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## **CAPITAL TRANSFER CHALLENGE AND SEARCHING A LOGICAL APPROACH TO SOLVE PROBLEMS OF TEHRAN AS A METROPOLIS**

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### **ABSTRACT**

Rapid growth of urbanization and development of cities with million populations as one of the most important challenges facing the urban system of developing countries this challenge appears more evident in capital of such countries and makes managers and official of the cities to choose capital transferring solution as the only alternative approach to solve this crisis. Our country, Iran has faced this problem in recent decades, and transferring the capital from Tehran to other areas has always been proposed. In this study, we will reach to a logical and efficient pattern to solve problems of Tehran, a metropolis, by studying and analyzing the origins of the formation of urban problems as well as reviewing the experiences of other countries in transfer of capital. The research method is cross-sectional have and has been done in terms of practical and developmental way. What was resulted at the end of this study is indicating that although short-term approaches are essential for meeting some problem of Tehran as a metropolis, a long -term view in terms of land preparation plans should be attempted to solve the problems fundamentally.

**Keywords:** *Tehran Metropolis, Urban System, Capital Transfer, Spatial Planning*

### **INTRODUCTION**

Urban population growth has increased nearly four times all around the world in 1950-2000. This means that it has reached from 730 million people to 2-8 billion people. Also, in 2008, for the first time in history, more than half of word population (3-3billion people) lives in urban areas, which equals total world population in 1960. The studies show that urban population will be twice in number by 2030 and will reach to 5 billion people. Thus, most of population growth nearly occurs in urban areas in future decades (Chant and Mellwaine, 2008). This phenomenon is relatively more in urban systems of undeveloped countries and less-developed countries than developed country. Most of developing countries are dissatisfied with the spatial development of their habitats, regional population distribution way and economic activities. especially excessive centralization of city of these countries (primate city), which not only can attract main part of developing abilities of countries to these cities, but also these primate cities have faced numerous problems. The excessive population centralization and activities mainly in the biggest cities of developing countries made these cities to be relatively excessively bigger than second and third cities (ZebarDast, 1386). Population also in Iran has had a rapid and unplanned growth in recent decades. Regional development disparities and existing regional inequalities influenced by mechanisms governing the socio-economic and political structures of the country also rapid urbanization and uncoordinated development of small and big cities under centralization of economic activities and service facilities in Tehran resulted a complete separation and evident function vacuum in urban system of other cities (Moosavi, 1382). The result of this trend is emergence of primate city in urban system of Iran so that Tehran has maintained its own superiority in different fields as a top and primate city and is out of ordered regular in the country economic, political, cultural, military and service centralization in Tehran has provided a wide field of employment and at the same time a relative stagnation in other cities of the country (Shokooee and Bageri, 1377).

### **Problem Statement**

In the past half century, what has raised most issues in population policy and spatial expansion of cities is the rapid population growth and its process focuses on one or more urban areas. Its reelection has

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originally realized on a continuous spatial expansion and today on a discontinuous expansion. In most countries, capital is the main place of industry and capital focus and the rest of the land form the marginal or peripheral areas. Center of the cities usually possess a large portion of the population industry, service and core network nodes, transportation and seat of government. This endangers the stability and national directs, and provides encroaching on periphery areas of metropolises as well merges set of central cities, cities, towns and peripheral alleys-In the wake of the conditions, suction effect of center of gravity has attracted features of surrounding parts and areas of the land and deprives the peripheral areas from set of capabilities which are seen as the basis for economic growth (Nazariyan, 1388). Iran like other developing countries been changed with a more or less variable rate after socio-economic changes of urban network and has offered various forms. Based on this, population distribution system is not balanced in the country and in spite of changes in urban system in Iran, accommodation face of population don't give a good image. Accommodation existing model and its distribution trend has a tendency toward misbalancing and chaos and will change (Haman).

