

# Transportation and Sustainable Urban Development

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## Abstract

Civil sector activities are based on parts of which are in accordance with article A of Article 55 of the Civil Development Act of the country in economic, social, and economic capacities. Abstract the physical and indirect city of cities has a direct and significant role in the sustainable development of every city and plays an important role in developing urban development plans. So, the physical and spatial development of residential centers on the national, regional, and local levels must be defined in the form of cultural, economic, social, and even political behaviors. The foundations of the construction and environmental structures of each city were investigated. Therefore, drawing the facts and description of transport and sustainable urban development and developing a qualified emergency is a trivial matter.

Nevertheless, the implications of transport and sustainable development in urban cities and its feasibility the broad gap of thinkers in urban planning. The stability evaluation of industrial processes and energy production methods are simple categories compared to cities' stability. A city consists of a set of physical, historical, economic, and social systems. To assess the city's sustainability, Amaze of complications should be separated and separated from one another. Sustainable transportation means we have to solve the problem so that the disease We are not going to return to the next few years; that is, we should follow a naturally affected pattern by the development of population and city and the development of economic, social. Our city's traffic factors are still responsive to the passenger and load displacements without the traffic problem and by expanding these activities. Transportation is the problem of managing sustainable transportation development impacts on economic efficiency, environmental issues, resource consumption, and user. Social justice and justice are considered, and the reduction of environmental impacts, increasing the efficiency of the transportation system and improving the status of social life It aims at increasing the efficiency and movement of goods, services, and people with minimal access problems that without reorganizing the strategies, Politics and programs

will not be achievable. Social justice and justice are considered, and the reduction of environmental impacts, increasing the transportation system's efficiency and improving social life status. It aims at increasing the efficiency and movement of goods, services, and people with minimal access, which without reorganizing the strategies, Politics and programs won't be achievable.

**Keywords** - sustainable urban development, transportation development, environmental impacts, and the urban transportation system's efficiency.

## I. INTRODUCTION

Goal setting for sustainable development, attention to factors and categories social and economic associated with environment life is inevitable because social conditions unstable leads to an unstable environment. Fritz Perls believe that a city, unstable in population, environmental degradation, ineffective systems, reducing employment opportunities, industrial and service activities, and imbalance the social — demographic composition recognized that loot, too, believes poverty and class inequality, and the loss of opportunities resentment, uncertainty in the future mental they can tolerate it. Resulting in the loss of true norms and norms spirit of tolerance and compassion and collective identity international association of local initiatives new from sustainable development for use locally he's brought it. So, definition, sustainable development of the services environmental and social and economic for all and without any a threat to the persistence and sustainability of natural monopolies, the instrument is social — urban. In cities today, the most important human accumulation centers and development centers for resource consumption are natural. An overview of this resource — generating sources are natural too. The importance of cities as growth engines economic in the world is responsible for the consumption of natural resources. cities to meet the various needs of residents are often beyond basic human needs, Distances even further away than themselves growing naturally. By its role, the importance of cities in sustainable development programs is more attention.



National and international and sustainable development approaches to develop sustainably in their opinion, cities and cities environment and ensuring environmental sustainability habitats. Whatever is important in the sustainable development paradigm, sustainable urban development is also important. Since sustainable development objectives in space and space and within the framework of relationships the interaction between man and nature can be realized, cities infrastructure, spaces, and human societies to help develop development are local, national and global. It was crowded economic development of natural resources, frequency human needs for resource consumption, and the public and private sectors' increasing attention. The progression of urbanization in the world is important because cities are sustainable development.

## II. THE SCOPE OF URBAN DEVELOPMENT

Each city covers a wide range of issues, and these issues are interrelated in terms of necessity. The main point is that the interaction of these issues is one of the factors affecting each city's stability. Approximation for all actions designed and implemented to promote sustainable development, different ideas, and internal and external contradictions emerge. For example, it is possible to prohibit the traffic of vehicles in the center of the city to reduce air pollution in terms of environmental sustainability, but the same action will have negative effects on economic sustainability. Or it may be necessary to do the same from the social sustainability point of view, as the lack of traffic at night could result in the sense of insecurity. The fact is that public spaces are undesirable in today's world, and without resorting to corrective and preventive actions, it will undoubtedly become a crisis in the near future. So, both developed and developing countries need to move toward sustainable management. Therefore, it should be considered the principles and principles of sustainable transportation as the center of future transportation plans.

