

## **Evaluation of criteria for service and tourism centers and providing optimal pattern (City of Damghan)**

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### **Abstract**

*From the beginning of creation, human has considered to the move and travel. Getting food, water, security were basic human motivations for mobility and travel, but after the provision of basic human needs, thoughts of traveling for fun, enjoyment and discovering new places have begun. At the present time factors such as population growth, increasing urbanization and the problems of urban life, growth and development of communications and technology and transportation, as well as rising incomes and increased leisure time, all have provided the context to travel and tourism for the people. Transportation system has been one of the most basic economic infrastructures and in other words it is a connecting main factor of different economic parts. The power of transfer of various economic factors with maximum efficiency and effectiveness is an excellent goal which is hidden at the heart of such system and expresses its importance. Providing welfare services on intercity roads in the form of integrated services, welfare complex in the city of Damghan, is one of the needs that can be investigated in terms of different physical, economic, social, environmental aspects. In this regard, it has been a few years now that master plan for locating service and tourism centers in Iran and studied province has been adopted based on which nearly 500 places have been considered for the establishment of these complexes. Such complexes are constructed to provide required services to passengers, drivers and vehicles on the sidelines of road. In this way, the purpose of such complex in the city of Damghan, is a place built at the edge of the road to provide the services required by passersby. In this thesis, we look at the reasons and philosophy of the need for caravansary which was the urgent need of caravans and their people to be supported during their trip and we consider their role in transportation in their own time. The aim of this review is to achieve results such as sustainable regional development and growth and regional balance, by organizing integrated service complexes in the city of Damghan.*

**Keywords:** *Ribat, lean-to (covered passage), tourism, service centers, welfare centers, sustainable development.*

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### **Introduction**

Goods and passenger transportation can be fulfilled in different ways. There would be always provided services along roads that are known as auxiliary facilities of the roads. As stated before, these are services and facilities have been constructed by the private and public sectors in the vicinity of rural roads to provide welfare, health, commercial, medical, transportation services. these facilities have a wide range and include tourism centers, police stations and other related buildings. It should be noted that roads and relevant supporting installations in Iran's economy have been known and used from the past. However, what is certain is that the Iranian civilization used roads and such facilities, and experienced them in a form of "caravansary. However, studying the structure and performance of such phenomena (Caravansary) are useful to use as alternative plans which are called welfare tourism complex.

These complexes are subsets of auxiliary facilities of roads. And every passenger or vehicle seeks support on the way so it leads him to reach the goal. With the establishment of the road transport system in the last few years, providing such services in the form of restaurants and places divided along roads have been emerged that not only not provide essential services but also because they were seeking a one-sided interests of property owners, even failed the minimum safety-hygiene standards. Sometimes it is heard on the news that passengers or drivers have made complaints about costs and damages caused and demanded an investigation by the competent authorities.

Traditional types of supporting facilities had problems and deficiencies in prior studies such as unsystematically dispersion, sometimes the wrong location, mismatch of volume of users with the confirmed capacity of existing facilities, non-compliance with environmental problems (particularly health), problems of monitoring and controlling locations, deficiencies and inefficiencies in the provision of services at the roads and inefficiency in terms of

aesthetics and tourism. But it seems that logic is from centralization these facilities, benefitting from economic savings and facilitating control and monitoring of such places.

### **Borders of the city of Damghan**

Damghan city with an area of 12110.312square kilometers to the north to the ridge and Alborz mountains, from the East to the city of Shahroud, from the south to the central desert of Iran and from West leads to the city of Semnan. (Map 2) Damghan is located in longitude between 53 degrees and 15 'and 55 degrees 20 'and latitude between 34 degrees and 45' and 36 degrees and 58 '. The height of city is 1170 meters above sea level and time difference with Tehran is 11 minutes and 5 seconds. The city is limited to Alborz mountain from the north and from the south to the desert and from the West to the city of Semnan and from East to the city of Shahroud " (Economic - social, cultural vision, Semnan Province,2007, p. 46).

### **Problem statement**

On a national scale, because of the large extent of country and diversity of the prevailing conditions and lack of coordination in the development of economic – industrial activities are of the factors that realized significant growth of the road transport system, made this system have a major contribution to the displacement of goods and passengers. Making necessary waves to play such a role, at least to medium-term needs the incidence of some of its components and providing the necessary side-infrastructure.

