban interface in terms of both increasing pressures on its carrying capacity and missing production opportunities, for instance when

food is imported from distant regions rather than supplied from the city's hinterland. The quest for reciprocal and environmentally sustainable relations between urban, peri urban, and rural systems demands a reappraisal of the concept of the “urban bio-region”.

c) Challenge of changing social structures

From a socio-economic viewpoint, the peri urban interface also presents several peculiarities. The continuous, but uneven process of urbanization taking place in these areas is generally accompanied by land speculation, shifting economic activities of higher productivity, and the emergence of informal and often illegal activities such as, intensive use of agro-chemicals and fertilizers for horticultural production, and mining or quarrying activities for the supply of building materials. As a result, the social composition of peri urban systems is highly heterogeneous and subject to change over time. Small farmers, informal settlers, industrial entrepreneurs, and urban middle-class commuters may all co-exist in the same region, but with different and often competing interests, practices and perceptions.

Thus, a second distinctive characteristic of the peri urban interface is that social groups are heterogeneous and in constant transition. That is to say, the composition and interests of these groups tend to change over time, in a process characterized by the fluctuating incorporation of new stakeholders. As a result, it is difficult to establish clear, and, more or less permanent institutional arrangements that deal effectively with the long term management of natural resources and the enhancement of the livelihoods of those living and working in the peri urban interface.

d) Challenge of Institutional landscape

The peri urban interface is often characterized as the converging of sectoral and overlapping institutions with different spatial and physical remits. This is related to the changing geographical location of the peri urban interface, or, of the process whereby institutional arrangements or areas of responsibility tend to be too small or too large, too urban or too rural in their orientation to address sustainability and poverty concerns effectively. In addition, private sector bodies as well as non governmental and community-based organizations also intervene in the management of peri urban areas, but often without clear articulation or leadership from government structures. The problem of institutional fragmentation is particularly relevant for understanding the constraints faced in environmental planning and management within this interface. Peri urban areas often share the territory of more than one administrative unit. Weak links and limited municipal power in sectors such as transport, water, energy, solid and liquid waste management, and land-use planning often result in uncertainty as to which institution administers which specific area or activity. No district is able to apply a single isolated approach when supplying the comprehensive water and energy flows required by its population, or to manage the wastes and pollution generated by that population within its jurisdictional limits. This discussion implies that environmental planning and management of this interface demands a conceptual and methodological shift from the physical definition of urban and rural areas (understood as clearly limited geographic and administrative entities) to a broader understanding, whereby the complex patterns of settlement and resource use, the flow of natural resources, of capital, goods, services and people, do not fit or accord with jurisdictional boundaries.

4.4.2 Measures for the Development of Peri-Urban Areas

Two measures that can broadly be recommended for the development of Peri-Urban areas are follows:

i) Empowerment of Panchayati Raj Institutions for Development of Peri Urban Areas

Infrastructure in Indian peri urban areas is the liability of the state governments. The Constitution of India also makes it mandatory for constituting city panchayats for the areas in transition from rural to urban habitation. District planning committees and metropolitan area planning bodies have the constitutional backing for preparing development plans of the entire area for which such bodies have responsibilities for coordinating development activities that are mainly confined to the functions entrusted to them by the state legislature. It is the state government's responsibility to create the legal framework for providing infrastructure services in peri urban areas through panchayats, its own departments, other government agencies or private organizations.

Peri urban areas are in general under panchayats and a state may give panchayats such powers and authority for enabling them to function as institutions of self government. The Eleventh Schedule of the 73rd amendment to the Constitution specifies 29 areas of responsibility that states may devolve to the panchayats. Of the 29 areas specified, rural housing; drinking water; roads, culverts, bridges, ferries, waterways and other means of communication; rural electrification, including distribution of electricity; non-conventional energy sources; education, including primary and secondary schools; libraries; cultural activities; markets and fairs; health and sanitation, including hospitals, primary health centres and dispensaries are directly related to infrastructure.

Capacities of panchayats are inadequate to finance and manage infrastructure in peri urban areas. Subjects of local self government were assigned to states by Government of India and states are authorized to decide on taxation and other financial powers of panchayats, besides the functions that are assigned to the panchayats. States in India accordingly have followed different practices with respect to giving taxation powers to panchayats. In fact, most local taxes are levied by the state governments, thus limiting financial capacities of panchayats. Only minor taxes like animal tax, boat tax, toll tax, and non-taxes like charges from fare, sale proceeds of trees, charges for collecting river sand, plan sanction fees, etc have been assigned to panchayats in many states. The conditions of municipalities are only marginally better mainly due to the right given by the states to collect property tax on houses and commercial buildings.