Development of big cities and population dense in them, form the main feature of urban system in the country and Tehran has maintained its superiority in different fields of socio-economic as a top or prime city which is outside the order of urban system. Tehran as a metropolis with a few million population as an unrivaled city due to various center and highly level was able to influence all parts of the country in its own political -administrative and socio-economic field, so Iran, like most third world countries has the primate city pattern (Nazariyan , 1379). As mentioned, urban space especially urban collection of Tehran due to its higher place and turning point of all economic -political activities of the country, hosts population dynamics especially unemployed and poor people due to macro- exogenous programs and world's economic changes. After years of 65-75 despite a reduction in growth rate of Tehran to 1.11%, its around centers experienced 6.39% growth. During this decade, urban population set increased to 2million people without Tehran which around 40% of this rate was informal settlement. This rapid quantitative rise has yielded increasing problems in the range of collection, so that heavy costs has imposed on management bodies and government material and immaterial costs resulted by heavy traffic, water supply, urban infrastructure certificate this problem in recent years (Sarvar, 1388).

These problems in metropolitan Tehran made the official and managers to solve them by moving the capital from Tehran to another city, and by studying the experiences of other countries in this case, it can be resulted that such an approach couldn't deeply solve the problems of metropolis, and it has been done unwisely by spending high costs. In this regard, we should essentially attempt to understand mechanisms of these problems in metropolitan Tehran and to overcome these problems we should pay attention to the major changes in system of the country.

## **MATERIALS AND METHODS**

### **Research Method**

**Table 1: Kinds of capitals**

Traditional capitals	Bagota, Karakas, London, Madrid, Rome, Paris
Moved capitals	Ankara, Astana, Lilogo
Reconstructed capital	Abooja, Brasilia, Kanbra, Islam Abad New Dehli
Central capitals	Moscow, Ottawa, Washington
Two-part capitals	Amesterdam, Hagu,Lapaz, Sooker, Partoliya, Bloomfontain, Kip Taw,
Archipelago capitals	Jakarta, Tokyo
Capitals with unit power territory (Campbell, 2003)	Abooja, Brasilia, karbra, Mexico city, Washington, New Dehli,

The research method is cross -sectional here and we used documentary and library technique to collect data. So that by analyzing document, books, articles and reports resulted in terms of this subject we are to extract a logical approach to solve problems of metropolitan Tehran.

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### *A Review of International Experience in the Transfer of Capitals*

Since urbanization trend especially in late decades of 20<sup>th</sup> century was of higher growth. Great changes have also occurred in the area of urbanization and space development in big urban areas especially in capitals.

In classification, Campbell like Hall (Hall, 1993) has divided capitals into six groups and has determined its examples.

According to above classification, in present century in a few countries, movement of political centers has been considered as a novel necessity. Although some issues including demographic, geographic, and environmental are the basis of many reasons to change the capital, a closer look to movement or formation of new capitals it is clear that such reasons cannot show all aspects of movement factor (Schatz, 2003). Because in this case, this question is raised that why Argentina has changed its capital from Boins Ayres to Carmen Panagos? Or why Japan doesn't change its capital from Tokyo to Sendayi or Nagoya? Tokyo not because of being capital but due to some reasons such as third ware of industrialization, inter-city transportation costs, population densely and advantages from it has empowered unity and profited from benefits of integration (Darsou, 2004). So the officially listed reasons cannot be the only real and complete reason for capital movement and in addition to the reason set we should also note to some themes including changing the foundations of power, changing the focus kind, cultural inclusion and so on. Because some issues such as culture, region, race, centralization and neutrality are important and effective in decision to transfer the capital and the final decision will be result of political compromise. According to Andrew and Taylor, while studying and deciding or planning to change or move capital, the key and effective factors on capital function should be identified and studied. Some of these factors are: political (concentrating on decision-makers) administrative (concentrating on legislation, judicial and administrative duties), cultural (concentrating on symbolic activities and cultural support of that activities) informational (concentrating on the main source of decision) and symbolic (concentrating on values and norms) (Andrew and Taylor, 2000).

**Table 2: Countries that have transferred their capital since 1900**

Row	Country	Year	From	To
1	Turkey	1923	Istanbul	Ankara
2	Australia	1927	Melbourne	Canberra
3	Pakistan	1959	Karachi	Islamabad
4	Brazil	1960	Rio de Janeiro	Brasilia
5	Tanzania	1974	Dar es Salaam	Dvdma
6	Ivory Coast	1983	Abidjan	Yamvskrv
7	Malaysia	1992	Kuala Lumpur	Putrajaya
8	Germany	1999	Ben	Berlin
9	Kazakhstan	2005	Almaty	Akmvla (threshold)

(Rawat, 2005)

According to information foundations in Tables 1 and 2 and studies the following results can be obtained:

1. Capital transfer by all studied countries with different governance structure (centralized and decentralized) has nearly been experienced identically. So political capital transfer cannot be regarded, by itself, as decentralization way and reducing activity volume in the capital (Brazil, Pakistan, Turkey, Germany). Since decentralization is not exclusively related to spatial issue and it can be seen in administrative (staff band government duties staff to local area) financial (bestowing financial sources and income-yielding authorities) political (bestowing decision-making authorities) area or a combination of mentioned cases (OECD, 2005).

