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Basic of Urban Expansion

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Abstract: ***Urbanization is a phenomenon which has in more ways than one affected lives of people to the biggest extent than any other development in recent times. It is not that the urbanization is a new and recent phenomenon but the vehemence with which it has gained currency and touched and transformed lives of people in recent times in noteworthy. Not long ago land was freely and readily available in plenty which provided enough gunpowder to trigger off widespread transformation of rural areas and also germination of new urban areas. The new urban areas acted as magnet in inviting population from far and near to come, settle which in turn sparked off a horizontal expansion which engulfed most of rural hinterland adjacent to an upcoming urban area. The rural hinterland was forced to inculcate traits of its adjacent urban area in terms of concrete constructions and socio-economic infrastructure. As a result of this the margins of the urban area started to widen. They no longer remained constricted to specific area but instead started expanding horizontally as land and resources required for expansion was readily available. The rural hinterland began to act as satellite to the main urban area. Initially the construction which occurred there were in the form of warehouses, factories and working units. With passage of time residential and socio-economically significant structures also started coming up in these areas. But these areas didn't altogether surrender or give their rural character. Their identity still had the rural character which was their own. It is in the hindsight of these transformations that terms like urban sprawl and peri-urban areas came to existence. This paper shall object to identify the object behind the onset of two of these concepts and also put forth the characteristics of these concepts.***

Keywords: Horizontal spread, Land depletion, Peri-Urban, Transformation, Urban Sprawl

1. Introduction

In the recent decade as the population swelled up giving its way to large scale migration the concept of urbanization mushroomed and manifested itself in various forms in different parts of the country. As a part of this transformation and also as an outcome of same, there occurred on a scale never seen before, massive conversion of land and scathing change in the land use pattern. The land which was till now equally utilized for primary purposes got more and more channelized for residential and commercial purposes. This involved utilization of the land which was not put to use or the vacant land in around the inhabited land thereby triggering of horizontal expansion of urbanization. The magnetic character of urbanization generated an un-arrested demand for land and for construction of various kinds viz. residential and commercial. The process of transformation from rural to urban setup accelerated and spread its horizons owing to the scientific and technological innovations it began swallowing more and more of land. The transformation of cities to megacities and metropolis perpetrated environmental degradation and serious alterations in climatic pattern which resulted in shrinking of areas available agriculture and allied activities and also for urban green spaces like parks and open spaces.

To put it simply, urbanization is the augmentation of number and proportion lives existing in an urban milieu. Augmentation is a character which is in built in urbanization. Urbanization since its inception has never been stagnant. It is always expanding. This expansion is horizontal in nature which involves utilizing more land for the purpose of construction of diverse structures and leaving a little or no space for the greens. Increase in population is one of the factors of this expansion. This population increase can simply be accredited to the number of births outplaying the number of deaths in an area. Owing to advancement in the medicine and hospitality sectors and also sanitation and transportation humans are able to resist demise for a longer period and able to produce more live births. Thus the need for an urban area is always maintained. Another reason for expansion of urbanization is trans-border migration or international migration as it can also be called. Foreign nationals only migrate to cities which are urbanized. Though this factor isn't much of a driving force in expansion of urbanization but it goes a long way in maintaining an area urban as the foreign influx generates a healthy sum of revenue which is used to maintaining the area urban. The laurels of expansion of urbanizations rest mostly on the shoulders of internal rural-urban migrations. This concept of rural-urban expansion works in two ways. Firstly it reduces the rural population by taking them to more developed and urban areas thereby marking a corresponding rise in urban population. Another cause behind the expansion of urbanization is when an area attains the standards of urban set by civic administration it comes to be redefined as urban. This redefinition mostly happens in cases where an area has attained the enough economic resources to sustain the non agrarian bourgeois. The last cause of urbanization is can be called metropolitanization whereby rural and peri-urban areas are brought under the urban area either demographically or significantly bought within the sphere of daily chores of urban areas.

2. Urban Sprawl and Peri-urban area

Since the inception of recorded history of human settlement there was a stark difference between urban and rural habitations of human being. But also there was a simultaneous existence of space which presented an amalgam of both kinds of habitations. These were spaces which were inhabited by people who were economically challenged to find a space in the main urban habitation yet were an integral part of the urban system and also housed commercial activities which couldn't find space in the urban milieu. With passage of time these habitations graduated to become suburbs which were inadvertently subsidiaries to the adjacent urban areas. These suburbs were mostly built along

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the railway tracks or street cars and displayed distinguishing traces of the urban habitat yet had a distinct rural character. This is why development of suburbs cannot be interpreted as development of urban sprawl.

Urban sprawl is the most obvious outcome of urbanization. In the past few decades urban sprawl have come to be the most widespread form of human settlement in both developed and under-developed economies. The term urban sprawl was coined by William Whyte (1958) and since then after much deliberation it has come to be defined as "*the growth of a metropolitan area through the process of scattered development of miscellaneous types of land use in the isolated locations on the fringe, followed by the gradual filling-in of the intervening spaces with similar uses"*. Generically speaking urban sprawl is a word which denotes the phenomenon of encroachment of a city to its peripheral rural areas characterized by scarcity of open spaces, swollen demand of transportation and social segregation. And this encroachment is not necessarily only by erecting new residential architecture but also by construction of commercial centers, industrial zones, recreational spaces, which are an integral, part of urban living and there are certain patterns in which the expansion of urban area into urban sprawl occurs. These patterns also characterize the urban sprawl. One of the most popular ways of mushrooming of urban sprawl is that as space within the city becomes less available, city developers and planners erect structures in the considerably far off places where the land prices are comparatively and substantially low. The lower land prices and space available compensates for the distances one has to travel. In such cases the development that occurs is commercial in nature rather than residential. Another pattern that is observed in the making of urban sprawl is erection of vast commercially viable structures alongside the arterial roads of the city. This happens mostly in cases where commercial activity is dependent of heavy vehicular traffic. One of the advantages of this kind of pattern of sprawling is that it has the potential to avoid traffic congestion and the resultant side effects as the people engaged in commercial activity doesn't have to travel much from center to center. The last pattern is the most widespread of the patterns found and observed is the single dimensional development of low density. This is also the pattern which establishes the character of the urban sprawl in the best manner. In this pattern large residential establishments along with their smaller counterparts come up adjacent to each other leaving little or no space for the greens. Residents have to travel through a dense network of roads to get to one place from another. Along with these the land use phenomenon of urban sprawl displays a myriad of characteristics.

