

Full Length Research Paper

How can conventional small metropolis add to sustainable development?

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Accepted 15 January, 2014

In this article the author intends to examine the relationship between development and population growth, land use and local planning in small cities in Iran. The main local challenges in Iran, such as the overuse of space and natural resources, unsustainable human settlement and the lack of due attention to cultural-historical heritage, are often the results of the imbalance between development and the above issues. In line with the results of previous and current studies (Fanni, 2003, 2006) concerning three small thinly populated cities in Khuzestan Province, Iran, it has been found that they are capable of providing employment opportunities, especially for their own citizens. Also, the author intends to study how this urban scale center can contribute to a balanced distribution of population and consumption patterns of goods and foodstuff, transportation and information processes. This study, which is based on library research and fieldwork, focuses on three small cities in Khuzestan Province in Southwest Iran.

Key words: Sustainable development, local planning, population growth, urban problems, small cities.

INTRODUCTION

In many cases, due to the scarcity of resources, regional authorities are often overwhelmed with the task of coping with the main problems of their community (Keiner, 2006). We, too, are facing the main problems in our cities, but it can be said that traditional small cities will have fewer difficulties if we have local planning for sustainable settlement. For example, as it is can be seen in the urban development index (Table 1), these cities have inefficiency in literacy rate, employment and urban services. Therefore, it seems that planning from down as well as from national and regional levels can aid these centers to adjust their problems. Urban sustainable development issues are crucial. To this end, the current research offers some knowledge and a proposition that can contribute to solutions on regional level.

This article presents recommendations and examples on how the functions or roles of small cities - in form and population - in Iran can help establish sustainable traditional settlements. The principal aim of the proposition is to present a system of integrated urban management for small cities in Iran. Three urban areas consisting of small cities in Khuzestan Province have been studied in terms of the economic, social and environmental impacts of the small cities on their regions. This study follows what is

known as the first initial urban/regional approach adaptation to urban sustainable development in the third world countries (Hardoy and Stterthwaite, 1986). However, it is necessary for the planners to study other functions which can contribute to sustainable management of small cities in Iran. This process can involve issues such as citizen participation, governmental urban management pro-grams, comprehensive knowledge of small cities, natural and artificial environment, and urban environmental education.

The challenge: Urban sustainable development

Why the small cities?

From Athens we inherit two seminal ideas: that the good life is the life of moral and intellectual excellence, and that the good city is one that makes this good life possible for its citizens. From Jerusalem comes a third idea: that a city's excellence is also measured by the care it exhibits for its weakest members. And from Rome we inherit the idea that a city's beauty is warranted by and represents its greatness. These ancient views of cities, though acknowledging the central role of commerce, were

Table 1. Urban development index in a case study, 2003.

Index	Ramhormoz	Shadegan	Shush
Literacy rate	80.5	76.9	77.4
Employees to total of population	21	13.9	16.4
Rate of unemployment	17.2	28.7	15.6
House owning	68.4	74.8	73.6
Houses with water pipes	92.1	94.3	97.2
Houses with electric power	98.4	98.6	95.8
Houses with telephone	6.3	18.7	15
Hospital beds (in 10000)	31	19	16
Health centers (in10000)	31	17	9
Physicians (in10000)	16	8	8

Source: Ministry of housing and making city, 2003, urban development indexes, Iran.

essentially moral and aesthetic (Bess, 2003).

Urbanization is one of the most powerful forces challenging the goal of sustainability prospects today. The concept of sustainability typically encompasses social, economic, political and environmental components (Olewiler, 2006). The convergence of population growth and urban expansion causes great challenges to achieve urban sustainability, and especially the central and the regional governments are faced with major responsibilities in addressing these challenges. However, regional authorities do not always know how best to tackle urban sustainability issues. Today, the context of urban planning and management is changing faster than ever before in human history (Taylor, 2007). In Iran, as a matter of fact, the New Cities Policy has not been very successful in national and regional urban development (Ziari, 2006). Therefore, small cities management and planning can be the appropriate solution towards sustainable settlement. This undertaking may be approached through three issues: first, administration/management decentralization from large cities, especially metropolitan ones such as Tehran, Isfahan and Ahwaz; second, stabilized settlement/subsistence for environment protection and adaptation to natural resources; and third, urban expansion conforming to the structures of cultural and historical heritage.