Among these requirements are welfare tourism complexes of road transport system. Because this facility can have particularly favorable effects on various aspects of secure road transportation system notice. Today, more than 80 thousand kilometers of roads connect different areas and cities together and on the other hand link country's road transportation system to international road service of neighboring countries. This system transports more than 95 percent of all passengers and more than 90 per cent of the total passengers and more than 90 percent of transport volume of country annually. Unfortunately, problems and several inhibiting factors in the following lead to the lack of efficiency and high standard necessary to perform the task correctly acceptably. (Davoudi, 2001, Page 2)

1. High life cycle of transportation fleets and its depreciation
2. The lack of adequate capacity of some transport network paths and having less the technical specifications about some of them
3. The lack of proper access to some areas

When speaking of evaluating these complexes in the city of Damghan, it should be noted that the role of these complexes and how they serve are not only exclusive for passers-by, in other words, the road and complexes should not be considered separately from the place where they are located, but the mutual exchange of roads and complexes should be investigated with regional organs and areas in terms of the various economic, commercial, social, cultural, political, defense, environmental, physical aspects. When these aspects are considered, then the ultimate goal of the urban and regional planning, which is achieving "sustainable development" and the creation of logical connection between the human and environment, will be realized, thus it must be pointed that during checking complexes of Damghan in addition to providing services to passers there are other important objectives such as growth and development, environmental protection and social justice for the region and inhabitants to consider.

Reviewing these services in Damghan are done primarily to determine how to deploy complex and also parks and those elements that are directly effective in locating complex and parks on the roads with international, national and regional performance in Damghan. Service elements including fuel pumps, religious centers and restaurants can be developed if they have compliance with the criteria of locating complexes and parks and become such road services. Also other service elements such help relief centers (hotlines) indirectly influence locating tourism complexes and parks.

#### **Hypotheses:**

1. It seems that such complexes in Damghan are not compatible with planning model and available criteria in terms of environment and access to infrastructure.
2. It seems that organizing these complexes has positive impact on sustainable development and maintaining the balance of the region.

#### **Basic concepts and theoretical framework of the study**

The name of caravansary is a combination of Caravan means that the

number of passengers who travel in group and house, meaning the home and location. Both words are derived from Pahlavi language.

Caravansaries that were used mostly for keeping horses and cattle, called Ribat, but caravansary was used mostly by nobility and the government. There was a third type called "lean-on". It was in fact the shade or wind shadow means the downwind shade. Lean-on were built on the road for several hours and short rest and more for resting during daytime and only had the roof or porch without any door or safe place. Some had cistern and without it and had only shade. Caravanserais have found a place beyond a stay home over time and in terms of environmental requirements and social needs of their position and become a place for interaction of ideas, confrontation and exchange of customs of different nations that undoubtedly the communication and cross thoughts and ideas and different people have had a great impact on the lives of the people of Iran. (Article of caravansary by Dr. Hassan Osanloo, pp. 5-3)

Etymology of words such as "lean-on," "Ribat" proves that the origin of caravansaries is Iranian. For example, Carbat is a combination of caravan and bat which means the house of caravan. Also "Bat" at the end of words such as Sabat (lean-on) and "Xara bat" means house and building. "Ribat" refers exclusively to buildings along the way and especially out of town and village and from ancient times entered to the Arabic and even the verb has been made of it and "Arbat" means to get home and rest is the way.

### **History of caravansary**

Caravansaries were guest house between the way in Iran during the past centuries and its history dates back to the Achaemenes era, means more than two thousand and five hundred years ago. In major route between the cities, caravansaries have been built within the distance that the caravan was able to pass in one day.

Because of the dryness of the climate in most parts of Iran and remoteness of towns and villages of each other, the existence of places to rest and prepare food on the way was vital and necessary and without these stations, traveling and communication between different regions of the country have been impossible.

There was no popular caravansary from reign of the Achaemenes and Parthian left in Iran, but from the Sassanid there are few remaining

that have been considered the models of future caravansaries in the Islamic period.

### **Caravanserais of Iran**

Iranians were the first in history who organized long road system was organized, later was chosen as a model of civilization by Greeks, Romans, Arab Muslims and Turks. In fact, what is called caravansary today was the evolution of postal stations of Achaemenes or refugees that connected Susa to Sardis. At the time of the Achaemenes one of the issues that most considered by the government was to provide communication paths between different parts of the Empire.