## III. SUSTAINABLE TRANSPORTATION IS A MUST

A modern city should have an efficient transportation system for communication, accessibility, and communication among different regions. A comprehensive transportation system addresses several problems such as air pollution, noise pollution, isolation of wildlife habitats, traffic, etc. today's societies require a sustainable transportation system to reduce these problems and create an effective and efficient transportation system. The aim of creating a sustainable transportation system is "the most effective and easiest way to move people and vehicles with the lowest energy consumption (in the field of fuel and human effort) with the most acceptable cost, minimum traffic and

minimal effects of environmental pollution and noise pollution.

## IV. METHODS FOR SUSTAINABLE TRANSPORTATION DEVELOPMENT

### A. *Travel Demand Of Management (TDM)*

It is possible to respond to the growing needs of moving in cities in two ways; the first way is to increase the infrastructure's capacity and the second way. The increase in capacity is reasonable and reasonable, but the increase in capacity is impractical and expensive as demand increases. Managerial strategies should be practical, affordable, and consistent with the needs of the people. In planning and comprehensive transportation management, there is a wide range of potential solutions to solve transportation problems, but when all aspects are considered, the management of transportation demand as the best solution and the most cost-effective solution is to reduce pollution load using alternative fuels, car parking, car parking strategies, and effective land-use planning.

### B. *Land Use Planning*

Urban design affects transportation patterns; it is also affected. Inappropriate urban development is one of the main causes of transportation problems in the world. Without planning and uncoordinated cities spread of their population, rapid growth and more people from the city centers move to cities' outskirts. This reduces the access to public transportation facilities, while the high cost of constructing new transit systems prevents the development of public transportation from meeting the new needs. Transportation in the cities of developing countries affects the urban structure and is affected by it. This type of transportation could remain attractive if there were high urban density in proportion to the multipurpose land use pattern. Transportation affects not only land use but also its users. Inner-city trips pattern, especially the distance from life to work, has a fundamental role in transportation planning. Inappropriate spatial distribution of houses, offices, shopping centers, factories, schools, and ... causes many problems. During long distances in heavy traffic and traffic constraints, inner-city is an inappropriate land use planning. Access is a means of solving transport problems by bringing people close to places where they need to go and work, mainly with land use change every day. For example, by encouraging the development of complex land uses, establishing community centers, urban villages with housing, workplaces, shops, and recreational facilities can be achieved. It is no coincidence that developments with small and complex textures can create more interesting and lively places. Turning down the hierarchy of transportation means the highest importance and emphasis on pedestrians, which is the most efficient type of transportation in

relation to energy consumption and contributes to human presence in urban spaces. Bicycle planning should also be on top of the list of priorities, followed by public transport. In this new hierarchy, we need to give the car the lowest priority and remove the car's current subsidies despite hurdles. Political.

### **C. (NMT) NON-Motorized Transport**

Walking and cycling are sustainable transportation methods. All journeys, whether short and long, are accompanied by walking. One love — the loving city, is more humane. Multiple, walking and cycling are the ideal way to travel in the city because there is no air pollution or sound pollution. And the energy required is directly provided by the person, that this method is completely economic and cost less than public transport. Regular assessments, transportation Set your priorities to the use of a personal car These kinds of transportation have numerous interests. Unfortunately, it isn't easy to calculate them. As a result, They have been neglected. Determining the number of non-motorized trips is a problem in a region because most of the studies, the travel and traffic count are not being recorded. Some studies. Do not consider travel forms, and if the count is counted, take on foot trips or bike trips, often less. That includes many short trips, non — jobs, fun, and kids' trips, all of which should be planned. Now, the importance of walking and Cycling in some countries, especially in countries. Have developed and some Asian countries, on top of their urban transportation development programs.

