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**A MODEL FOR THE DESIGN OF SUSTAINABLE TRANSPORT IN THE NEIGHBORHOOD
(CASE STUDY: SHAHRABI NEIGHBORHOOD OF TEHRAN)**

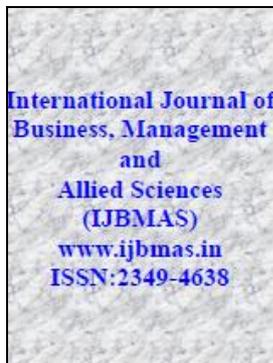
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ABSTRACT

Appropriate approach in urban planning as an engine and Guide political force, various and effective elements in sustainable development situation is balanced towards each other. If it is sustainability as principle, appropriate approach in urban planning as has been act; these are together aspects of an appropriate urban development. Transportation planning is part of planning in city that along with other parts of the land use planning, makes up urban planning. Methodology in this research is a descriptive – analytical. for mapping is used of GIS software. Data collection have been conducted base on field and library studies. The results of this research through neighborhood of Tehran shahrabi case study and outlining the desirable position of neighborhood land use indicates that many features neighborhood is relate with urban transportation like availability of urban services and facilities, clean environment, less noise and air pollution, pedestrian travel, reduce the cost of fossil fuels, reduced use of private vehicles and thus promote social interaction can be facilitated in order to attain city sustainable development.

Keywords: Urban planning, Transport planning, Sustainable transport, Tehran city, Shahrabi neighborhood.

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INTRODUCTION

A quarter of the World Bank report and other studies show that level of urbanization is closely related to economic development means higher economic development a country is associated with a higher urbanization and to achieve developed, countries should follow the urbanization process (Cheema 1993 ； Rojas 1995 ； Smith 1975 ； World Bank 1990,1991).Metropolitan growth process due to rapid urbanization, is

created many problems such as traffic and urban transportation system dysfunction. The city is a complex dynamic system is that constantly numerous factors influence it. For this reason, urban management still have not reached an agreement on the theory that covers all aspects of the city and each of these theories have covered certain sections of the urban system(Branch,1970;Foot, 1981 ; MC Loughlin, 1969; Smith,1975).Urban transport as part of the urban system, has been one of the major challenges facing urban planning in late twentieth century that is affected the achievement of sustainable urban development. While, one of features and characteristics of the desirable urban environment is easy , fast and reliable access of citizens to various parts of the city and profiting from various land uses in the city. Thus the relationship between transport planning and urban planning is crucial from the perspective of contemporary urban management.

Many features of cities that is relate with urban transportation like availability of urban services and facilities, clean environment, less noise and air pollution, pedestrian travel, reduce the cost of fossil fuels, reduced use of private vehicles and thus promote social interaction can be facilitated in order to attain city sustainable development.

Despite the clarity and similarity of problems in many cities in the world but does not exist a common paradigm in sustainable urban transport. Different opinions about the transportation caused by different approaches to urban infrastructure, environmental exploitation and development of the city(Commonwealth of Australia, 1992; Breheny, 1995; Jenks et al, 1996;de Roo and Miller, 2000;Bruegmann, 2006).

From this perspective is concerned two theory about the sustainable development and urban transport. The first theory to explain the idea that through the use of public transportation systems and mixed use causes efficiency of activities distribution within the city and optimize the use of urban infrastructure(EUEG, 2004). Urban development policies in many cities such as Amsterdam(As a pioneer of compact urban development), Hamburg and Copenhagen is in order to compact urban development(Sheurer,2007). That have been successful about reduce of energy consumption and pollution, expand walking and public transport and increased social interaction and vitality. In this idea is goal to develop a way of life in which the needs of people fulfilled with public transport of education, entertainment and shopping centers of neighborhood and the city (Llewelyn Davies, 2003).