2. In all studied countries, capital transfer has been done under certain conditions of policy economy and history of that country. Though it should not be ignored that similarities in new capital interactions can be

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observed. Transfer Brasilia and Islam Abad has been done in a period of time and Brasília effect is evident on Islam Abad design.

3. Every country has its own certain reasons for capital transfer. From some main reasons for capital transfer we can point to 11% policy e.g. Germany, 44.5% defensive e. g. Brazil, Pakistan, Turkey and Kazakhstan, 78% economic and regional development e.g. Brazil, Pakistan, Turkey, Kazakhstan, Germany and Malasiya, 33% symbolic, e.g. Germany and Australia, 37% due to environmental issues and disasters e.g.. Brazil and Pakistan, 22% exclusively administrative and government needs e.g. Pakistan and Australia. In some cases, for example Malaysia and Germany, global equations and considerations were important factors in capital transfer. It seems that economic considerations play a key role in capital transfer.

4. In 85% of studied countries, capital transfer has been approved by regulatory authorities and just in Turkey, capital transfer didn't occur due to its special military and strategic reasons.

5. In all studied countries, constructing new capital has no considerable influence on life of old capital and somewhat could reduce growth rate and balanced it.

6. New capitals are mainly center of political and governing activities (Islam Abad, Canberra, Brasilia ) while business, cultural, economic and tourism activities have continued in old capitals. Karachi, Sydney, Rio de Janeiro, Istanbul, Almaty are example of old capitals in which growth process is still forwarding ever after capital transfer.

**Table 3: Growth trend in metropolises after capital transfer**

City	Country	1975	1985	1995	2005	1975
Brazil	Brasilia	785	1346	1/77	2/388	785
	Rio de Janeiro	7/875	9/156	9/888	11/491	7/875
	Sao Paulo	9/890	13/427	16/417	20/531	9/890
Pakistan	Islamabad	-	-	380	530	-
	Karachi	3/983	6/336	9/63	11/819	3/983
	Lahore	2/399	3/462	5/085	6/319	2/399
Turkey	Ankara	1/709	2/261	2/826	4/319	1/709
	Istanbul	3/601	5/408	7/817	12/453	3/601

Source: Nobari and Rahimi (2009)

**Table 4: History and prospects of population changes in Tehran compared to total population in the country (thousand people)**

Time (solar year)	Population	The proportion of the whole country (Percentage)	
		Total	Tehran
1320	14/351	700	4/88
1335	18/955	1/500	7/91
1345	25/789	2/700	10/47
1355	33/709	4/500	13/35
1365	39/445	6/000	12/13
1375	60/55	6/759	11/25
1385	71/59	7/80	9/19
1390	75/1	8/20	10/85
1400	100/00	8/480	8/48

Source: Statistical Center of Iran and computing Author

#### A Brief History of the Development in Tehran Metropolitan

Before studying this subject from organization issues and concentration on making it possible, reviewing the history of Tehran development can determine necessity and efficiency of political capital transfer also serves as an example to approve the studied subject theoretically.

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Our country also like other countries has been influenced by the issue of capital transfer since late 20<sup>th</sup> capital transfer all around the world has a long history in human civilization history.

In the following tables, prospects and changes of Tehran population has been shown compared to all country.