### **Roads in the old Damghan**

In the division in the Islamic era, cities were divided into two categories of self-driven and created cities. Of course, Damghan is among the first batch that was formed from pre-Islamic period as the Board of the centrality and after Islam, it was developed continuously. According to Nasser Khosrow, traveler and scholar of the fifth century AH (444 Hijri) the ways of the desert, including Jandagh and Biabanak villages were dominated by the Ismaili sect and vice ruler governing this area was assigned by Amir Ismail Guilaki was the Ismaili leader in Tabas. Since at that time this sect had major bases in Khorasan and also in Damghan we can say that roads directly to the North in the desert were strictly taken care by the Ismaili sect.

Except the road from Jandagh to Damghan, there were other northern and southern ways that connected Damghan to other areas including the twenty-two milestone road from Damghan through Dibajnis to Astarābād. Six milestone is from Damghan to Dibajnia and from the Cheshme Ali to Tehran is a six-day trip and from Damghan to the beginning of Hoseinian desert with twelve milestones and this desert is thirty milestones that the camel driver goes through Yazd. (PBO of Semnan Province, summer, 2007, pp. 78 79)

### **Road service, tourism complexes**

In the current era also the requirement to have shelter during trips are one of the concerns for travelers and with obsolescence of caravansaries and lack of meeting audience needs through fuel stations, these complexes are good alternative to provide services in the topic of tourism and road trips. In general, road complexes are

public facilities near highway or freeway that include restaurants, fuel station and a stopping place, to provide services to drivers and passengers. However, these set in place beyond their own place during development and have become multi-purpose complexes with the aim of development of the tourism industry.

Significant expansion of road transport in Iran and the development of the road network on the one hand and inappropriate and inefficient distribution of welfare service locations along the roads has caused numerous problems for passengers and drivers.

Lack of services on a way, poor locating, lack of fitness of traffic volume of vehicles and passengers with the capacity of disperse service units, poor sanitation and problems of supervision and control and other chaos, made the necessity of organizing service complexes inevitable and based on rightful duties assigned, the plan of construction of service, welfare and tourism complexes has put on the agenda of road maintenance and transportation organization.

Integrated utilities and parks are complexes have been constructed along the major roads to focus the required services by drivers of Iranian or foreign vehicles and their passengers and have health services, restaurant, prayer room, parking and gas station and other welfare services.

#### **Targets in the construction of road services and tourism complexes**

1. Providing conform for drivers and travelers by appropriate and focused services.
2. Preventing distribution of service units along the road and focusing them in one place
3. Fast access of drivers and travelers to required services.
4. Reduction of road accidents and increasing road safety.
5. Reduction of time waste of drivers and travelers
6. Reducing traffic nuisance and flowing road traffics
7. Providing appropriate opportunities to say prayers and spreading its culture
8. Providing road, tourist and pilgrimage information as global network
9. Prevention of environmental pollution
10. Strengthening tourist and recreational attractions in the country

11. Creating a fertile ground for making job opportunities
12. Possibility of centralized management and closely monitoring the performance of these complexes (Transportation and Terminals Organization, 2000. p. 131)

**Advantages of construction of these complexes in the roads of the country**

With the construction of any complex, number of jobs created in different fields and for appropriate workflow those trained will be employed in the complex such as technician, restaurants workers, telecommunications, gas stations, etc.

Internationally Iran is one of the most important transit paths. A major part of the country's main roads is in international corridors of north-south and east-west. Iran connects corridors of Asia to Europe, and Europe to the Caucasus and central Asia. Location of Iran in the course of these corridors makes the development of these complexes as a necessary infrastructure measure in transport.

**Variety of welfare tourism complexes**

Considering the role and the function of each of the complexes in providing services to passengers and drivers along the roads as well as the investment by the private sector and the extent and volume of performance are ranked in three levels of 1, 2 and 3. In the following table, you can see planning model of welfare tourism complexes of grade 1,2,3.