### **D. Use Of Public Transport (BRT & MRT)**

Development and deployment of efficient public transport systems sustainable urban transportation are inevitable. Optimal use of these systems regardless of technology, growth trend stops using personal vehicles' energy consumption and greenhouse gas emissions. No independent and unique option for transit in a city. The best options should be based on terms local and precedence configurations using different technologies, and budget constraints affect the choice option. BRT is one of the significant new phenomena forms of transit and changes traditional views. This system has a high rate of displacement and velocity, positive environmental impacts, flexible operation, possibility private sector partnerships with low cost are BRT. A customer system is a combination of stations, vehicles, planning, and intelligent transportation systems.

### **E. People's Participation**

Regular strategy to achieve sustainability in the first-degree Large segments of society to improve long—term status transportation is a city or district. These groups will then have to explore the specific values and goals that make the city agree for stability. Imprint Successful views and examples in different

parts of the world to achieve a variety of solutions. Create Practical democracy on the regional and regional levels. In turn, It can cause other positive changes. A single method cannot be proposed to achieve this. A collection of policies aimed at opening the process Local decision-making, keeping the processes safe Making decisions from specific influential groups, making choices with literacy and responsible decision-making mechanisms at the level Locals can be helpful.

Public participation in planning and the local design is an important thing, but management with a broad view. Officials at different government levels, from local to central because they have to show that decisions are made on the subjective mindset at any level. It is important. An all-out partnership to address the problems and understand the needs. Low income in transportation planning should be considered the various classes and groups of the community, especially the minority groups. Today in some countries, people's contributions to the design and design sectors transportation in non — official organizations (NGOs) are attracted to a positive reflection in future co-operation Local people have been involved in the performances. An important issue for developing countries is that improving the transportation system is available with limited resources to avoid excessive use of land and other resources. Policy-makers need to be aware that solutions are used in developed countries' cities; they cannot be used directly in developing countries' urban areas. They can and must from the developed countries' experiences to use, but this means applying solutions without the study and investigation of the conditions are not available. These countries are also There must be reciprocal relationships between the different urban development processes. And put their effects into effect. The expression of problems alone can't be going to be very effective because the city's transportation system has a complex nature, and the most common concept of sustainable development is a development that, in addition to the current needs, is accountable, the capabilities of future generations to respond to Their wants and demands are compromised. Still, Winter claims to be more than 200 Sustainable development exists. The concept of sustainable development is now so exposed to diverse interpretations that the lack of a firm framework and public acceptance of scientific views is the main problem in this regard that has been tried to analyze.

### **F. Local Acceptance**

Officials may consider action for sustainable development, but they have no other opinion no authority. This especially in the current political atmosphere that gives priority to the market economy. The dense city would be stable if it could. Accordingly, the united nations' environment program sustainable ecosystem system capacity is defined. In recent experiences, there is little hope for

the acceptance of the dense city. Norway studies done by Nas that concentrated urban development, including its specifications low — area housing and restrictions on car traffic is a person, policies for restricting individual freedom count. More dense city fans argue that it was easy to spread the number of households in their homes for small, dense, and small houses cultural and cultural facilities of the city center., because of the continuous change of living and living standards and changing people's expectations, the more complicated local acceptance problem. Hence, the dynamics of factors and their effect on development sustainability is one of the important points.

### **G. Social Justice**

The society of the friends of the Earth, four principles of sustainable development emphasize that many others also advocate the theory. Though all the researchers about the meaning and concept of social justice many discussions are ongoing, the public it is believed that social justice is directed to distributional policies or Executive deprived and deprived of natural gifts to stress social justice, in terms of risk ironically increasing the distance between the crowds from the advantages, to environmental sustainability it's important. This is a bare fact that privation poverty is one of the most important environmental degradation factors and depletion of natural resources.