Panchayats are mandated to prepare plans for economic development and social justice, and the implementation of schemes for economic development and social justice in rural areas, as may be assigned to them, including those that relate to matters listed in the Eleventh Schedule. The first step in infrastructure management in a peri urban area is planning for the area, and panchayats lack the capacity to prepare such plans. Proper infrastructure management in peri urban areas also involves programming of investments and expenditure, design, construction, maintenance, operation, and in-service evaluation. Panchayats do not have the requisite technical manpower or trained personnel to carry out these functions. Thus, panchayats can give very little attention to delivery of

infrastructure in peri urban area within its bounds. In short, panchayat political structure is established for rural development, but their capacity for providing, maintaining, and operating suitable infrastructure, especially in peri urban areas is extremely limited. Therefore, there is a need for empowerment of panchayats with regard to allocation of adequate resources from the state exchequer and to enable them to impose various taxes for enhancing their own sources of revenue for the development of peri urban areas.

ii) Central Scheme for Bridging Infrastructure Gaps in Rural Areas Around Towns

Provision of Urban Amenities in Rural Areas (PURA) of the Ministry of Rural Development, Government of India is a pertinent scheme for infrastructure development in peri urban areas. PURA aims at bridging the rural-urban divide and achieving balanced socio-economic development by providing physical and social infrastructure in the identified rural clusters consisting of 10 to 15 villages within a radius of 4 to 5 kilometres around selected towns. To enhance the growth potential of these villages, PURA focuses on provision of drinking water; upgrading existing health facilities; road connectivity, improvements in transportation; power connectivity; electronic connectivity in terms of reliable telecom, internet and IT services; establishment of good educational and training institutions; and developing market connectivity to enable farmers to get the best prices for their produce. It is contemplated that the resource allocation under PURA is for incremental gap filling where existing program allocations are not sufficient. PURA is a 100 per cent centrally sponsored plan scheme with expectations that it will take about two to three years to complete its activities. So far, (2004-2005 to 2006-2007) under the scheme, the central government has allocated Rs.30 crores and released Rs.21 crores to seven states which have utilized Rs.12 crores. Although the Planning Commission has identified 504 towns (one town per selected District) up to a population of one lakh for consideration under PURA, the basic idea of the scheme is relevant to the peri urban areas of all urban centres. Long term environmental strategies for the peri urban interface should be based on an understanding of the current policies that affect, directly or indirectly, the processes of change taking place in peri urban areas. The environmental policies or interventions with a specific focus on this interface are still rare. This is partly because of the lack of institutions with a clear and specific remit on peri urban areas.

Therefore, when examining those policies and strategies that affect the peri urban interface, it is necessary to take a broader perspective, considering not only policies that have more immediate impacts on peri urban areas but also on those which affect a variety of flows between rural and urban areas.

4.5 PLANNING FOR THE CITY REGION

The city region has often been recommended as a territorial unit for regional development planning. The recommendation is based on the comparative merits of the city region in relation to other types of regions, such as river valleys or homogeneous or formal regions. The city region as a unit of regional planning should, however, not be confused with the concept of city planning area. The latter covers a much smaller area around a city or metropolis although, occasionally, the city planning area is also mentioned as the city planning region.

Nevertheless, the city region and city planning area are fundamentally different concepts; they are not only different in size, but the planning objectives, methods of planning and plan strategies for each also differs significantly. A clear understanding of these differences will eliminate the common misconceptions about the spatial framework of regional and city planning.

The delimitation of areas of influence of individual cities has a number of uses. To begin with, the exercise in itself provides an understanding of the spatial form and extent of the city's influence with respect to one or more criteria. If the criteria are chosen with clear planning objectives in mind, then they become even more important. As an illustration, let us take a modern health facility such as a hospital equipped for the treatment of common diseases. The area of influence, as defined from the hospital data on in-patients, would surely indicate that some areas or villages are not served by the hospital. It would then be possible to investigate why this is so. Such an investigation would provide the basis for a new strategy for the expansion of health facilities. A similar argument can be advanced for most social services, such as education at various levels, crop insurance, banking services, and so on. The methodology used in the study of area of influence of a city can also be used for examining the spatial extension of programmes and schemes for rural development. Most programmes for rural development originate from cities. Thus, schemes for family welfare services planning, health, agricultural extension, rural credit and marketing can be evaluated and better organized by the application of methods of geographical field enquiry.

The city region has a number of inherent advantages as a spatial unit for regional development planning. The city, being the only focal point, has easy access to all places within the region. Even at the initial stage, its influence in terms of tertiary services extends to all parts of the region. Economic and social planning can take advantage of the existing links between the city and the countryside. Development, it is commonly asserted, occurs in an uneven manner, with cities becoming the initial nuclei of development. Cities play an important role in bringing about changes in agriculture, rural education and health. In recent times, cities have become the new centres of modern industry. In some cases, the leading manufacturing units in the city attract ancillary industries, thus, paving the way for self-sustaining growth. The forces of urban and industrial agglomeration not only contribute to the growth of the city, but also lead to the industrialization of the countryside. These notions have generated the concept of cities acting as growth points and growth centres. The promotion of a hierarchy of such centres is one of the major strategies of regional development planning at present. The city region provides a convenient and sound spatial framework for such an approach to regional planning.

After reading this section, you would have gained some idea about urban city planning. Now you should be able to answer the questions given in *Check Your Progress 3*.