Another important reason for concentrating this study on small cities in Iran was the significance of governmental urban program. Once citizens get involved in decision making for the municipal budget, it is recognized that urban planning and management, in particular sustainability management, also need to be fundamentally revised. It is clear that a purely physical planning model that operates in isolation from the key factors is now incompatible with participation approach. Therefore, the planning authorities need to accept democratic decision-making processes in relation with other government bodies, other institutions or most importantly, with citizens. Also, in order to involve different participants, we need a system of knowledge and information of the urban

and natural/physical environments and citizens. But the main problem in this regard is the lack of a powerful system of education in our small cities. Thus, proposals to accomplish the mentioned infrastructures must be made. On the other hand, the production of this knowledge itself requires fundamental changes in the way information is collected, compiled and validated.

METHODS

This study is based on library and empirical work. The author has selected three small cities in Khuzestan Province (Ramhormoz, Shadegan and Shush) based on population and economic parameters, after four months of primary study. As for the definition and determination of small cities, a number of parameters including the formal gross data's population of those cities (Adopted from the Statistical Center of Iran, 2003 and 2006), the type and scale of economic activities, the social services and the facilities in urban centers were used. A population threshold of 20000 to 50000 inhabitants to be useful in distinguishing different scales and types of contribution to regional sustainable development was found. Then, 500 samples from each city at random were chosen. The author, a native of Khuzestan Province, and Two of his students stayed in the cities under study for 3 weeks and completed the questionnaires.

Definition of small cities

Since the purpose of this research is to study small urban centers and their potential roles in sustainable development strategies, first, it seems necessary to definite these cities based on the thresholds related to scales and diversities of economic activities, public services and contributions to national or regional sustainable development. Then the researcher will be able to choose the case study. My findings about small cities in Iran resemble those of Au and Henderson (2006) definition should be particular to each nation or region and changes over time.

Therefore, it would be possible to define small urban centers concerning their roles within particular regions.

Just like other third world countries, an appropriate and exact database does not exist for the regions of Iran. Even if it did, it might obscure important rural-urban links. In the third world, indeed, the only statistical information available about most small cities in the study region is the population size. It has been found that (Fanni, 2003; Drakakis, 1995) urban centers within the same region with comparable population sizes can have very large differences in the type of employment and economic base.

In this study, a region has been selected (Khuzestan Province) and three urban centers with 20000 to 50000 inhabitants (as small cities) which have generally enjoyed a higher administrative status, better road and/or rail links with the wider regional or national economy, a larger population in surrounding areas which relies on it for goods and services and a lower proportion of the labor force working in agriculture compared to what we term small urban centers between 20000 and 50000 inhabitants.

Urban decentralization or controlling the growth of large urban center

As small city is a concept that can be useful for identifying and analyzing synergies between urbanization and sustainable development (Svane and Weingaetner, 2006). These particular points were selected by the author. Some researchers believe that not only natural resources but also economic powers and opportunities had been distributed prejudicially in the regions of developing countries (Drakakis, 1995; Blowers, 1991). The majority of regions in Iran have suffered from unequal special growth and development (Ziari, 2003). This unequal distribution favoring large cities attracts the new investments, which in turn, generate major cultural and socio-economic differences. Therefore, the small feeble urban centers are unable to compete with large powerful cities, leading to worsening developmental budgetary differences.

Over-centralization of administrative power and resources in large cities often ensures that these cities are over-burdened, and deprives lower levels of governments in small cities of the power and resources they need to address local problems and local developmental needs (Hardoy and Stterthwaite, 1986). But the findings of two researches (Fanni, 2003, 2006) show that a support policy can enable small cities to attract population and investments. Also, concentrating urban facilities/services (Such as education, health, social welfare facilities, employment opportunities, etc.) on small thinly populated cities causes national/regional centralization to decline or at least decelerates its growth.

As Renaud (1981) and Hardoy (1988) pointed out, a certain minimum population size and concentration of income are needed for the profitable operation of specialized business services, shippers and jobbers, finan-

cial offices, legal offices, trade associations, repair shops, equipment leasing, laboratories and vocational schools. For many businesses, these factors affect the attractiveness of a city more than cheap labor. Hardoy and Stterthwaite (1986) contend that the development of the functions of small cities is an important development policy that can be applied to the objects of decentralization and sustainable development in Iran. Paying attention to this policy will result in conditions which can enable these centers to affect the total region in the production activities.

