

# Assessment of Development Level of Sistan and Baluchistan Province Compared to other Iran's Provinces

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**ABSTRACT:** Development and progress are ideals that always different countries have pursued. Everybody welcomes a developed country with people free from development obstacles. Indeed, realization of such a goal requires developmental planning in national and local scales taking into account the population growth rate, economical, social, cultural, and political problems, and generally, imbalances and dualities from which the whole country suffers. Hence, it seems inevitably and vitally necessary to pay attention to regional planning in Iran, and, more rapid growth and development of the country can be achieved with the aid of such planning and through growth and flourishing of different regions commensurate with their capacities and capabilities. The current paper is attempted to comparatively assess the performance and efficiency of Iranian provinces in terms of development level using Taxonomy and Morris models. It also aims at analyzing statuses of Iranian in terms of inequality extent in enjoying development benefits using standard score method. The research results are suggestive of the fact that Sistan and Baluchistan Province assumes the lowest rank (30th among the 30 provinces) in all three methods under study. Due to presence of some obstacles and lack of proper grounds, it is an inevitable necessity to rethink and make fundamental planning in this respect.

**Keywords:** *Development, Taxonomy and Morris, Sistan and Baluchistan province, Iran.*

## INTRODUCTION

Developmental inequality of regions is among the recently emerging issues in regional and areal planning literature but its status has not been clearly specified in our country. These inequalities -which can be caused by numerous factors such as historical, social, economical, geographical, demographical, and political reasons – are followed by inhomogeneous and imbalanced growth among regions and areas (Mansouri Sales, 1996). Thus, general goals of regional planning and/or economical development are establishment of social justice and distribution of welfare and wealth among the individuals of society. To achieve the aforementioned goals in any society, different programs need to be prepared, codified, and ultimately, implemented because appropriate and just distribution of facilities and achievements of development among the majority of population in a region, area, or country is one of the characteristics of viable and sound economy. Accordingly, planners intend to mitigate the hiatus and inequalities through preparing deprivation-alleviating programs (Ramazani, 1987).

Generally, development is a dynamic phenomenon and does not exclusively belong to a certain time and place and is not restricted to specific society. In a better statement, economical development is a process in which a series of fundamental transformations and changes occur in economical, social, cultural, and political structures of the society (Sadeghain, 2008). In this regard, planning, as an effective element of management, is a tool that can define ideal objectives for the future to achieve the desirable development through a critical view to the status quo. It is also able to make the society successful in the way to reach the desired goals through assessment of selective measures. In urban environments, planning is manifested as urban development process. Therefore, in development discussions particularly for sustainable development which has emerged and gained remarkable attention in the recent decades, three factors constituting the sustainability of development shall be taken into account: Economical factor in the form of increase in people's revenues through economic production growth and increase of job openings; Social factor through provision of social welfare and promotion of citizen's living level; and environmental factor through creating clean and salubrious environment free

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of pollutions for protecting life quality. Yet, availability of a logical and codified method for assessing the concepts is among the unavoidable prerequisites for any analysis and planning and then control (as a major element of management).

Consequently, in the modern era when countries are exceedingly developing worldwide, it seems necessary to get aware of country's development status for pursuing the development goals and presence in the global competition arena. Sistan and Baluchistan Province with an area of 181758 square kilometres and a population of 2405742 persons in south-east Iran is the vastest province of the country following political divisions which split Khorasan Province into three provinces, (Razavi, Northern and Southern). This province occupying 11.16 percents of country's area only is inhabited by 3 percent of total population.

Based on findings of the first report on Iran's human development in 2008-2009, Sistan and Baluchistan province is ranked the last in comparison with other provinces in terms of human development indices. Specifically, the province has assumed the worst condition in terms of poverty index which represents the level of deprivation in three aspects namely, life span, education level, and revenue. Severe poverty and deprivation especially in rural areas and extremely low population density as well as intense scattering of populated centers have caused the investment in this region economically unjustifiable. And, compared to other provinces, less investment has been made, and as a result, less productive employment opportunities have been provided.