Note: a) Write your answer in about 50 words

b) Check your answer with possible answers given at the end of the unit.

- 1) The city region has often been recommended as a traditional unit for regional development planning. Explain.

.....
.....
.....
.....
.....

- 2) Capacities of panchayats are inadequate to finance and manage infrastructure in peri urban areas. Explain.

.....
.....
.....
.....
.....

4.6 LET US SUM UP

In this unit, you have read about the city-region relationship, their interdependence and the role of city in the socio-economic development of a region. You have also read about the significance and types of city region. The unit also deals with the importance of urban ecosystems and the impact of climate change and the associated risks to populations in urban areas. The policy interventions for the development of peri urban areas have also been dealt in depth. The unit also briefly explains the planning for the city region.

4.7 REFERENCES AND SELECTED READING

Allen, Adriana 2001, “Environmental planning and management of the peri-urban interface (PUI): perspectives on an emerging field”, Development Planning Unit, University College London, 9–10 November 2001.

MacGregor, Sherilyn 1995, “Planning change: not an end but a beginning” in Eichler, Margrit (editor), Change of Plans: Towards a Non-sexist Sustainable City, Garamond Press, Toronto, pages 151–167.

Healey, Patsy 1997, Collaborative Planning Shaping Places in Fragmented Societies, MacMillan, London.

Tacoli, Cecilia 1998, “Rural–urban interactions; a guide to the literature”, Environment and Urbanization Vol 10, No 1, pages 147–166.

Iaquinta, David L and Axel W Drescher 2001, "More than the spatial fringe: an application of the peri-urban typology to planning and management of natural resources", Development Planning Unit, University College London, 9–10 November 2001.

Durand-Lasserve, Alain 1998, "Rural–urban linkages: managing diversity. Governance as a matrix for land management in the metropolitan fringes", international workshop on Rural–Urban Linkages, Curitiba, Brazil, March 1998.

Alam, S. M. 1965, Hyderabad-Secunderabad (Twin Cities): A Study in Urban Geography, Allkd Publishers, Mumbai.

4.8 CHECK YOUR PROGRESS-POSSIBLE ANSWERS

Check Your Progress 1

- 1) The city depends on the region for perishable items of food, for industrial raw materials, and as a market for its industrial products and tertiary services. The countryside depends on the city for non agricultural employment, for sale of agricultural products and for various services and goods.
- 2) The areas of city influence are contiguous areas around a city from where people commute to the city to obtain certain goods or services. A cinema hall in a city may attract patrons from several villages around the city. The continuous area encompassing all these villages is the area of influence of the city with respect to entertainment through the cinema. Likewise, various institutions in the city such hospitals, colleges, schools and so on have their corresponding areas of influence. The areas of influence for different services and goods may cover smaller or larger areas around the city and their shapes may also differ. Thus, it is possible to visualize a large number of service areas around a city.

Check Your Progress 2

- 1) There are a multitude of reasons why urban planning in general, and for fringe areas specifically, urban ecosystems and climate change are often not fully integrated into more traditional urban planning. Among the most important reasons are (1) the urbanization process itself, (2) the environment and ecology of the fringe area; (3) lack of adequate information on the value and "place" of ecosystems in urban planning, and (4) the interaction of climate change and cities.
- 2) The loss of agricultural and undeveloped lands, unauthorized urban development (sprawl) and industrial operations, environmental degradation and overall a significant alteration of critical ecosystems are serious and ever increasing problems faced by fringe zones.
- 3) The rural-urban fringe may extend in a linear fashion along the arterial roads and railways, sometimes to a distance of over 30 km from the city centre. Near the city the corridor is a part of the rural-urban fringe, while some distance away it becomes very dis-contiguous with long stretches of rural land-use separating areas of urban land-use.

On the other hand suburbs are merely a location near the periphery of a metropolitan city. Suburbs are an integral part of the rural-urban fringe. .Not all suburban places are legal towns.

Check Your Progress 3

- 1) The city region has a number of inherent advantages as a spatial unit for regional development planning. The city, being the only focal point, has 'easy access to all places within the region. Even at the initial stage, its influence in terms of tertiary services extends to all parts of the region. Economic and social planning can take advantage of the existing links between the city and the countryside. Development, it is commonly asserted, occurs in an uneven manner, with cities becoming the initial nuclei of development. Cities play an important role in bringing about changes in agriculture, rural education, and health.
- 2) Subjects of local self government were assigned to states by Government of India and states are authorized to decide on taxation and other financial powers of panchayats, besides what functions are to be assigned to panchayats. States in India accordingly have followed different practices with respect to giving taxation powers to panchayats. In fact, most of local taxes are levied by the States, thus limiting financial capacities of panchayats. Only minor taxes like animal tax, boat tax, toll tax, and non-taxes like charges from fare, sale proceeds of trees, charges for collecting river sand, plan sanction fees have been assigned to panchayats in many states.

IGNOU
THE PEOPLE'S
UNIVERSITY