Through the attraction of the main share of productive factors, investment and labor forces of the region, small cities can act as independent weights away from the attraction realm of the centers of a province. Therefore, they can gradually become growth centers for their sub-regions. Moreover, with concentration on economic activities, including the collection and processing of goods/raw materials in these cities, their dwellers, especially rural inhabitants, will not move to large cities. Therefore, in order to meet food/health necessities, human movements will shift away from crowded large cities to small scale cities. In this way, the small towns can gradually attract more wealth and population.

This process in Iran took place just by enhancing socio-economic infrastructures, health services, education facilities, etc. Therefore, studying small centers shows that (Fanni, 2003, 2006) their functions lead to the distribution of administrative, social and economic powers and consolidated development so that they will approach sustainable development goals. It is certain that the decline of regional differences will be for the benefit of sustainable development across the region.

Stabilized settlement (transportation, gender roles, and so on)

Since small cities are 'small' and have less need for cars, and since cars are often considered as the worst enemies of man's health and environment, urban traffic networks have been called 'deathful' factors increasing urban upsets and disarrangement (Newman and Kenworthy, 2000; Register, 2003). Fortunately thinly populated traditional cities in Iran have not yet faced this problem. As it can be seen in Table 1, the urban development indexes of the cities under study are close to one another. These cities have rudimentary transportation systems; the short distance between home and work places makes people use simple inexpensive means such as bicycle, motorcycle or public vehicles (Table 2), thus creating low pollution and lowering traffic problems.

As it can be seen in Table 2, women mainly have a more sustainable behavior compared to men. They cannot or do not want to (because of cultural customs) use private vehicles, but men can use all kinds of vehicles. However, their inhabitants enjoy good air and lovely life,

Table 2. The means of traffic to work, shopping, etc.

	On foot	Bicycle	Motorcycle	Private vehicles	Public vehicles	Total
Men	30	50	60	60	50	250
Women	75	-	-	15	160	250

Source: Adopted from field research by author (2006).

Table 3. Information flow modes/media (studied cities, 2006).

	Men	Women
Newspaper and publications	49	35
TV and Radio	140	125
Internet	25	35
Satellite	20	20
None of them	25	6

Source: field research by the author (2006).

Table 4. Distribution of employees in various sections of economy (2003).

Section	Ramhormoz		Shadegan		Shush	
Agriculture	463	5.7%	377	4.2%	1330	14.7%
Industry	1869	25.1%	1796	27.6%	3230	36%
Services	5033	67.8%	4276	66%	4333	47.1%
Total	7364	100%	6449	100%	8893	100%
Total population	36640		41716		51912	

Source: Statistical Center of Iran, 2003

Table 5. Kinds of consumption of people in the studied cities (2006 compared to 1986).

	1986	2006
Native goods	70%	30%
Non-native goods	30%	70%

Source: field research by the author (2006).

life, and mostly use natural materials and goods; therefore, they do not depend on modern sophisticated technology and trade modes.

In addition, these cities are not only less affected by their region and regionalism, but also they have traditionally preserved their economic-cultural positions. Generally, in Iranian small cities, the state employees' income is less than those in the large cities especially in private sector (Saremi and Fanni, 2007), but since decades ago, those with low income (as seen in Table 5) have managed to arrange a suitable consumption pattern with the least rate of consumption of resources, inflicting the lowest harm to natural environment.

As it can be seen in Table 4, the role of these cities in local economy is mostly in the simple services for other sections. They are 67.8% for Ramhormoz, 66% for Shadegan and 47.1% for Shush; while they have traditional agriculture and low employment in both farming and

industry.

According to the results of the study on small urban centers (Tables 3 and 4), we can explain that they have not yet provided the necessary contexts and infrastructures for transformation, and they have not accepted the new socio-economic human changes. Hence, they are not influenced by globalization and its effects. Therefore, we can say that these cities have not yet embarked economic, social and cultural changes. Their sections of economy need simple traditional labor and technology, resulting simple low output economic activities. One of the most important definitions of sustainability is that according to which in a 'sustainable situation ... desirability, consumption and resources do not decrease during time' (Perman and McGilvray, 1999). Undoubtedly this situation does not exist in the cities under study, and the ratio of living desirability, especially for the young generation, is at a low level which will result in an increase of natural resources exploitation on one hand and the consumption of non-domestic goods on the other hand. But like other cities, family consumption, especially of non-local goods, has not only decreased but also increased (Table 5). As we can see in this table, people in the cities under study have different consumption patterns, mostly in 1986 compared to 2006. Thus, in spite of being the central market for rural products, they cannot prepare all of the high quality commodities needed.