In addition, certain problems take place in this province due to its specific geographical situation; illegal transactions and smuggling are instances of these problems. Although long coastal and terrestrial borders are potentially regarded as advantages of the province, but it negatively affects creation of productive employment as long as no rigorous planning is imposed regarding the border deals. Failure to properly and suitably benefit from the potentials of the province has led to restriction of job creation capacities. For example, provincial capabilities in development of foreign trade activities are by far larger than the current status. Appropriate exploitation from these capacities to a great extent pertains to decision-makings in national level.

Accordingly, development level of Iran's provinces - specifically position of Sistan and Baluchistan -Province will be analyzed using indices for comparison of development status.

### Literature Review

Bayer, Clark, Hirshman, Myrdal, and Rostko considered development a fundamental transformation from old (traditional) society to the modern society (Serzdadi Bayer, 1979). In this respect, various researches have been conducted on evaluation and comparison of development in different residential regions and locations.

In 1994, through analyzing the social-economical and historical

factors as well as role of governments in regional development of Atlanta and Portland cities during a 30-years period, Nelson Arthur et al. concluded that Portland city is more economically thriving through highest level of economical investments had been made in Atlanta region. Management and coordination in regional development programming of Portland city is the reason for urban revival of this region compared to the other regions (Arthur et al., 1994).

Bhatia and Rai (1997) Using 23 indices with the aid of numerical taxonomy and factor analysis techniques, determined the development level of 380 blocks in 32 regions of India in 2001. They introduced 56 blocks as developed, 156 blocks as relatively developed, 116 blocks less developed, and 52 blocks as underdeveloped.

For evaluating inclusion and inequality indices in Iranian cities, Housing Economy Office of Housing and Urban Development Ministry selected 27 factors including employment percentage, unemployment rate, burden, divorce to marriage ratio, etc and determined rank of each province in the country as well as rank of each city in the associated province and also in the country. Furthermore, numerous researches and studies have been carried out on identification of deprived regions and assessment of inclusions and deprivations for regional development, and, measurement of development level in international, national, and provincial scales.

Afrakhteh (2003) in a research entitled "Assessment of Role of Cities in Regional Development, Case Study of Sistan and Baluchistan Province" reached to the conclusion that, despite of structural impairments, cities of Sistan and Baluchistan Province undertake a substantial role in organizing and encouraging the regional development. Therefore, it is a necessity for regional development to support their functions. Mesrinejad and Turkey (2004) in a research entitled "Determination of Educational Underdevelopment Level of Iran's Provinces (Numerical Taxonomy Technique)" inferred that Khorasan and Sistan and Baluchistan Provinces with underdevelopment indices of 0.436 and 0.987 were respectively identified as the most developed and the most underdeveloped provinces of Iran while in 1991 Yazd and Kurdistan Provinces were respectively the most and least fruitful provinces of the country in terms of educational development.

Sorkhkamal (2008) Studied development level of cities in Khorasan Razavi Province in 84 social, economical, cultural, etc indices using numerical taxonomy model and several other models as complement with regard to evaluation of development and regional ranking. His research findings are indicative of the fact that spatial structure of Khorasan Razavi Province consists of two parts: core and periphery. Mashhad city plays the role of center over the province and other cities of province act as the periphery for the core. Thus, it is inevitably vital to take into account the spatial planning, identification and prioritization of deprived residential areas for fundamental programming and proposing appropriate and applicable strategies in order to attain balanced regional development and progress.