**Table (1): Planning model of welfare, tourism complexes**

Service-Welfare Elements			
Grade	1	2	3
Scale(Acre)	3-10	2-5.1	5.1-7
Gas Station	Stations With 16-8 Fuel Pumps	Stations With 10-8 Fuel Pumps	Stations With 8-4 Pump Fuel
Prayer Room	Mosque With Area Of 100-150 Square Meters	Mosque With Area Of 50-100 Square Meters	Mosque With Area Of 12-24 Square Meters
Restaurant Capacity	300-500 People	150-200 People	-
Place To Have Homemade Meal	-	50-150 People	-
Buffet			25-75 Square Meter
Sales Section	Fruit, Snack, Handicrafts	Fruits, Snack, Handicrafts	Fruits And Snacks
Sanitary Service	20-30	10-20	6-10
Lounge Area With Health Elements	3-10 Rooms Or 5-10 Suites		



Repair Shop	Carwash, Wheel And Oil Change Unit, Mechanic, Spare Accessories Sale	Carwash, Wheel And Oil Change Unit, Mechanic	Wheel And Oil Change Unit
Parking Capacity	200-400 Vehicles	150-200 Vehicles	50-75 Vehicles
Health Care	Outpatient Unit Will Ambulance	First Aid Unit With Ambulance	First Aid Kit
Information	Computer Unit, Audio Video Unit Of Travel Info	Computer Unit, Audio Video Unit Of Travel Info	Computer Unit, Audio Video Unit Of Travel Info
Bank	Atm		
Insurance	Branch Insurance		
Telecommunication	6-10 Telephone Booth, Distant Call	2-6telephone Booth, Distant Call	At Least One Telephone Booth
Emergency Facilities	Helicopter		
Recreational Facilities	Play Area For Adults, Children	Play Room For Children	Play Area For Children

Source: The findings of my research (Master Plan for Integrated road welfare tourism complexes, 2000, p. 134)

### Field studies and site selection of these complexes in city of Damghan

In determining areas for construction of the complex in the city of Damghan, several factors must be considered as follows:

1. **Roads:** Role and place and volume of flow can determine scale and degree of complexes.
2. **Location:** In fact, a response to the central question of what space to deploy complex is appropriate? This includes a collection of criteria are as follows:
3. **Environmental:** The topography includes adequate access to water resources, safety of the environmental hazards (floods - Slip, etc.), the wonderful visions and low productive value of the land
4. **Social and Cultural:** Displacement volume in axes and stop orientation of passengers and existence of historical and cultural spaces and elements
5. **Economic:** Space orientation of applicants of private sector to invest in the construction of complexes by recognizing the role of the provinces in the transporting goods and passengers in the country, using economic savings resulting from these complexes along the road
6. **Physical:** Paying attention to the appropriate distance from urban and rural areas and environmental considerations may provide infrastructure services in suggested places and using areas where there is less risk of accidents.

## **Conclusions and hypothesis testing**

### *Conclusion of first hypothesis*

There are reviews for infrastructure facilities to know the extent of access roads of the city of Damghan to water, electricity and telephone. Because on one hand, these complexes do not have much gas consumption, and on the other hand taking the main gas branch from transmission pipeline between the cities is uneconomical due to high costs, including the cost of creating pressure reduction and plumbing completely, the availability and distribution of gas in the city of Damghan is not considered.

Surface water is still having no role in supplying water in the margins of the main ways and for supplying drinking water, aqueducts and wells have a major role.

Aqueducts have lost their efficacy in recent years and demand for drilling rigs has increased, while underground resources were vulnerable to sea level fall.

In this way, in using the underground water resources should be particular attention paid to the potential and steady operation so it can be said that the use of water resources, wells and aqueducts constructed, is the most affordable and the most appropriate way to provide water for the city of Damghan and its road complex and parks. (Statistical Yearbook of Transport, 2008, p. 40)

The results of field data from regional power company in the city of Damghan show that all roads with the international, national and regional function use electricity and providing electricity to complexes and parks suggested is in need of payment of the subscription, cabling and similar things.

According to information from Telecommunications Company, providing land lines on all roads with the international, national and regional function due to passing land lines and phone systems in urban and rural areas surrounding them, is possible and transferring it to service complexes and parks is subject to payment of additional fees, such as cabling that must be paid. That information is available while almost all roads with the international, national and regional function have mobile coverage and only Damghan – Jandagh road except a part of it including Moaleman Yazdanabad do not have telephone coverage.

According to the detailed survey, the most important factor leading to non-compliance of standard service model of complex designs with the reality in the city of Damghan was the lack of infrastructure such as water, electricity and gas due to remoteness from cities or major transmission lines. Clear examples are the distance of Damghan-Moaleman road which is perpendicular to traare form more than 2 km away. Two complexes in the city of Damghan, are not compatible with planning model and regulations.