Table 6. Why do you live in this city?

1	Because I have a good job.	50
2	Because it is a convenient place to live and work in.	30
3	Because it is my homeland and I have to live with my relatives.	156
4	Cases 1 to 3.	94
5	I have not other options I have to live in this city.	170

Source: field research by the author (2006)

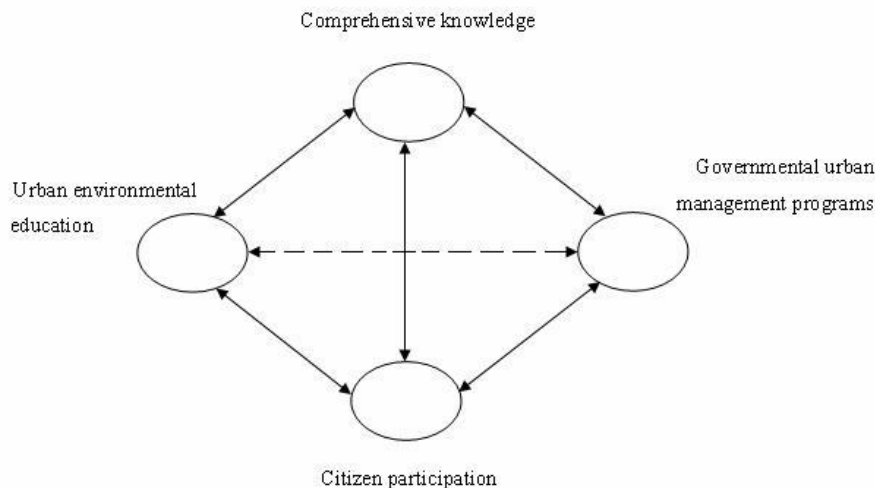


Figure 1. Integrated Urban Management in Small Cities (adopted from: Menegat 2002).

Also, as shown in Table 6, the living desirability rates of these cities are low and from among a sample of 500, 170 cases are forced to live in these cities. It can be because of the unsuitability of settlement for living and working. So it seems that these cities are inconvenient places especially for their new generation.

Conclusion

If we want to improve the function/effects of small cities so that they may help sustainable development systematically, we can suggest a plan which is a system based on four interrelated components (Figure 1). However, the feasibility of this proposition will depend on the cultural, administrative and political situation/structures of Iran. The components of this plan are: citizen participation, governmental urban management programs, comprehensive knowledge of small cities' natural and built environments, and urban environments education.

The underlying premise is that programs and activities implemented within each component should also consider the principles of other components in order to enhance their own effectiveness and benefit from integration with other components. On their own, both central and regional governments have difficulties in making the

turn to sustainable settlements. Of course, as pointed out by Henderson and Wang (2007) political institutions play a key role in this case.

Cities are the main places from which changes for decrease dangers of affecting human living conditions may begin. Among regional-urban systems, small cities are located between large cities and rural areas with a low population of about 50000 dwellers, and their functions and relatively motive roles help urban sustainable development, if urban planners and authorities have noticeable awareness that the possibility of integration and communication of these cities has to be improved.

According to the outputs of this study (Fanni, 2003) on three small thinly populated cities in Khuzestan Province, Iran, it is found out that they could provide sector employment especially for agriculture forming open markets as an opportunity for the surrounding towns and villages. For example, Ward (2005) explains that he has watched the way in which urban renewal, sparked by such small changes as a new bus stop, or an open-air market, or a park that opens new fields for the young, can build up into a changed community in which one small local success leads to new opportunities to be grasped locally, in ways that do not occur to the would-be managers of urban transformation. However, the effects of globaliza-

tion have not yet influenced these cities. They have not embarked upon root changes in their economy, society and culture; therefore, they still use natural materials and create low damages for the environment and the historical centers compared to the crowded cities of Iran. In addition, this urban scale with a decentralized structure of administrated, socio-economic help balances the distribution of population and the consumption pattern. It can create a suitable and adaptable urban structure which is an important factor to achieve sustainable development in national/regional levels.

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