In contrast Were used theory of dispersal urban that it theorists support of the cities of America, Australia and Canada and supporters are of the capitalists and consumer industries and automobile industrialists. This Group believes that with the land use of separate, increase of green space can be achieved to sustainable urban form(masnavi, 2002: 91). In this theory has emphasized the use of private transport. Rapid and all-round expand the city in the suburbs, in addition to eliminates valuable lands increase transportation problems has costs and other negative impact on people's lives. in developing countries are often living on the margins of cities is as well meaning of life on the margins of urban society. Usually the private sector misuses of government weak control and supervision and using cheap areas and informal settlements to collect profits and capital. One of the problems biggest in marginal sector is deficiency infrastructure that of the city or the metropolitan area force to provide for them the infrastructure. Construction at long distances of city and leaving vacant land in it is to private developers very profitable. With this method, the value of vacant land in two built sector are increases and more money goes into their pockets. Informal settlements fills This gaps. form of construction in this sectors is different : Or low-lying houses are with low quality or construction with the high density are that have been limited due to the topography of the land(Hoseinioon; 2006: 12).

The widespread form of the city may not be infrastructure, transport or any required other service of this development. few rich individuals that go to margins for their own Create golden cage. But they have to endure long distances. There is not much choice for the poor. They will have to assume social isolation, environment unfavorable conditions, high pollution, transport inefficiency and high crime rates(Hoseinioon; 2006: 12-13). According to (Williams. K. Burton, E.and Jenks, M. 2000) of the widespread city will follow this consequences:

- Increase public spending due to the transport infrastructure;
- Increased cost arising from purchase on private cars;
- expand individualistic way of life;

- destruction of agricultural lands and open spaces around the city;
- Increased use of fossil fuels;
- expand of air and noise pollution.

Many definitions presented of sustainable transportation but as simple as sustainable transportation could be defined Such: "present transportation needs provide without compromising the ability of future generations to meet these needs."

But this concept is another broad aspects. Centre for Sustainable Transportation (1998) sustainable transport system defines as: "to meet the basic needs of individuals and communities in a way that human health and ecosystem wellbeing and consider justice between generations and between generations ." Finally Transportation Association of Canada (1993) Sustainable urban transport system is defined as:

1. A system in which the creation and accumulation of waste in the area according to the absorption power has been and is strengthening the use of renewable resources, recyclable components and minimum consumption of land.
2. System that providing equitable access for people and goods that step In order to achieve the health and quality of life without loss in any generation.
3. System that has been function with efficiency maximum and it financial costs of be providing.

Tehran city a few decades ago was a kind of stability and relative social stability. with the arrival of new immigrants and to follow not pre-planned program causing uneven changes for attracting the multitudes population. The effects of this can be seen in the physical and content aspects of Tehran Such as unbalanced physical development, marginalization, civil society of bipolar, lack of urban infrastructure commensurate with the population and social ills. One of the most effects of these unbalanced changes will be visible in transportation of Tehran. Freedom of residents of the neighborhood of houses Upper limit and extend in the neighborhood and increase the relationship between individuals with social and environment .

Research Methodology

Considering the nature of the object and purpose of the research, methodology of the study is descriptive analytical. In addition to the picture of the current situation has been investigated to describe and explain the reasons why and the magnitude of the problem. Introduction and the problem that it contains provides spatial context for the case study of Tehran neighborhood Shahrabi because of transportation problems there was due to instability in the neighborhood. The method of collecting data and information in the the library and direct observation of the study area. In this study after identifying current situation in terms of transport is drawn the status of proposed use the neighborhood. So identification and analysis of the transport situation in Shahrabi neighborhood and the ideal situation constitutes the framework for this research. Also mapping is done through GIS software.

findings:

Before the 1920 Iranian city space was physical manifestation of Iranian-Islamic culture. Despite changes in structure of Europe cities takes place during several centuries but the Iranian government few decades sought to quickly make changes. Tehran city with low history compared to other historical cities in such a accelerated extended and major changes occurred in the structure and its internal content. And acted as the dominant city and bridge with the outside world. At first hope was to spread economic impact and spatial balance but because of the flood of immigration in hopes of employment and a better life there was wide and variety social changes in Tehran. physical changes of Tehran city's began with Cut of non-normative old texture for build roads for car. The modernization destroyed the traditional form of Tehran. Fences and gates of the city were all destroyed. city in the streets find a new face. New checkerboard street grid of the city was replacing the old town irregular plan.