## MATERIALS AND METHODS

The method applied in the current research has an analytical-quantitative approach. The geographical domain under study is the Iranian provinces with a surface area of 1628750 km<sup>2</sup> and population density of around 43 persons per square kilometer. Of course, the research emphasizes on the status of Sistan and Baluchistan Province among the other provinces of the country. The required data were prepared as documental-theoretical records (library, etc) and through using statistical resources including results of nationwide population and housing census in 2006. Part of information was also collected from detailed results of nationwide agriculture census in 2003. Taking into account the importance of indices and limited access to them and also due to the fact that complete acceptance of indices by experts was a difficult and occasionally impossible task, it was attempted therefore to utilize general and international criteria. Thus, human development report in 1994 was the criterion for selecting the indices for the present study. Numerical taxonomy technique, Morris model, and standard score technique are among the methods used for studying imbalanced growth and development among regions of a country. Benefitting from the aforementioned methods, development levels of Iran's provinces were studied. Finally, Arc GIS software was used for data analysis and plotting the maps.

### The Domain under Study

Sistan and Baluchistan Province with an area of approximately 181758 km<sup>2</sup> is the vastest province of Iran. It is one of the most thinly populated provinces of the country. This province borders Southern Khorasan Province and Afghanistan in the north, Pakistan and Afghanistan in the west, Oman Sea in the South, and Kerman and Hurmozgan Provinces in the west. This province is composed of 14 cities according to the last changes: Iranshahr, CHababar, KHash, Degan (with Gelmurti as Capital), Zabol, Zaboli, Zahedan, Zahak, Saravan, Sarbaz (with Rask as capital), Sib suran (with Suran as capital), Konarak, Miankangi (with Dust mohammad as capital), and Nikshahr. This province consists of 40 districts and 36 towns. Zahedan with a population of more than 567,000 is the largest and most populous city and Rask is the least populated city with a population of only 1047 persons. Geographical location of Sistan and Baluchistan Province is shown in the following map.

### Indices

Development is a multi-dimensional concept and requires changes in all structures of society. Therefore, the definitions proposed for development are diverse and different depending on the interpretations and attitudes of individuals. Plenty of indices have been offered for measuring the development, all of which are reflective of development level. Many indices can be proposed if development is treated as an objective and its product is supposed to be fulfilment of human's essential needs either material or spiritual. According to what discussed above, remarkable number

of criteria and indices can be applied for evaluation of development level (Drama et al., 1992). Thus, the current research tries to select all the indices whose statistics and information are available. The indices used here are presented in Fig.1.

### Research Indices

- Ratio of houses having piped water;
- Ratio of families having telephone;
- Rural clinic for each 5000 persons of rural population;
- Rural nurse and midwife for each 1000 persons of rural population;
- Ratio of villages having bathroom;
- Ratio of villages having piped water;
- Ratio of villages having electricity;
- Average population growth;
- Urban residence percentage;
- Ratio of teachers to high-school students;
- Ratio of the literate persons;
- Ration of educated women over 6 years old;
- Ratio of literate persons with higher education to all literates;
- Ratio of villages having telephone;
- Ratio of employed persons in agriculture sector;
- Ratio of educated employed persons in agriculture sector;
- Ration of industrial employees to all employed persons;
- Employment Percentage;