### **H. Sustainable Development Levels**

The sustainability of a city at different levels — from a street-can be checked into a quarter of a neighborhood or a whole city. According to the opinion “Works of Resource Consumption and Pollution of a City Alone,” The surrounding villages are not limited, because the metabolism of cities so that important works on the global environment instead leaves the balance between stability and stability. At different levels, or between strategic and local goals, of course. Loynz believes that “no place should be based on Its absolute characteristics should be evaluated. For example, the national level should be compared only with the criteria, but every location should be in the city's text. Related to biological species and how the local population 's accesses are considered to be evaluated.” Moreover, the designed and implemented measures for a particular local 'sustainability' are negative impacts elsewhere. So, the monitoring of urban sustainability should not only work Report on the city and more from the strategic point of view, but the effects of every action must be made in the region's area in the global dimension.

## **V. THE COMPLEXITY OF CITY'S CONCEPT**

Carrying out the sustainable city concept through compact Buildings is among the things you need to achieve. Sustainable cities have been proposed. In the previous chapter, the complexity of the city's stability

was noted, so in this way, much of the complexity of the city's conceptual complexity the density is confined. In connection with the assessment of the possibility of achieving Stability through compression of the following:

### **A. Variation of Densely Populated City's Figures**

The densely populated city can be defined in different species because these cities are not heterogeneous. Setting up One The densely populated city can be constructed through increasing building density, the change in the form of construction, or through increasing the concentration of activities, becomes practical. Each of these processes is preceded by primacy. Infinite in categories. For example, 1) increase Density can be through the redevelopment of existing urban land, New development on free land, continuous development, or renewal 2) Increasing the concentration of activities can result in a result. Increasing numbers of residents, practitioners, or visitors from one another. The urban area, or the increase in traffic in particular areas or by using more land and buildings to come up with.

Moreover, each type of increase in compression a building with special features, so that each one is the type of design, and the operational scale of direct relational. Increasing the density from time — scale perspective is different too, and it can be long, short, short, staging, and gradual. Increasing the density of cities by each of these policies. Is a different kind of city — intensive city. Nevertheless, the theory and thought of the city of density can be applied to different action forms. In this case, each of its forms of Stability criteria mentioned in the previous discussion will have a different situation. For example, the assumption is dominant. Compared to increasing the city's population density, the intensity of activities has more negative effects, especially if the density of activities. This led to an increase in non-local traffic. In front of (open), preserving the abandoned land or the development operations in line with improvement or replacement ruined buildings is being made positive. It is acceptable.

Meanwhile, people in front of the project micro-scale, supplementary, and projects that are less noticeable. The effects of negative resistance show less. And so, it must be the diversity and diversity of the densely populated city acknowledged.

### **B. Requirements for Dense Regions**

Characteristics of areas where density increases another factor influencing compaction and increasing compaction. Characteristics of each region include social and biological characteristics of its environment. For example, urban development and increase in density qualified areas can be considered the (environment) perspective is considered unstable. Versus growing density in areas with wasteland and wasteland can improve the situation and promote its

economy. Affluent areas of the city reduce the value of the property and local utility losses of doing developmental measures and increasing compaction so, the most resistance to congestion increase policies show themselves. Based on a poll in Perth, Australia proved to be close to the center city confirms residents increases. The survey also showed that the opinion younger residents are more positive about the actions. In other words, the opinions expressed in this survey indicate the diversity of behaviors against urban congestion. Accordingly, survey researchers reported that in the ranges a good place among certain people, it can face public acceptance and acceptance on more density.

### **C. The Limit of Increasing Density**

It is always possible that a certain type of action development or its implementation is stable, but it must be noted that this is not without bounds. Sustainable development strategies in the UK to urban planners' alert limits to development in areas built to avoid memory local utility is essential, so in part development measures to increase congestion can be sustained that limit. However, we can measure to adopt public acceptance or sustainability more absorption of developmental measures promoted to a higher level. For example, an increase in density of residential units a special pressure on electricity supply networks, water, gas or sewage of the region, but if more advanced technologies to increase network capacity if applied, it is always possible to obtain he followed further development measures. So, increasing compaction is dynamic, but it is very important to know the limits and thresholds for high-density cities' stability.