- Overabundance of construction on land both commercial and residential with each having separate parking acres of their own.
- Limited modes of travel.
- Nature of housing repetitive giving rise to the problem of choice.
- Open spaces, public spaces, community centers hardly seen or found.

Since the phenomenon of urbanization is related to transformation, another of its outfall other than urban sprawl is the development or germination of peri-urban areas. Peri-urbanization is a process by which rural areas located on the fringes of the established urban dwellings attain urban character and display traits of transformation. One prevailing definition of peri-urban area is '*discontinuous built development, containing settlements of less than 20,000, with an average density of at least 40 persons per km'*.This transformation is most cases driven by dominance whereby a small agrarian community is coerced to assimilate itself to the urban, commercial and industrial ways of the agglomeration nearby. This assimilation is more often than not permanent in nature as it encompasses every aspect of change i.e. social, physical, environmental and economic.

The concept of peri-urbanization is not without catalysts. Economic policies across the world nowadays involve large scale investment both domestic and foreign. These involve a gigantic demand of low costing and easily available lands. Thus investors move towards the peri-urban regions as they offer precisely cater to their demands in the best fashion by offering what cheap land which require minimal environmental clearances and also distance happen to be very much commutable from the main urban center. Public policy of dispersing the manufacturing units outside the core of the urban areas in order to minimize health and space hazards within the urban agglomeration also acts as a catalyst in peri-urbanization. By disbursing manufacturing units to the peripheral areas, the policymakers also divert a chunk of employed gentry to the under developed area due which residential and social structures come up in these peripheral areas in order to sustain the gentry. Another catalyst of peri-urbanization happens to be the availability of free and cheap labor within the region and also via migration owing to the employment opportunities that the peri-urban area tends to offer. Since the migrant labor which is coming in cannot travel to and from his native place on daily basis, many supporting structures are bound to come up within the area to support their sustenance. This also leads to urbanization of the otherwise rural area. While catalysts of peri-urbanization may vary depending upon various factors, there are some characteristics of the peri-urban regions which are true for any such conglomeration.

- Shift from agrarian to manufacturing dominated economy accompanied by a change in employment structure.
- Rapid increase in population, though much of it remains un-counted because of the un-permanent nature of influx and outflow of population.
- Stark alteration in spatial patterns and a sharp rise in land value.

Though the peri urban area is an independent entity of its own but more often than not it comes up as an amalgam of both rural and urban areas displaying and bearing characteristics of both the dwelling systems. To better understand the heterogeneity of peri-urban areas it is essential to identify the various layers of human habitation which constitute an urban agglomeration.

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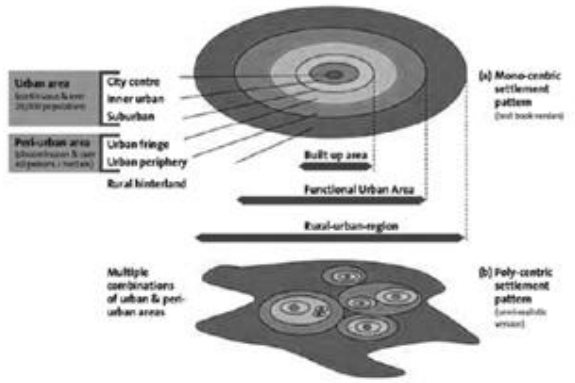


Figure 1. Peri-urban areas and the 'rural-urban region' – Geographic concepts and definitions as used in the PLUREL project. (Source: Piorr et al., 2011. Source: Lobl et al., 2011:25)

- Urban Core – This layer constitutes the Central Business Districts and other civic centres. It's the layer of the agglomeration which decides as well as regulates the nature of the agglomeration.
- Inner Urban area – This layer of the agglomeration houses the maximum number of population. This area is a high built up area and the architecture found in this area is residential in nature.
- Suburban area - In this stratum residential built up is more acute and dense and the quality of architecture of residences despite being of an inferior quality than its predecessor is very much attached to it. Here the distance between houses is not more than 200 meters.
- Urban fringe – This refers to a zone adjacent to the built up area inhabited by a lower density of population. This zone acts more like a transport hub or is used for warehousing purposes as this area is marked by presence of large open space since it is located in the boundary of an urbanely inhabited area. Unlike its predecessors, this area presents a scattered look.
- Urban periphery- This is a zone which surrounds the urban area. It is less populous than the urban area but acts as a satellite to it.
- Rural hinterland- These are areas which exists near the urban areas but are largely unaffected by them.

The peri-urban area includes traits of both urban fringe and urban periphery.

The grip that urbanization has made in the lives of people, it is translucent that urbanization and moving toward urbanization is the most arresting norm of time. Urban areas have come to be a point of convergence of various infrastructures to support human dwelling as well as thriving. But everything cannot be assimilated in a given restricted space and yet made to retain its character. This is the causation of peri-urban areas and urban sprawl which despite possessing urban traits cannot be either assimilated in the urban area or categorized in the rural section.

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