*Conclusion of the second hypothesis*

Studying international historical background of these complexes in the city of Damghan suggests that poor service in the complex is far beyond the services to passers. Therefore, from the perspective of urban and regional planning there is this capacity to benefit from potentials of these complexes in order to achieve the objectives of sustainable development and regional balance. To this end, examining the role of these complexes in terms of various aspects can determine these capabilities better.

From the economic aspect, creating these complexes in the city of Damghan plays an important role. Establishing justice and stability in the region, creating jobs, reducing costs, increasing competitiveness, creating economies of scale, expertise, eliminating deprivation, strengthening of the holiday areas, the reduction of road accidents, increasing the supply of land and especially the creation of new job opportunities in this area are of the most striking roles of these complexes. From commercial aspect also these complexes by facilitating the trip, cause he development of the old markets effects and creating new markets, encouraging competition, reducing concentration and congestion in the city and avoiding enhancing double transport. A set of economic, commercial aspects, given the creation of growth opportunities in its region, are considered as important factor in achieving balanced regional development.

These complexes in the city of Damghan have high capabilities in their long-term performance in strengthening social values, for example, the construction of these complexes in the city of Damghan can have positive outcomes such as social cohesion of residents and expanding of social units, social integration and national links and reducing crime and victimization and violations of the law. The

importance of non-economic roles of these complexes is to the extent that we can no longer ignore them when studying their place. Sometimes each could be reason alone to construct other complexes, for example, from political aspect extending the power and jurisdiction of the central government, creating political stability and increasing regulatory governance, are of those roles that can persuade central government to build such complexes in the city of Damghan.

On the other hand, significant cultural roles are attributed to these complexes. Creating these complexes in the city of Damghan, while setting the stage for the growth of talents is considered a factor for strengthening public education, changing attitudes of travelers and area residents to work and, in particular, the development of social culture, cultural exchange and interaction, optimal use of leisure time, and also promoting capability of cultural and religious issues.

The role of these complexes in the city of Damghan also is very important from military aspect. This role reaches its peak when the defensive situation is a priority for the country. Their ability to change the function of the complexes to military bases, barracks and supporting usage as headquarters, a place to treat war wounded, ammunition and food store or even a place to provide services to soldiers returning from war zones suggests the importance of defensive importance of these complexes, especially in the border areas. In this field, cultural, social, political and supplying factors are required to reach to development prerequisites in a regional context to ensure that this is possible with the help of these complexes.

Also the presence of such complexes in the city of Damghan, while can be considered grounds for visual richness of roads, though environmental issues, can be partly considered as a disruptive factor of environment, but these complexes play a significant role in eliminating damages to the environment.

The most important role of these complex is to guide and monitor human intervention in nature and deployment of services in roads such as repair shop, oil change, car wash, fuel distribution, children's play area, Kitchen, restrooms, garbage collection and so on they minimize damages to the environment. In particular, by collecting, guidance and special waste water treatment and chemical and oil derivatives, as well

as garbage collection, reduce the pollution of nature landscapes, underground and surface water.

On the other hand, these complexes in the city of Damghan prevent a human being rush into the nature by providing play space for children, cooking a meal or even stop area and recreational place. In addition, the green space created in complexes of the city of Damghan will have a positive impact on the entire region and spirits of passengers.

According to the environmental aspects of mentioned complexes, their roles in terms of sustainable development are of particular importance in regional development. Therefore, the correct locating of the complexes in the city of Damghan leads to cultural interactions, creating justice and regional balance, diversity and safety and mental health of travelers that are necessities of sustainable development, while encouraging people participation to have successful roles of complexes.

### **Recommendations**

Knowledge of urban and regional planning has special procedures for the implementation of various programs, including the physical concepts. Regional and urban planners must resort to two solutions to operationalize their objectives enumerated due to their specialized knowledge: First solution is to provide the collection of locating and designing criteria for these complexes in the city of Damghan that make this requirement for planners to consider those requirements while locating and designing these complexes. The second solution is to consider a set of specific service elements in addition to the usual elements in complexes in the city of Damghan and their combination, thereby we could achieve the above objectives such as sustainable regional development together with raising the well-being of passers-in the roads of the city of Damghan.

In order to have successful roles of service complexes of Damghan, there must provide a context where these roles have proper place in terms of physical aspect. For this purpose, one of the effective means is to deliver the appropriate location and design criteria. When locating and designing of a complex, the whole requirements of playing role and its function should be considered, then the necessary context for playing different roles will be provided.

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