### **D. Exogenous Factors**

The exogenous factors also affect the intensity of congestion — intensive cities. The effects of these factors are exogenous, and the density, in the formation of a wide range of actions city's development also is effective. For example, policies and urban management can be effective in shaping urban cities. The management system can play an active role in resolving disagreements and conflicts inherent in development efforts to increase the concentration of active role, or that local authorities can provide the ground for admission to other open spaces by enhancing the quality of public spaces and access to available free spaces. Some several other forces and processes can be effective in the feasibility and stability of crowded cities:

- A) reduction in factory industry activity.
- B) the suburbs versus focusing.
- C) new economic locations and activities.
- D) technological change.

## **VI. CREATE THE MANAGEMENT REQUIRED FOR THE CONGESTED CITY**

Local planning authority needs to be able to evaluate urban development efforts from a stable perspective while providing guidance that leads to the most stable urban forms, and authorities should know which of the increasing population density and intensity of land use are the highest sustainable for particular sites and which of policies have negative effects on sustainable urban development. Moreover, they should know the extent and boundaries of development action accurately, which means that they should have a way to determine each location's density capacity. The comparative comparison of research that has driven the densely populated city to critique can be evidence. It should be noted that the implementation of successful species will increase the density in certain cities or regions of the cities, but it must be noted that this evidence does not typically have the clarity and transparency necessary to apply in all circumstances. This is why assessment of each action along with continuous evaluation is one of the most important tools.

## **VI. CONCLUSION**

In this article, we discuss the problem of urban sustainability to some extent, and it has been shown that the problem consists of a wide range of issues that not only do not interact in different levels but also affect different parts of the population. It should be possible to use practical aspects and theoretically be useful. How to meet high — density expectations in the city was a complicated problem, a part of its response should be sought in the relationship between the form of city and the location of increasing densities, the range of densities and policies, management, and other political, social-economic backgrounds. Studies and research in crowded cities, and even more, sustainable development research have many branches and branches. High — rise city debate sustainable development is not defensible. So, placing this discussion within the broader research framework, the subject is of importance. There is no doubt that teaching and discussing in this field is the main axis of understanding these issues. To make a more sustainable future, the Earth depends on global cooperation. It is an essential part of science in the field of science. So, in the present era, Characteristics of the postmodern world. However, to achieve more success, further expansion of dialogue and dialogue with sustainability issues, it is necessary to increase the efficiency of conversations and exchange of information, create a shared language and shared definitions for sustainability goals it is necessary for the absence of understanding the common and acceptable solution is virtually impossible. It is said that there is no simple solution for complex problems. That's why he has begun an investigation into the city of congestion dealing with complications. However, more research has to be

done in this regard, and, more importantly, the research needs to be more consistent with each other and more fully structured. The debate problem cannot be simplified, or it is hoping that it will be resolved automatically. But if research works better than the problem, one can hope to approach urban sustainability. If we find politics as impossible as possible, we need to call the research art of expression and problem-solving.

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#### REFERENCES

- [1] Hasan Zadeh, Reza, investigates Kerman city's conditions and geological issues using information system geographic thesis: masters degree, Shahid Beheshti University Kerman, (2006).
- [2] Khazaie, Ismail, the impact of urban expansion on water quality Underground, water and sewage, 3(7),(2001).Plane 3
- [3] Rohani, Narges, environmental management expert Tehran University of Tehran.
- [4] Tarsaie, Zohreh, in the Hamshahri Newspaper.
- [5] Abadi, Ali, geography, and planning of Kerman City, Kerman Centre Press, (1991).
- [6] Manager of state planning, population census,( 2010).
- [7] Salahshoor, Jamshid, The Impact of urbanism on hydrology cycle, Chapter 19, 1381, 19,77–78.
- [8] Mahan Alavi Civil Engineering Company, The environmental impact assessment of the seven gardens — seven sky, 3,1378,
- [9] Journal of Water Resources Studies, Kerman, Design Investigation of the geology, (2006).
- [10] Consulting engineers of water and sustainable development, hydrology report of Kerman — Baghein study, water stock company, (2006).
- [11] Dr. Kavita, Dr. M. Anji Reddy, Geospatial Database Creation for Town Planning Using Satellite Data under GIS Environment SSRG International Journal of Civil Engineering 4(6) (2017) 98-102.