An assessment of the social and economic impact on the growth of small towns surrounding areas

(Case Study: Sistan)

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Abstract

In recent decades developed countries have paid special attention to the small towns close to the location of agricultural production because it can be a place for job creation, small towns, as well as stations rural migrants of the villages and the cities of middle interaction the smallest element settlement levels of interaction with the major role in the development of national, regional and regional contribution balance to the national space. This paper includes an assessment of the social and economic impact on the growth of small towns surrounding areas using the AHP model. AHP method for assessing the benefits of the use of quantitative and qualitative indicators simultaneous, compliance control capability, judgment and ability to work heavy components to assess the comments group of the city selected by. In this paper we describe research - an analysis based on library research and study a questionnaire is a field. The results of the model (AHP), in the Sistan area if A> D> C> B show that . Thus the index of A (quality of life) ranked 1, D (dynamic and rapidly changing demographics) ranked 2, C (changes in attitudes, behaviors) in Grade 3 and B (income) is ranked 4th place.

Keywords: social and economic impact, small towns, surrounding areas, Sistan

Introduction

Towns and cities place in space planning in developing countries, urban development forms part of the strategy. International experience in this field is indicated by the fact that pledged support to solve the problems of the big cities, small urban centers is serious. The regional distribution of rural development centers have been established by small towns (Dashty Brnjah, 1993: 2). In recent years, with the rapid and unprecedented growth of cities in developing countries, emerging issues related to the shortage of housing units, and high levels of unemployment and other problems, many the basis of researchers from the emphasis on the proposed planning the dynamics of towns be prepared. Proponents believe that reinforcement role in the development of small towns small towns can be developed into a rest area and established a balance in the region (Shkohi, 2004, 413). Large cities in developing countries with middle and small cities discontinuity with the highest growth potential and most surfaces, excellent service, social and economic account. However, in small towns and mid with poor communication with the communities surrounding the areas below the form itself, be enough to become marginal and dependent coverage are on the space of the National (Bagheriha, 1996 2).

Across the central role of cities in developing countries, the emergence of small and medium-chain network, in which the central town or village, or even directly associated with the main metropolis of (Hsamyan, and others, 114:2006).

Among the problems that need to pay attention to how clearly define the role of small towns is as follows:

- Unbalanced spatial distribution of population
- The immigration procedures rural to urban areas, especially large cities
- Lack of distribution facilities and services
- Capture opportunities and economic forces in favor of big cities and small towns to the detriment of the mother city and region
- Procedures uneven growth of large cities and urban networks.

Definition of a small town

Several explanations have been offered the small towns that due to the diversity of the characteristics cities. According to the UN definition of a small town where all cities have a population of fewer than 100 thousand small town called but in every nation and region of the circumstances demographic, social and economic differences be (Engineering, 2003, 14).

Also features some of the small towns is as follows:
1. In the last level of a country's population is urban network
2. The main activities of the town's agricultural and service sectors, most industries and small in scale to be seen in them
3. 3. in a rural area of influence agricultural production and marketing in order to create an organizational role
4. Its population of 50 thousand people the best threshold could be between 25 and 50 thousand people (Taghva and Rezaei, 2008: 40).

The UN World Cities Study, population norms regardless of the activity that manufacturing and utilities provided include:
1. Rural town (under 25,000 people)
2. Small town (25 to 50 thousand people)
3. Medium of small (50 to 100 thousand people)
4. City medium (100 to 250 thousand people)
5. City Medium Large (250 to 500 thousand people)
6. Large cities (500 thousand to one million)
7. Big city or metropolis (one million and above) (Habib, 89:1999).

Here from towns, cities as defined by the United Nations Population between 25 to 50 thousand of them and has some functions such as urban retail, marketing, and transportation center of the local government.

Theoretical
City
Provide a general definition of the characteristics be all in all cities of the world, it is difficult. Researchers from different disciplines any specific knowledge of the various definitions of the city are supplied. Here are some definitions refer:
- Fr. Von Richthofen "City, a community of people in a given location is non-agricultural activities in their everyday life, particularly through the provision of business and industry."
- Jean Brunhes and Pierre de Fontaine City is where the majority of the population in urban areas spends much of their time.
- Max Sorre: "City life is the perfect model of a tall chest of rural communities" (Zabardast, 5:2004).
- The population of the city is where non agricultural jobs.
- In the face of the city where housing, behavior, income, urban landscape and garment may vary with the village people.
To geographers, city streets artificial landscape, buildings, machinery, and buildings that make urban life possible.
Geographers, the city does not count as a separate unit and its interaction with the region and the nation are studied.
Overall, the definitions mentioned above, however, does not seem to be any reason it should, perhaps, be attributed to urban characteristics.

This specification can be in terms of population, area, jobs, public relations, public amenities and facilities, office and industrial and commercial factors, texture and structure, to create images of the city in mind. The truth is somewhere in the city, with a population trained in administrative services, banking, education, healthcare, industrial and large factories, the lifestyle of the rural community (Shia, 6:2010).