Shahrabi neighborhood is a neighborhood in Region 14 in Tehran. This neighborhood is located in the south of plaza 13th of Aban in East Tehran. Shahrabi neighborhood as part of the of Tehran system is a set of apartments and chess street that not indicated the Iranian city of the past and not the actual model of the modern city. The appearance of this neighborhood is as well as non-organic and in the it design have been neglected to cultural heritage and local history. In this neighborhood dominated by the roadway on foot making neighborhood no communal spaces and traditional. Unfortunately in general the neighborhood

landscape has changed because of the density of stores in recent years and the expansion of unregulated constructions. Constructions that led to the removal of mixed uses and residential districts only and extend the lifestyle of apartment and individualism (be noted Figure 1).

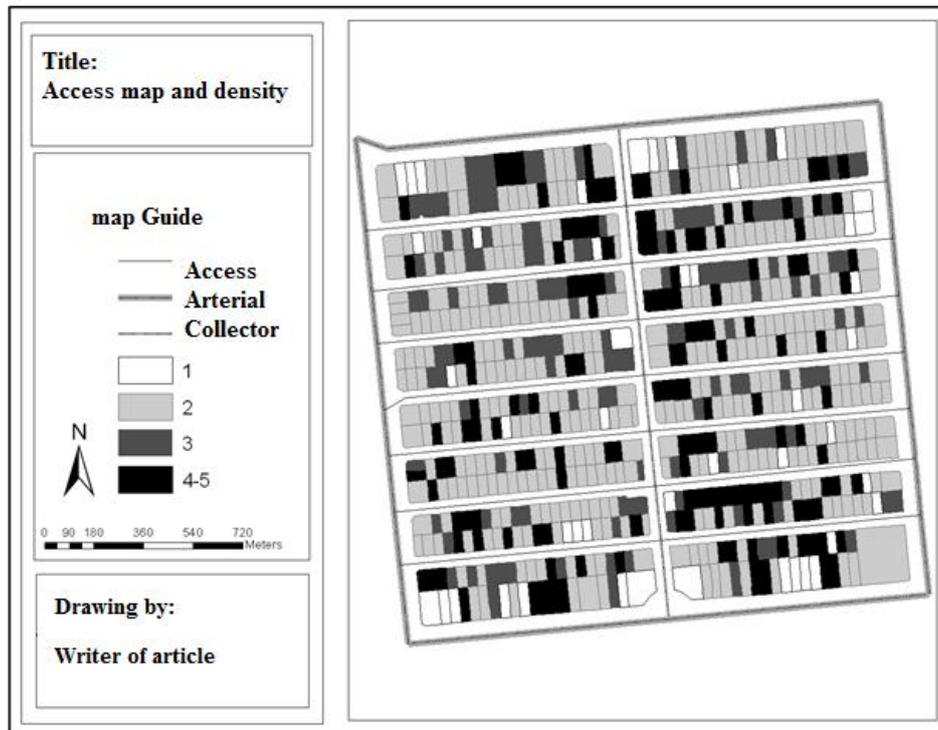


Figure 1. The access type and density in the neighborhood of Tehran Shahrabi

Proximity to main arteries causing a lot of trips passing from within neighborhood due to lack of policies of limiting personal transportation. passing role of Shahrabi neighborhood on the one hand led to the air and noise pollution and other causes to entrance repeated by unknown people in neighborhood and the lack of safety of children and in general discomfort of the people of neighborhood. Streets and alleys of the neighborhood is merely passing and is not considered as a public space for residents of the neighborhood. Actually Shahrabi neighborhood away from social functions has become a place for the traffic performance and social performance streets and alleys have been altered in passing or car parking (be noted Figure 2). So walking have a very role weak in the spatial organization of neighborhood.



