

Geographic analysis on the role of bicycles in sustainable transport system in Isfahan city

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Extended abstract

1- Introduction

Isfahan due to inappropriate location of industrial centers, has excessive air pollution. According to EPA announcement, Isfahan is the second pollution city after Tehran. Isfahan had gardens and green spaces in the east and in the Safavid period, they paid more attention to the importance of green space and its role in the beautiful city and people health than any other period (Mojtahedi, 1379: 4). But today with creation of industrial complexes and lack of proper planning, it not only has its past glory and beauty but also faces severe environmental pollution but.

Unfortunately, in recent years, Isfahan, with all these advantages is developing thoroughfares, streets and highways in accordance with a automobile oriented function and has paid less attention to pedestrian places, bike paths and green rouds.

Of course, Isfahan urban management efforts in promoting cycling should not be avoided because, in recent years, promoting cycling in Isfahan has been considered seriously to the extent of increasing bike stops three times as much as now. This article attempts to describe the situation and position of the bicycle transportation system in Isfahan using statistical methods and questionnaire.

2- Theoretical Bases

2-1- A bicycle is a light vehicle with two wheels that moves with the power of the leg muscles and has a wide variety. This means has indispensable role in the development of tourism activities, increasing the value of urban land and occupation of less space, increasing employment and local business (Gozar Rah Consulting Engineers, 1384: 29).

2-2- Special Bike Path (Green Roads): The linear open spaces formed along natural or artificial factors and generally any direction in the city and suburbs which is dedicated to pedestrian and bicycle and is environmentally appropriate, are called green road and

are used to link together, urban hotspots such as shops, public transportation stations, schools, factories, parks and suburban landscapes are linked. Thus, a person can walk or bike in complete security, these spaces and, (Soleimani, 1381: 13)

2-3- Historical usages of bicycles: Bicycle usage in Iran was before World War II. But because of its limited number, it was an expensive device that only some people could use it. After World War II, imports of bicycles increased and the prices also declined. Even in some cities, especial bike paths were built in the streets. So except for a limited period at the beginning, bike was not a means of luxury and leisure. With rapid increase in the number of cars in 1350s, lack of safety for cyclists and paying less attention to it in planning, its importance was reduced (Gharib, 1383, 20).

Although in many of the world's major cities, especial paths have been considered for bicycling and walking, but in most streets in cities of Iran, expanding the number of cars, increase of the speed of urban traffic, lack of attention to the role of human-oriented spaces and interactive spaces have caused severe reduction of bike using. However, in recent years, with increasing fuel prices and growing environmental pollution, some activities have been done in this area in some cities.

3- Discussion

Suitable topographic conditions of Isfahan, its appropriate climate and cultural structure of the citizens are some factors which resulted in designing special bicycle routes in Isfahan in the past. So that about 6 km of special bicycle routes, and in Chahar Bagh Bala Chahar Bagh Khajoo and Chahar Bagh Abbasi

was designed in the early entry device to Iran.

Table a and annex of this corresponding graph shows that nowadays the rate of bicycle trips in Isfahan is, only 8.36 percent while this rate has been twice as much in the past. Personal transportation holds the highest share of 31.33 percent of urban trips in Isfahan today allocated to data.

4- Conclusion

According to the analysis done, the following results can be extracted:

- Development of highways and wide streets has caused disorganization of the skeletal system and the social life of urban communities while giving quality to urban spaces has been less considered.
- Urban highways have caused increase in speed and this speed leads to reduction of human vision, background vagueness, weakening of space perception and reduction of perception of the urban landscape details (Hosseini and Razaghi Asl, 1387, 5)
- Highways and thoroughfares increase speed and finally reduce the safety factor of pedestrians and for cyclists.
- Rate of urban trips by bicycle in the city of Isfahan is very limited.
- The bike in the city of Isfahan is not considered as a means of public transportation as much as is looked at as a means of entertainment and sport.
- Lack of special and suitable parking for bikes in Isfahan
- Lack of necessary cultural infrastructure for using bicycles
- Unsafe streets and thoroughfares of the city for using bicycles.
- Insufficient number of available stations for bicycles in sufficient services:
- Lack of participation of other organizations in the field of urban culture

and advertising for making use of bicycles in Isfahan

- In possibility of using bikes for women and people under 18 years in Esfahan

5- Suggestions

5-1- Appropriate physical structures of cities and streets.

The image. Shows poor design of urban streets for bicycles. Obviously, most urban areas are not appropriate for bicycles.

5-2- Making electrical and physical connection between the bicycles stations in Isfahan;

5-3- Designing suitable bicycle parking in Isfahan;

5-4- Increasing the number of bike stations in the city spread all over the city coverage in the entire city to create

5-5- Designing an appropriate kind of bike for women and people under 18;

5-6- serious participation in municipal organizations encourage employees to use bicycles in Isfahan

5-7- Developing green roads and especial paths for pedestrians and bikes in cities;

5-8- Making use of correct patterns of the leading countries in the use of bicycles.

Keywords: Bicycle, Special path for bike and pedestrian (Green Road), sustainable urban transportation, Isfahan

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