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Urban Sprawl

Balamurugan Paramasivam and Illanthirayan Arumugavelu

Abstract

Swift progress in urban areas can pilot to urban sprawl, where new components are urbanized around the external boundaries of urban areas, frequently taking up important farmland. Many tenants want better residence, comfortable space, and calm and safe environment, which they discover in the new suburban growth far separate from the center of the city. This kind of expansion requires the addition of utilities and the transport network, as well as the precautions of services such as education, amusement, medical facilities, and commercial services. A number of Indian cities, for example, have a "Delhi," a "Mumbai," and other cultural-based communities that reflect our multi-cultural people. Historical information said, many Indian immigrants who lived in these neighborhoods were poorly treated and subject to racism and discrimination by the general people. Urbanization is a truth of life in most cities in India and around the world.

Keywords: town and city, migration, growth, sprawl, urbanization

1. Introduction

The history of urban sprawl is unwritten, and only a small part of the beginning work has been done. The history of urban sprawl dates back from the ancient times of the origin of cities (during what is referred to as the first phase of urbanization in the world). While Gordon and Richardson [1] define urban sprawl as leapfrog development, DiLorenzo [2] defines it as growth with cancer or virus. In the confusion in the definition of urban sprawl, Wilson et al. [3] and Galster et al. [4] state that describing would be more suitable than defining. In this long duration, what was witnessed was the growth of cities from ancestral form to small harbor/rail-based towns and to the present-day cities with skyscrapers adorning landscapes. By the end of the 20th century, urban growth was rapidly pushing cities further and further out, and the cities were expanding spatially, while in the 21st century, the automobile revolution changed the dominant form of city living. This stretched form of the city with low density at the periphery is sometimes called sprawl. Since sprawl is one name for many situations, there has been no clear consensus regarding what exactly "urban sprawl" is or how it is caused. Although many researchers tried to get bring with descriptions of the idea, the fundamental component of most descriptions and most people's acceptance of sprawl is this: Sprawl is the spread out of an urban area, and it is suburban over more considerable for country land at the fringe of an urban area. Urban sprawl, which is asserted to be carried out for urban growth, is in fact not suitable either for urban growth or rural environments in a real sense. In this sense, since it is carried out in a disorganized and uncontrolled way, it has effects that hinder regional sustainable development [5]. This involves the exchange of open space into various land use purposes, such as housing, building

industrial estates and health centers, for sustainable living purposes. Al-Kheder et al. [6] explain urban-growth modeling using multitemporal satellite images.

2. Urbanization

Urbanization is a metropolitan development that is a response to often less understood implications of technological, economic, social, and political forces and to the physical geography of an area. The pattern of urbanization in India is characterized by a continuous concentration of population and activities in large cities. Kingsley Davis used the term "over-urbanization," "where in urban misery and rural poverty exist side by side with the result that city can hardly be called dynamic" and where inefficient, unproductive informal sector becomes increasingly apparent [7]. Another scholar, Breese, depicts urbanization in India as pseudo urbanization where people arrive in cities not due to urban pull but due to rural push [8].

The considerable economic and livelihood opportunities in urban areas and an increase in accommodating immigrating populations result in greater urbanization. It is never seen as a vulnerability to environmental growth, but it is the accidental urban area and energetic urban growth, or the sprawl that influences the land use of any area that becomes a substance of concern through its habit in the loss of major farming lands. It is very important to study and determine the information and suggestions interrelated with the problem of unexpected urban growth ensuing sprawl.

Urbanization is a global process in which most developing nations experience that has led to the rise of great metropolitans along with slums and squatter. At the same time, a notice concern is also about the exhaustion of natural resources, increasing pollution and environmental hazards apart from the development of urban-rural fringes and suburban divisions, a host of ecological and socioeconomic factors that have become remarkable challenges of the current era. Chandna highlighted these factors [9].

3. Characteristics of urbanizations

Urbanization is a universal phenomenon. It is a process of enrich growth in a country's urban inhabitants accompanied by an even huge development in the financial, political, and cultural importance of cities associated with rural areas. In "The Origin and Growth of Urbanization in the World," Davis explains and gives the world growth of population and the way of urbanization and growth stages.