Figure 2. Change the social function in the street to traffic function in Shahrabi neighborhood of Tehran
in the neighborhood of Shahrabi separation between commercial and residential land uses lead to have been the non-availability services. This separation of land uses encourage will be neighborhood people to use

private cars. Lack of necessary conditions for the healthy practices such as walking and cycling has caused reduced social interaction and thus the spread of individualism in the neighborhood of Shahrabi. While our cities have not been like this. Iranian traditional cities tissue that represents community of homogeneous extensive relationships among individuals and physical appearance of the city was consistent on dialogue places. The center of a neighborhood was physical-spatial aspects of social relations that occurred naturally.

DISCUSSION

Cities as the main cause of environmental degradation and destruction of the resources are that have gone further from capacities of environmental and environment influenced. However cities are the driving force of the economy and a large part of its population lives in developing countries. Cities may have problems but are not necessarily a problem (Hosinioon; 2006: 12). As Mitlin and Setroit (1996) have stated Problems caused by the failure of planning in cities which leads to will be functioning of urban inefficiently, Not because of the location and characteristics of the city (Quoted from Hosinioon; 2006: 12).

Urban transport planning is not separate from other aspects of urban planning, But also there is between different parts of the planning a correlation and interaction. Part of urban planning is urban transport planning which along with other parts of land use form urban planning. Mixed land use pattern by reducing distances makes reduce the costs of fossil fuels and decreases the need to taking the long distances through personal vehicle. This pattern of land use by facilitating access through implementation for citizens makes social interaction Increase and meeting face to face for people and by defining some of functioning of commercial, administrative, service, entertainment can increase social sustainability in urban areas.

In this study believe that executive assurance for access to transport sustainable development strategy is that combined planning of land use and transportation needs. Thus in desirable land use of the proposed is considered a neighborhood center with mixed use with respect to pedestrian access all of individuals neighborhood. Thus community center is considered of social and public focal point of Shahrabi neighborhood. Function and development of this center is not only separated from other community needs but people will be able to be present in there for spiritual and social goals. Service spaces and daily necessities of citizens is located to be familiar leisure activities by current plans of life. the same diversity of land use will be the richness factor the identity of the place. Also community center can be multi-functional space for daily life and ritual and religious ceremonies in which people regain their origins. In ideal situation some community passes have been Furnish as a platform for the development of public space walking and is prohibited of the movement of private cars inside it and parking can be built in the the periphery of community (noted to Figure 3).