Area of influence
You could say that every phenomenon in the hinterland (towns or villages) are functions require space to function space of the same phenomenon and field specific (urban or rural) and belong to the area of phenomena is another. In other words, the area around the city is a part of the requirements that both services and goods provided by the city.
The extent and function of the radius of the city, the city rank hierarchy of cities or geographical factors such as uneven terrain and ultimately determines the ease of access. Furthermore, the closest distance to the next town in the hinterland of a city can be effective (Rahnmai, 60:2003).

Hinterland of the city reflects the influence of socio-economic, cultural, political, a town in the countryside, rural-urban, town, small towns and cities. This field is modified by increasing the distance to reach the border town almost disappears (Rahnmai, 53:2003).

Literature
And the idea of the functional impact or the small towns in the area and local discussed for the first time in 1970 with “work” Johnson began with the topic “Rural Development Centre” Fanl continued in 1976.
The two met in the early 1980s to test the functions of the Agency for International Development began a project that was experienced in several countries and to help reduce rural poverty and increase the production of the functions of rural income municipal (mainly the nearby towns), rural areas (Fani, 2003: 13).
Hansen (1980) are among the researchers who conducted the studies with small towns and theories of His early studies were obtained from a study, which aims to achieve third world countries, growth and justice, it is necessary to can play the role of middle and small cities and economic development, justice and welfare to throw together (Mohammad Tyikanlve, 2002: 93).
Ligale (1982) The role of small towns in the development of the African National came to the conclusion that the central role of cities in the rural areas as driving development centers in rural areas are are considered to (Ligale, 1982: 9).
Hardoy and Satterthwaite important towns in third world countries as political and administrative centers, service providers and rural areas of data management centers - have (Hardoy and Satterthwaite, 1986: 9), Satiran project in Iran (1977), considering towns as the main cause of environmental balance rural community has been proposed. The first five-year development plan (1990-94) to accelerate the development of small towns and mid metropolitan growth and decline rapidly as the population has been seen as an important factor in the balancing exercise.
In the second (1995-99) and economic development - social, cultural, (2000-04) to support small and medium-sized cities in the metropolis has been developed with an emphasis on prevention (Zabardast, 58: 2003).And technical. (1996) the role of small towns in the area a (Khuzestan) is studied and concluded that this kind of balance in the distribution of population in urban areas are effective (Fani, 1996).
J u .Umo also the study of small towns and mid as a development strategy in the Third World needed to reach the logical system settlements in these countries has expressed the need to consider strengthening these centers led to the development of villages is (Umo: 1983: 9)

Area of study
Sistan region with an area of 15,197 sq km in the geographic range between 30 ° C and 5 minutes to 31 degrees 28 minutes latitude and 60 degrees 15 minutes to 61 degrees 50 minutes longitude in southeastern Iran and the northern part of the province and Balochistan by about one eighth of the total area allocated to the
province. Average annual rainfall in the region 6/59 mm, mean annual temperature of 22 °C and the average annual relative humidity is 38 Drsdmy. According to the classification criteria land Domarten 9/1 is classified as Frakhshk areas. One of the hallmarks of the region, which winds 120 days in the mountains between Afghanistan and plain air pressure, occurs. The wind almost from early June starting at about 4 months of the year continues in Zabul plain and almost Dravst September (late August) is terminated.

Materials and Methods

The issues of decision variables related to problems in the real world, more and qualitative variables are interactive. These variables must be converted to numbers, mathematical decision models are applied to the decision making several models exist in between the multiple attribute decision making model (MADM) is noted. Technique (AHP) by Prof. Thomas L. Saaty in the late seventies. Passion is presented. This model is one of the best multi-criteria decision making models and it is great. This method is the most comprehensive system designed for multiple criteria decision making, because this technique to formulate the problem and provides a hierarchy of qualitative and quantitative indicators, as well as to consider the issue. Accordingly, this paper introduces the study area, indicators were selected by the study were analyzed in three stages.

Finally, a scheme of priorities the-current criteria for the use of the AHP model has been done. The population of this study consisted of managers and planners. Random sampling and systematic sampling using Cochran formula and 150 is chosen to collect data from questionnaires, use of library resources and Internet sites.

All data gathered originally collected and subsequently processed by Excel software Expert Choice Software is analyzed.

For an assessment of the social and economic impact on the growth of small towns in the surrounding area using AHP method has the following steps:

A) Depicts the hierarchical tree
B) Set out the principle priorities
C) The logical consistency of judgments

First, the problems of converting a hierarchical structure that includes a three-level hierarchy of objectives, criteria, and be choices are (Figure 1).

![Figure 1](image1.png)

**Figure (1) position in the region, Sistan-Baluchistan province(authors, 2013)**

**Indices of urban identity**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic and rapidly changing demographics</td>
<td>Changes in attitudes, behaviors</td>
<td>Income</td>
<td>Quality of Life</td>
</tr>
</tbody>
</table>

![Figure 2](image2.png)

**Figure 2: Components of a hierarchical structure evaluation and assessment of city managers, Source: authors, 2013**
The index of indices:

Comparison matrix to determine the binary parameters \( (a_{ij}A) \) (questionnaire results and their importance and expertise of specialists in this field is used.