**Table 5: History and prospects of population changes in Tehran compared to total population in the country (thousand people)**

Time	The total population of the country	The population of the city of Tehran	the whole country	The proportion of the country (Percentage)
1345	25/789	3/456		13/40
1355	33/709	5/300		15/72
1365	49/445	7/930		16/03
1375	60/55	10/344		17/22
1385	71/59	12/97		18/13
1390	75/1	14/400		19/16
1400	100/00	17/700		17/70

Source: Statistical Center of Iran and computing Author

Reviewing table 4 shows that population growth in Tehran has been rapid in 25 years from 1320-1345 due to the changes after second world war and Iran's role internationally and regionally and after 1345 due to the policy of decentralization from government and investment in other regions of the country in terms of development planning of 5 years and establishing other main industrial and economic hubs (e.g. Isfahan, Tabriz, Arak Mashhad, Ahvaz,...) which was followed after Revolution especially by more emphasizing on development of deprived areas and rural areas has found a slower rate reduced. The reduction according to predictions and estimations, seriously pursue policies of population control and decentralization will considerably continue until 1400 (Ghamami, 1387).

But to reach to a good image of urban changes in Tehran, we should study these change in a more general term of (metropolitan or urban collection of Tehran). Although development and implementation of comprehensive plan about Tehran and adopting some other plans since the second half of 40s, of Tehran, but made people to turn to cities and territories around Tehran so that once Karaj has around 4 thousand people in 1345, today it is a city with more than 1 million people. Also population growth in Islam Shahr, Qarchak, and Varamin are example of the results of this policy. So, today, Tehran (as 22-area municipalities) is not the only problem, but the main problem is "urban collection of Tehran "with dozens of cities and big villages and hundreds of population centers in medium and small cities in a hierarchy system which are closely related today and have impact on each other (Ghamami, 1387).

#### Significant Problem of Tehran Metropolis

1. Severe centralization and population dense: Tehran has more population than other cities in Iran. It has devoted 16% urban population of the country from 1331 cities.

Tehran has 8.5 million people. It is the biggest city in west of Asia and the 42<sup>nd</sup> biggest city in the world. It has 13 million daily floating people outside and inside the city, and has become a great megalopolis due to the vicinity cities which have accepted their own rapid growth and greatness because of the proximity to Tehran. This city with the feature of macrocephaly has spread its dominance over all habitat networks of the country.

High density of population per unit area and it's spontaneous of the city and has made the city to a great mass of the population.

2. Business and economic centralization: Centralization of main economic, financial and business sources and facilities, like great networks of bank, money and currency, companies, offices and manufactures, financiers, major national and international merchants has made Tehran undertake the leadership of the national economy and the economic centralization always increases population concentration and related

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traffic. Also the relatively high population demand in various cases of many items such as housing has increased the price of land and houses and gradually this increase transmits to other regions of the country. Studies show that part of the increase in land and house results from inflation demand in Tehran and finally lead to price inflation of land and house. And this inflation transmits to other part of the country, though the demand inflation and problem are not as big as Tehran's and increases prices in other cities of the country.

3. Political-administrative centralization: All national decision -making and management centers are located in Tehran: like president's office parliament, judiciary, all ministers, governmental and non-governmental national institutions, and national government agencies and.... Throngs of staff of the institutions and political-administrative centers are in Tehran and their presence has offered Tehran a complete unchallenged political and administrative power and has sent a great deal of ground and air traffic to Tehran to do political and administrative authorities and has increased inner city traffic in Tehran and its floating population.

4. Urban environmental problems: The severe population, economic, service, political and administrative centralization in Tehran and, increasing trend of all mentioned centralizations increase consuming process of a variety of sources in a rapid progress which its result is to produce mass of household, business, industrial, hospital, electronic and ... waste. The most important consuming material and pollutant is gasoline. Daily, at least around 13-14 million liter gasolines is consumed in Tehran which along with consuming gasoline at least 10 million ton carbon dioxide is annually produced in Tehran, which adverse effects of this pollution are clear on the health of residents and is a main factor in reducing life expanse of citizens.

5. Traffic dilemma: The high volume of public and state vehicles and increase the coefficient of ownership of private automobile with floating population has made the places of this city as a daily moving car parking and in addition to the relative increase of fuel consume intensifies air and acoustic pollution. But the most important impact is heavy traffic in Tehran which is often ignored. It is followed by citizen's dawdling away fatigues and psychological disorders in citizens. According to the static and floating population ratio in Tehran, if average per capital waste of time for citizens in Tehran by traffic is, say, an hour, than 12 million hours a day is wasted in the capital which this is 360.000.000 hours per month. Most of these people are human capital of the country such as representative, managers, experts, professors and elites, who serve to citizens as executives of government system shouldn't be wasted in traffic but should be spent for serving citizens.