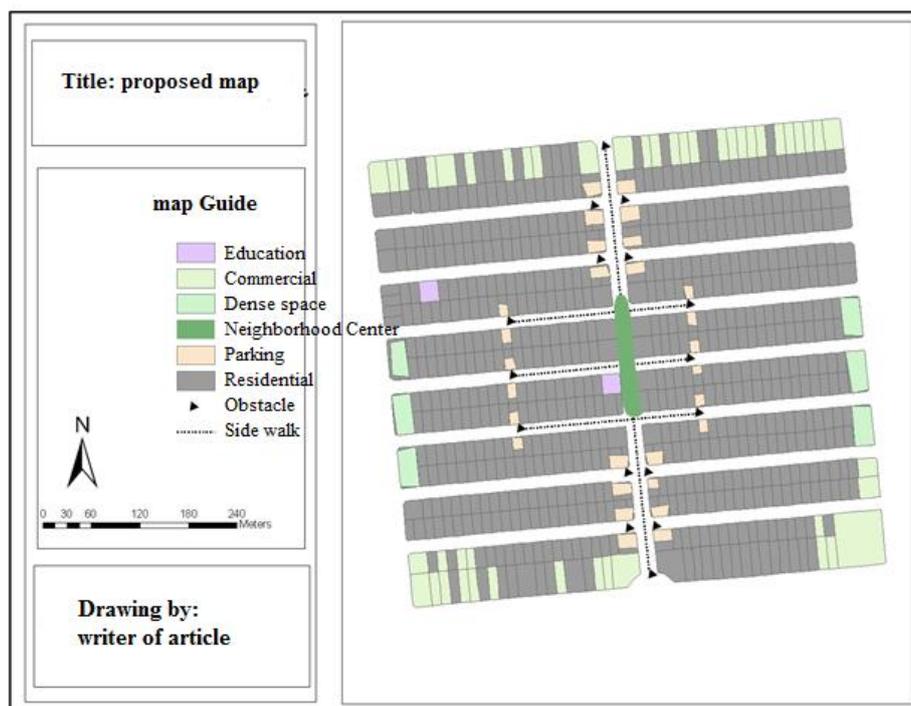


Figure 3. The proposed land use in the neighborhood of Shahrabi of Tehran

Walking promoting causes increased walking and appropriate to environment and reduces demand for road and transportation system of engine. Aimed at enhancing environmental quality of the the streets space that is priority with pedestrian that walking is an attractive choice for citizens. Cycling is part of the urban transport system that is of the type trips are safe and appropriate to environment that for sustainable development can be best accomplishment at the local and municipal programs. Parking is an important part of the the transport infrastructure. For this parking can act as a solution to reduce community traffic must be properly planned and controlled. proposed planning method for the neighborhood of Shahrabi is as parkings on the side or out of the internal tissues of community that social function of community to be strengthened rather than traffic performance.

In this regard, an important question is raised that it clear is considered considerable progress. Is neighborhoods transport planning separately is capable to provide the sustainable development of transport in the city of Tehran? Undoubtedly the answer to this question would be negative. In other words people's lives are not limited to scale neighborhood and planning for sustainable transport must be integrated and systematic that be included the smallest scale (neighborhood) and the scale of the district, region and the city. in the system of integrated transport are linked the bus terminals in urban, suburban, metro and train stations, major shopping and leisure reasonably. It is in the long term may help to reduce urban trips and eliminates many of them in the cities. It is obvious that urban integrated transport planning and land use in the city can be with intelligently distribution and optimization of land use in the city and the location of economic activity, employment, education, access to administrative and shopping in the city.in reality with the shortest route and spend less time and energy as possible are achievable in residential neighborhoods on foot scale.

Conclusion

Some patterns of urban development and human activities lead to the disorder of environmental and the remnants of the human race and the sustainability of life on the planet is faced With serious threats. Urban traffic one of important and influential element in the stability of the city. Despite the clarity and similarity of problems in many cities around the globe but still have not common paradigm for solving these problems.

Nowadays development and equipping of streets has become one of of the important issues of sustainable development which play a vital role in improving the quality of the environment and protection of natural and social values the city. In the absence of streets as public space in the country is our home as "the four walls is voluntary " of our and out of the house full of people who are our enemies or our independent community annoying. Perhaps this is the nature of individualism in modern architecture had penetrated our cities and towns: our building is independently bearable building but each building is inconsistent and uneven with other buildings. In other words buildings also can not be a society. Thus them collection not create is not a city -that is a breeding ground for civil society- but also are spreading heart-rending image in front of eyes and if it was not the green of trees whether terribly space made us. No wonder that the streets of our cities are just beautiful at night and in the darkness(azimi, 1999, Introduction: 9). In the proposed situation for the neighborhood Shahrabi try to be confronted With such a situation. In the proposed situation, sidewalks system that the center of neighborhood is placed in conjuncture can facilitate citizens' access to services. Sidewalks and paths equipped with bike will lead the social dimension of the neighborhood Shahrabi towards sustainability; because people can have a greater presence in urban spaces and streets that increase communications and appointments. Keep the car within the neighborhood of environmentally reduced sound and air pollution and also increases neighborhood safety for children.

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