

AUTOMOBILE, THE ENGINE OF URBAN EXPANSION

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Abstract. Mans' transportation, moving from one location to the other dates back to pre-historic periods when man was living groups and in caves. They travel at long distances in search of food, and hunting. The mode of transportation then involved consistent walking on their foot. With time, man learned to domesticate animal, at this point, man started using animals to carry himself and his personal items. The use of animals to transport themselves and belongings was made possible with the invention of the wheel. This makes it much easy and convenient for man to move around. As the roads were improved carts, coaches, pulled by animals and wagons with its own engine, this makes traveling much faster at that time. This was followed with the invention of various machines such as the aircraft and steam engines, the locomotive. It was in the 1900's that Henry Ford made the first motor in the United States of America, This makes traveling more faster. This easy will focus on road transportation as it relates or induces urban expansion along with the automobile, the mode of moving goods and services from one location to the other.

INTRODUCTION

The expansion of urban centers started well before the invention and introduction of the automobile on the roads.

However, with the invention of the automobile, it became very clear, the role of the automobile in the process of urban expansion, suburbanization and

increase of urban inhabitants as the main cause. Migration from rural to urban areas and the natural urban population increase are the effects of urban growth.

The automobile's mark on the land went well beyond core cities and their immediate surroundings. While the suburbanization process began well before cars were invented, and the outward thrust of the urban population had many causes, urban sprawl is clearly a phenomenon of the automobile era. The motor vehicle, as one critic stated, "has a various appetite for land". Urban sprawl in Post-World war II America did not follow a clear, consistent pattern of outward development, however, but a kind of leapfrog nature of urban growth " that scattered people, business, and industry over a

broad landscape with substantial patches of vacant or empty land interspersed among tracts of homes, commercial strips along roadsides, and a variety of low-density uses of various types."

Martin V. Melosi.(2010).

Urban expansion is the growth of human populations originating from core urban center to suburbs or communities. This is mainly engineered by the presence of the automobile. Because of the automobile, people can now travel to long distances away from their homes for grocery shopping, entertainment centers, recreation parks, to work, visit friends and relatives at different areas in the metropolis. Before the invention of the automobile, cities were small in size, traveling at that time was limited to very short

distances because of lack effective means of transport system to move people and goods from one location to the other. Because of the introduction of the automobile, roads were constructed and connected enable the car travel to unlimited distances. The roads were expanded, interstate roads were also constructed and connected to major cities. The shape and size of urban area is mainly based on the automobile as available mode of transportation system. With the availability of the automobile, living in the suburbs becomes real, housing demand increased. The urban expansion was partly because of industrialization, factory employment was on the rise, people saw the urban areas as a place for employment opportunities, and therefore, they locate to the cities. The Automobile makes travelling much easier, people that live

outside the urban areas commute to work in the cities.

The world is experiencing rapid urbanization. Between 1950 and 2050 the human population is projected to approximately quadruple and shift from 80% rural to early 80% urban (UN2011). Most of this growth is occurring in developing countries, resulting in approximate 2.2 billion new urban residents in developing countries between 2015 and 2050. How cities accommodate these new residents has huge economic, social and environmental impacts. It is important that urban development policies maximize the benefits and minimize the cost in order to leave a sustainable legacy for future generations. **Todd Liman.(2015).**

The working poor that lack of access to an automobile is one

of the factors that can make finding and holding a job difficult. A person in need of a job may not be able to afford a car, since car ownership is so expensive, but they may need a car because of urban sprawl and inadequate public transit network. Awareness of the nature of urban sprawl and its economic causes and impact appears to have grown rapidly in last few years. This issue has been well known for quite some time, but actual data have been difficult to come by. However, my sources seem to indicate a growing interest in a scientific approach to urban sprawl, including its sources, associated factors and possible solutions. There has been a growing realization that “urban sprawl” must be clearly defined and consistently identifiable. **Creg Colby. (2006). Urban sprawl.**

Urban expansion does not occur in vacuum or just only as a result of rural migration to the cities and the natural population growth of the cities. In developing countries, urban expansion happens as a result of population decrease as well as increase in population, but these urban areas, still, do not experience urban expansion. Some people argue that as a result of economic opportunities and inter connected economics of the world generates urban expansion. And also that available existing interesting land, cost of houses, the need for bigger homes and large yards are significant for individuals. These available needs or desires can significantly attract population growth.

Urban sprawl, also called sprawl or suburban sprawl, the rapid expansion of the

geographic extent of cities and towns, often characterized by low-density residential housing, single-use zoning and increased reliance on the private automobile for transportation. Urban sprawl is caused in part by the need to accommodate a rising urban population.

Alternatives to urban sprawl.

Uncontrolled sprawling development does not occur in all communities. Several communities in Europe and North America have been proactive in combating the effect of urban sprawl. Some have developed urban growth boundaries beyond which construction is prohibited or severely restricted, whereas others limit the influence of urban sprawl through innovative land – use planning techniques or community cooperation.

Smart growth communities.

Among the many alternatives to urban sprawl, nearly all can be placed under the umbrella of “smart growth” or “new urbanism”. Smart growth is a management strategy designed to direct the growth of urban areas, whereas New Urbanism focuses on the physical design of communities to create livable and walkable neighbourhoods. In their own ways, both strategies promote economic growth in cities and towns without many of the typical environmental, economic, and community costs associated with urban sprawl. **John P. Rafferty.(2018).**

Increased global awareness is needed to better understand and plan for this massive expansion of cities in developing countries, Angel says. Local and national governments, civic institutions, international organizations, and concerned citizens must make minimum adequate preparations. For example, it is

vital that cities acquire the right – of – way for arterial roads that can carry public transport and trunk infrastructure and protect selected open spaces from encroachment in advance of the coming expansion. **Shlomo Angel, et al.(2012).**

CONCLUSION

Clearly, urban expansion is an automobile phenomenon. Human being has been walking from one place to the other with his foot as the means of transportation. The human being later engaged animals as means of transportation which helps to move along with his luggage. With the introduction of automobile, backed up with construction of road infrastructural system, transportation of goods and services became easy. At this point, urban centers started to expand, people began to move

away from cities to sub-urban areas. As the urban centers expands, business activities were also on the rise, employment opportunities were more and more available, thereby, attracting people from the rural areas to migrate to urban centers. They migrate to the cities to take advantage of the available economic opportunities that are not existing in the rural setting. The increase in population normally will put pressure on social, economic activities, and environmental issues. What is needed to be done, especially the developing countries, is to emulate the strategies of the western world, they put in place, in combating urban expansion. Limit urban expansion by land use planning, develop urban expansion limitation where the city must not grow beyond, no

construction activities will be allowed. Engage in urban management strategy which directs urban growth.

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