Table 1: Matrix A couple of indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>A</th>
<th>D</th>
<th>C</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>1/2</td>
<td>1</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>C</td>
<td>1/3</td>
<td>1/2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>1/6</td>
<td>1/3</td>
<td>1/5</td>
<td>1</td>
</tr>
</tbody>
</table>

Source (authors, 2013)

Matrix pair (two for binary) index is obtained as follows:

It is to fill this matrix; scale of 1 to 9 is used to determine the relative importance of each element relative to other elements.

Table 2: 9 Saaty scale quantitative comparison of binary options

<table>
<thead>
<tr>
<th>Intensity of importance</th>
<th>1</th>
<th>3</th>
<th>5</th>
<th>7</th>
<th>9</th>
<th>2-4-6-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Equal importance</td>
<td>Weak importance of one over another</td>
<td>Essential of strong importance</td>
<td>Demonstrated importance</td>
<td>Absolute importance</td>
<td>Intermediate values</td>
</tr>
</tbody>
</table>

Source: Field Studies Scholars

After forming the matrix of paired comparisons and values should be the norm. For this purpose, the value of each column of the matrix corresponding to the sum will be divided.

Table 3: Paired comparison matrix normalized relative indicators and weights

<table>
<thead>
<tr>
<th>Indicators</th>
<th>A</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0/500</td>
<td>0/522</td>
<td>0/484</td>
<td>0/400</td>
<td>0/477</td>
</tr>
<tr>
<td>D</td>
<td>0/250</td>
<td>0/261</td>
<td>0/323</td>
<td>0/200</td>
<td>0/259</td>
</tr>
<tr>
<td>C</td>
<td>0/167</td>
<td>0/130</td>
<td>0/161</td>
<td>0/333</td>
<td>0/189</td>
</tr>
<tr>
<td>B</td>
<td>0/084</td>
<td>0/087</td>
<td>0/032</td>
<td>0/067</td>
<td>0/068</td>
</tr>
</tbody>
</table>

Authors Source 2013

The logical consistency of judgments now the same steps for all choices of \( (a, b, c) \) we do. This step must be calculated to determine whether the inconsistency rate between paired comparisons we are compatible or not. Here are just a couple of inconsistency rate for comparisons of account we choices of similar operations to be performed on every indicator. Inconsistency rate can be obtained from the following relationship be:

\[
I_{...R} = I_{I...R}\
\]

Inconsistency rate (IR): the table below is extracted:

<table>
<thead>
<tr>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>( I_{...R} )</td>
<td>0</td>
<td>0</td>
<td>0/58</td>
<td>0/9</td>
<td>1/12</td>
<td>1/24</td>
<td>1/32</td>
<td>1/41</td>
<td>1/45</td>
<td>1/45</td>
</tr>
</tbody>
</table>

So the inconsistency rate calculations in the present study, 0/04 is .Since \( IR = 0.04 / 0 \) smaller than 0/1, then the paired comparisons , there is a remarkable consistency.

All calculations of the eigenvector (eigenvector) is carried out .In the questionnaire, and explain briefly introduce the measure compiled and presented in Table values for comparison of paired preference, paired-comparison was requested to be completed. The sample questionnaire, and program managers are urban planners. After collection, analysis and verification questionnaire, the following results were obtained:
Table 4: Classification criteria priorities of urban identity, urban planners and managers

<table>
<thead>
<tr>
<th>Weight</th>
<th>Criterion</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/477</td>
<td>Quality of Life</td>
<td>A</td>
</tr>
<tr>
<td>0/259</td>
<td>Dynamic and rapidly changing demographics</td>
<td>D</td>
</tr>
<tr>
<td>0/198</td>
<td>Changes in attitudes, behaviors</td>
<td>C</td>
</tr>
<tr>
<td>0/068</td>
<td>Rate of incoming</td>
<td>B</td>
</tr>
</tbody>
</table>

Source: Survey Results

The results showed that the index of A (quality of life) ranked 1, D (dynamic and rapidly changing demographics) ranked 2, C (changes in attitudes, behaviors) in Grade 3 and B (income) ranked 4 will be.

Conclusions

Potential capacity of small towns that they are able to form different to create balance in the region. They have experienced different countries in this regard. With the development of small cities and non can migrate to the metropolises procedures to prevent, reduce and largely concentrated in large cities such problems in the cities of High. This paper includes an assessment of the social and economic impact on the growth of small towns surrounding areas using the AHP model. AHP method for assessing the benefits of the use of quantitative and qualitative indicators simultaneous compliance control capability, judgment and ability to work heavy components to assess the Comments group of the city selected by. In this paper we describe research an analysis based on library research and study a questionnaire is a field. The results of the model (AHP), in the Sistan area if A> D> C> B show that. Thus the index of A (quality of life) ranked 1, D (dynamic and rapidly changing demographics) ranked 2, C (changes in attitudes, behaviors) in Grade 3 and B (income) is ranked 4th place.

Complaints

- improve service delivery and reduce migration to cities
- Career opportunities in small towns.
- Develop and strengthen local economies of small towns, small industry
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