6. Low indicators of life quality: Population dense, expensiveness, falling purchasing affordance of citizens, time -wasting in traffic, air and acoustic pollution, and disease resulted by them made the life quality indicators to be low effected by environmental factors in Tehran.

7. Earthquakes: Tehran is always subject to the danger of earth quake. Faults of north of Tehran, Moshafault, Kahrizak fault and Rey fault are always threatening Tehran. Each of these faults can cause 7.5 magnitude earthquakes. According to high population dense, economic, service, political and cultural sources and low resistance of most of the buildings and events upon earthquake can cause massive humanitarian catastrophe such as pipeline break of gas and water and connect and disconnect of power lines, fire....

### ***Studying the Role of Capital Transfer in Solving Problems of Tehran Metropolis***

Throughout the history of Iran, from beginning of Median dynasty up to now, namely when Hamadan or Hegmataneh was the first capital in Iran until present which Tehran is the last capital of Iran we have seen 31 capital movements nationally and regionally. Some of the capital were chosen just once and some other for several times. After Revolution, the issue of capital transfer was discussed in two sections first in 1368 and second in the late 1378. Trustee of both studies was Department of Housing and Urban Development of that time. In the first research the study was not so deep. Instant study was conducted due to requirements. Because Tehran faced numerous environmental and traffic problems and they were so many that it seemed unrecoverable and Tehran cannot serve to its large population and infrastructures of it were destroyed by war and lack of examinations and population was growing and the city was developing

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and it was said that Tehran was turning out to be a problem for the country. Of course, after Revolution several studies were carried out in this context in a council under "the council of preventing urban development". It was appointed that this council should manage the issues of informal habitats, prevent construction and privacy but it later it was forgotten. A council that could be formed in the highest level of management and could examine and solve problem of Tehran metropolitan. Another history about this issue goes back to before revolution in 1345 and a study was conducted in this case in the institution of social studies and Research of Tehran University. In that time there was an issue about Tehran development and a board was sent to France to solve this problem to use experiences of France because France successfully completed the land use planning and it was agreed to come a council from France to Iran and accomplish the land use planning. These studies were concluded at the beginning of Revolution and it was appointed to do activities in field to spread population in balance throughout the country and avoid moving to Tehran. First it required to forward people to other parts of the metropolises but this study was stopped after Revolution until it was discussed again in 1362 and an office was established in PBO under "Preparation" title and it was appointed to update the last studies and compile land use planning. The result of those studies was finally approved by current government in 1382 under "Basic principles of land use planning" and it was agreed to prepare the scientific plan of land use planning on the basis of this principle. Up to now just a few of the provinces could accomplish the result of their studies, and provincial studies were done regardless of national studies. However, the problem of land use planning was always important for high -ranking managers and government, based on fifth development plan, establish the national council of land use planning. Again it was in 1387 that the issue of capital transfer was raised in the Institute of urban Research and studies related to Ministry of Housing and Urban Development in Iran, and four areas were introduced as the alternative capital but this study was remained at this level. In other side, we have always faced with the problem of population distribution and activity nationally and land use planning is emphasized according to these subjects and problem of Tehran metropolitan should be observed beside the problem of land use planning and the problem of Tehran cannot be discussed without considering land use planning. Solving each of these problems is impossible without considering the other one.

## Conclusion

According to the problems that today we faced with. The necessity of a basic ongoing change and present studies of the urban system in Iran and Tehran is felt. Thus to solve this problem deeply serious and effective attempts are required firstly in term of land use planning's along with spatial justice in Iran's habitat system and in addition to decentralization of economic, society, policy and culture, the decline of public relations in Iran and Tehran should be corrected. In fact the main vectors of forming primate city in Iran should be identified and careful and thoughtful planning should be done to solve the problem. In the framework of the strategic plans, smaller problems inside Tehran should be followed and a scientific and logic attempts should be done. In this case we can hope that, problems of Tehran metropolitan that is today faced with should be fundamentally met. So the issue of capital transfer that sometimes is raised by managers and experts we cannot regard a logical solution to overcome the problems of this city due to current conflations and for motion of problems in Tehran.

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