The term "urbanization" illustrates a development in the human population associated with the development of energy and resource consumption and widespread land use. Since the rise of population becomes more enrich, the need for goods and services is often driven by addition rather than just rapid population growth. Urbanization refers to a growth in the percentage of a population living in urban areas of an exact size.

The rapid growth of the population is a result of the sparing scientific and medical knowledge and is the fundamental reason for urban growth and population. However, the rapid development of the population in urban centers is also disturbed by economic development, which is decreasing the percentage of the population engaged in agricultural areas. Structural change in employment, especially the growth of the tertiary (service) sector, has led to an improved number of employments in urban areas. Most service firms need to be central business districts (CBDs) to obtain benefits from close communication with each other.

4. Central business district

The central business district (CBD) is the main part of the city that contains the major commercial streets and main commercial buildings. Throughout history, the Central Business District has been characterized by land classification and land use changes that include residential, commercial, industrial, and administration purposes. These spatial changes have been used to support Central Business District development. However, in the wake of post war decentralization and the growth popularity of polycentric regions in both Europe and the US, much of this work has itself come under criticism. The main force of the criticism proposes that Central Business Districts are now more likely to practice for the development of suburban lifestyles. However, similar developments, such as core city regeneration, propose that CBDs are now at the heartbeat of a more extensive back to the city movement that (re)promotes the pleasant appearance of city area living through residential expansion, delightful cultural districts, and an urban cool cultural social scene.

The beginning of the 21st century, the Central Business District had turned into a discrete area of the metropolitan city and built-in residencies, retail shops, commercial malls, Central universities, recreational, government, financial institutions, health care centers, and culture centers. The urban area is located at workplaces or educational institutions in the CBD for regular movement. This includes students, doctors, academics, government officials and civil servants, business peoples, formers, and financiers. In the current era, the rapid development of residential expansion and the growth of shopping malls have given a new life to the Central Business District. In addition, multi residential buildings, mega-malls with theaters, Kochi Lulu international shopping mall is an example of a business district area as an entertainment and shopping center. City walk malls are also familiar in central business districts in an attempt to make the CBD a 24 × 7-hour working destination.

5. Migration

Migration is the movement of people from one place to another place for various purposes. Immigrants go away their nation, while migrate peoples enter a country. Migration impacts two nations and places where migrants enter settle. [9] addressed urbanization, migration and economic development and explained the primary stages of urban growth based on the migration of the population and the economic development of a town.

People have so many reasons why they force to move from one nation to another nation. The reasons behind this movement are employment opportunity, economic, education, globalization, and political or environmental condition. Migration is classified as 'push factor' and 'pull factor.' Push factors force people to migrate; for example, unemployment, lack of infrastructure (such as hospital, education institutions, etc.), natural disasters (such as floods, droughts, earthquakes, cyclones, etc.), local conflicts, war, etc. The people get experience of life and move one place which gives them good life. Pull factors attract people from different places, such as better opportunities for education and employment, better health facilities, and various sources of entertainment.

6. Urban sprawl

In India, rapid population growth and migration, greater than before urban population and urbanization, is not predictable. Barnes et al. highlight sprawl

development: its patterns, consequences and measures of particular cities and towns of urbanization [10]. Increasing towns and cities are developed with a change in land use along the national highways, and in the nearby surrounding area of the city, this development occurs outside urban areas such as suburban and urban fringes. Urbanization is a structure of metropolitan city growth that is the reason for social, economic, and political forces and to the physical geography of an area. Some of the reasons for the sprawl contain population growth, urban economy, settlement patterns of infrastructure activities such as the construction of bridges, metal and concrete roads and the provision WiFi using public encouraging development. The direct suggestion of such urban sprawl is the land utilization of the region. Sprawl normally infers some type of expansion with impacts such as loss of farmland, open waste space, and environmentally sensitive habitats. Additionally, sprawl is occasionally equal to the growth of towns or cities. In simple words, as a population in an urban area or a city, the border of the city expands to provide accommodation for growth [11, 12]. This extension is measured as sprawl. Generally, sprawl occurs on the sub-urban area, at the edge of an urban fringe or along the highways [13].

7. Effects, impacts and consequences of urban sprawl

The places of sprawl and the region that is impacted by it are distinct from each other [14]. Urban sprawl takes place at the edge of a town or city, and it might have a direct or indirect force on other parts of the urban area within its administrative boundary or on a nearby city. In general, two adjacent views are taken about the outcome or reflection of sprawl. Urban sprawl may have both positive and negative consequences and impacts; however, negative impacts are often more highlighted, as this is uncontrolled or uncoordinated growth, and eventually, the negative impacts obliterate the positive sides. There are some positive impacts of urban sprawl, such as an increase in economic production, an increase in opportunities for employment, better opportunities and better services creating better living conditions, and better lifestyles. Urban sprawl can extend basic services, infrastructure and social capital, such as transportation, sewer, and water, better educational facilities, and health care facilities, to a larger population. However, since it is an uncontrolled and uncoordinated growth resulting in sprawl, the positive impacts are covered up inviting focus only on the negatives [15].

During the nineteenth and early twentieth centuries, in developed countries, urbanization was created, and it also led to industrialization. The surplus population from the villages was motivated to make a mass movement towards cities because of new job opportunities created there. For the cities too, these migrants provided cheap labor for the newly established factories. Due to the present globalized scenario and opening up of economies, the circumstances are similar in developing countries. The huge concentration of investments in cities attracts a large number of migrants from villages who are looking for employment. This creates a large surplus labor force, and because of this, the wages remain low. Developed and developing nations of the world are different not only in the percentage of people living in urban areas but also in the way in which urban centers are taking place. Most megacities are developing worldwide, urban sprawl is a universal problem, and a significant number of city inhabitants live in slums within the city or in urban centers in poverty and polluted environments. These large settlements are frequently highly polluted due to the shortage of urban sanitation services, including drinking water, drainage, garbage pickup, electricity or paved roads. However, urban areas give life

for poor people with more employment opportunities and better income to renovate their life compared to rural areas.

Some social welfare societies and environmental welfare and helpers claim that for countries such as India with large land areas, there are too large farmlands and open waste spaces to be concerned about how much land is transformed. They also strain the main benefit of sprawl, which is the delegation of employment to various places in urban areas. Most of the urban centers affected by air pollution based on car culture enable people to commute shorter distances at any time and home. Urban areas construct their own buildings or residential villa like better houses. It is not healthy for people to live in areas with increased densities and smaller meter square of space per individual. Therefore, the better suggestion is for those people to live in larger plots with their own green spaces to go away from city centers and work areas.

7.1 Ecological impacts

The percentage of open land space used by each dweller has improved in the last 25 years by two or three times.

7.2 Atmospheric pollution

The level of pollution due to motorcar needs can more easily be connected to population densities. Currently, the peoples use their own vehicles for transportation purposes to avoid common transport facilities, and the percentage of usage has rapidly increased. This kind of activity polluted the environment hour's base movement of vehicles.

7.3 Loss of natural resources

All spread out directly to the loss of a significant partial resource that is land. Over the years, urban sprawl has openly been given to result in the poverty and decline of natural surroundings such as woodlands, swamp and wildlife habits. It has also reduced open land spaces. Natural resource use has increased. Urban Sprawl guides land-use patterns that are adverse to the development of sustainable transport and increases the use of personal cars, which in turn results in greater than before changes, traffic, rapid use in fuel utilization and air smog. It is in general a hazard to the human environment.

7.4 Impacts on ecosystem

In areas where sprawl is not controlled, the concentration of humans in residential and industrial areas of urban sprawl might directly amend urban ecosystem patterns and processes. Urban growth connected with urban sprawl not only reduces the amount of ecosystem, open farmland woodland, and open space. The arrival of urban sprawl into rural areas and land loss may also raise agricultural lands for the purpose of roads, power (tower) lines, and pipelines. This kind of activity disturbs the rural ecosystem.

7.5 Loss of farmland

Urban sprawl and urbanization contribute to the loss of farmlands and open spaces. Only in the United States is urban sprawl predicted to consume 7 million acres of farmland, 7 million acres of environmentally sensitive land, and 5 million acres of other lands during the period 2000–2025. Preferred taxation and land

use policies work in sync to generate economic pressures that force farmers to sale their land to the urban developer. Builders and urban developers are forced to sell land at a low price due to the former economic crises, and the unreasonable prices of farmland often result in far more sales of their land than continuing farming. Additionally, the number of small land parcels of agricultural land is being separated off to create rural residential and industrial development. These small activities guide the loss of a large amount of dynamic farmland each year. The loss of farmland to build up urban sprawl means not only the loss of food sources but also the loss of ecosystems, since farms include plant and animal habitats in woodlots and hedgerows. The presence of farms on the rural landscape provides reimbursement such as green space, urban–rural economic stability, and protection of the traditional rural lifestyle.

7.6 Lessening of the productivity of city

It is an economic theory that productivity is much more enhanced with dense development since ideas move quickly when people are in close proximity. However, when jobs move to the suburbs, people follow them. This may reduce productivity in the city, leading to social loss. In addition, authors state that sprawl leads to creating regional imbalances, such as pulling jobs and people further away from poor communities, increasing inequality. Sprawl also creates segregation of rich and poor or social isolation in general. The problem lies not to the people who have moved to the suburbs but rather to the people who have been left behind. The low-income groups are abandoned in the downtown because they cannot afford a car-based lifestyle. The role of transport technology can explain this social fragmentation. The much congested and deteriorated central towns end up being favorable places for crime and social unrest.

7.7 Increase in temperatures: Creation of urban heat islands

Due to climatic changes, urban regions can have warmer temperatures than urban areas, resulting in urban heat land. The heat land outcome is caused by two reasons. First, dark surfaces such as road networks and building terraces efficiently absorb heat from sunlight and reradiate it as thermal infrared; these dark surfaces can reach temperatures higher than environmental air. Second, urban regions are moderately split of urban vegetation, particularly trees that would provide shadow and fresh air through ecological action. As urban sprawl, the heat land results increase, both in larger geographic extent and in intensity. This is especially true if the urban pattern and features develop extensive tree-cutting and wide road construction. Two decades of urban climate research: a review of turbulence, exchanges of energy and water, and the urban heat island. Satellite multisensor data analysis of urban surface temperatures and land cover.

7.8 Deterioration in the air quality

Atash [12] highlighted the deterioration of urban environments in developing countries. The lifestyle need on automobiles for transportation especially cars forced by sprawl guide to increase in fossil fuel utilization and emissions of greenhouse gases Urban sprawl create to poor air quality by accepting more automobile use, thereby adding more air pollutants such as carbon monoxide, volatile organic carbons, ground-level ozone, carbon dioxide, nitrogen oxides, sulfur dioxide, and microscopic particles. These pollutants can slow plant growth, create air smog and acid rain, cause global warming, and cause serious human health issues.

8. Conclusions

A new growth be it intended or unexpected could begin on waste land or on land that was before used for some other agricultural purpose. In most cases, however, whenever the need arises, it is the outer edge of the city that provides for "boundless" open land because urban areas are usually unbroken. Urban sprawl is a dynamic process. This results in changes and the transformation of urban areas. Urban sprawl means the migration of people from urban rural areas to suburban or urban fringes. It also defined a small village's conversion into a town and city. In India, urban settlement is defined as places having minimum inhabitants of 5000, with at least 75% of male employees being occupied in secondary and tertiary activities, and the density of the population should be 400 inhabitants per sq.km. Urban sprawl means unexpected, uncontrolled spreading of urban growth into rural areas sharing the border with the outer edge of a city. Urban migration and dwellers have changed the urban environment due to the overpopulation. If the population increases the need for transportation and space for living, all other needs to be provided. The overpopulation and development of unexpected urban settlements have risen to change the urban environment. Different situations are observed to cause sprawl. In almost all cases, the rise in population plays a major role as a main cause. Urban sprawl has been recognized as a problematic aspect of metropolitan growth and development worldwide. The growing concern about the issue is shared among planners, policy makers, environmentalists and people in general.

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