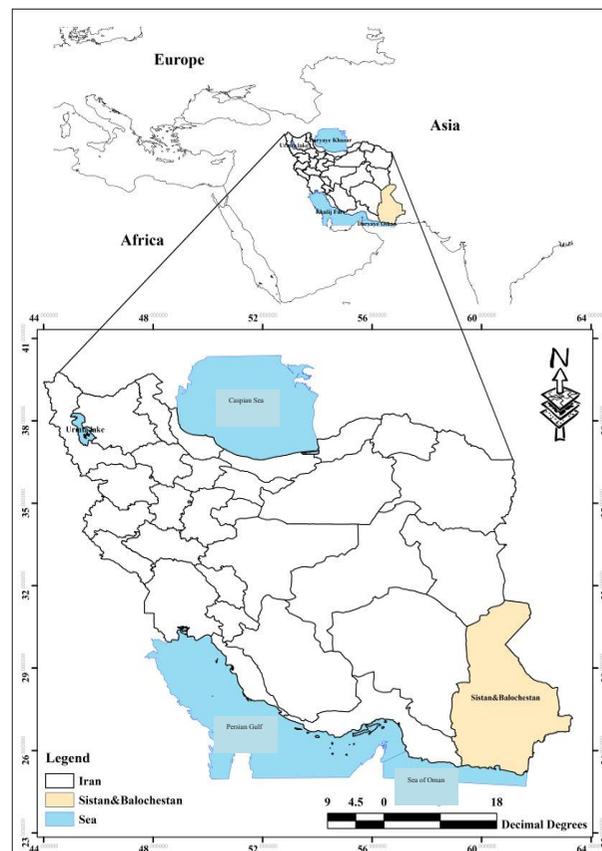


Fig. 1: The location of Sistan & Baluchestan province in Iran

- Number of doctor for each 1000 persons;
- Number of hospital beds for each 1000 persons;
- Number of nurse and midwife for each 25 beds;
- Ratio of province's area to country's area;
- Ratio of employed women;
- Ratio of cultivated lands to the province's area;
- Ratio of total provincial routes to the country's area.

### Depiction of Research Models

In regional planning, certain methods shall be used for determining the homogeneous points and development level of residential points. Considering nature of this subject, a suitable method shall be applied; 3 methods will be introduced in the subsequent parts for this purpose.

**Standardized Score Technique** This technique is used for comparing indices and achieving a unit index out of combined results (Mohahmmadi, 2001). This technique detects degree of difference between districts and neighbourhoods. Standard score is obtained via the Formula 1.

Formula 1

$$SS_{ij} = \frac{X_{ij} - \bar{X}_i}{\delta_i}$$

Where:

$SS_{ij}$  : Standardized score of index "i" in region "j"

$X_{ij}$  : Represents value of index "i" in region "j"

$\bar{X}_i$  : Average of index "i"

$\delta_i$  : Standard Deviation of index "i"

In the next step, standardized score of each index for the regions under study are summed up and the product will be divided to total number of indices. The resulting score is the average of standardized scores in the regions under study. This average, as a unit index, value enables comparison of regions in terms of activity. (Formula 2)

Formula 2

$$SS'_{ij} = \frac{1}{n} \sum_{i=1}^n SS_{ij}$$

$SS'_{ij}$  : Development index for region "j";

n: total number of indices used

Where:

$SS'_{ij}$  : standardized score of index "i" in neighborhood or district "j";

$X_{ij}$ : value of index "i" in region "j"

$\bar{X}_i$  : Average of index "i"

$\delta_i$  : Standard Deviation of index "i"

In the next step, standardized score of all indices under study in each province will be summed up and the product will be divided to total number of indices. The final score is the average of standardized scores or development index of provinces

which enables comparison in terms of development status;  
 The Formula 2:

Where:

$SS_j$ : development index for province "j";

And "n": number of indices

### Morris Inequality Index

Civil program of United Nations has applied a model for grading regions in terms of development (structural-human) using three indices; life expectancy, literacy rate, and per capita revenue for rating 130 countries of the world. It is known as Morris model or human development index (HDI); this criterion distinguishes itself as the newest official model used in global scale and also has the capability of expansion and substitution in the planned spaces with different and diverse scales (Mesrinejad & Turkey, 2004, 185). This is one of the effective methods for logical combination of evaluation indices of regional development.

Morris technique specifies the development level using the following two parameters along with descriptive data of each residential unit in comparison with other units:

Morris inequality index which is calculated through the Formula 1.

Formula 1

Where:

- $y_{ij}$ : inequality index for i-th variable in j-th unit

- $x_{ij}$ : i-th variable in j-th unit

- $x_{ij \min}$ : minimal value of i-th variable

- $x_{ij \max}$ : maximal value of i-th variable

The significant point in this technique is that the indices used must be aligned in the same direction. To verify the matter, all respective indices are applied in the frame of the aforementioned Formula 3.

Formula 3

$$D.I. = \frac{\sum_{i=1}^n y_{ij}}{n}$$

D.I (development index) is the main development index calculated through the formula in which n represents number of indices under study. Morris development index coefficient varies in the range zero to 100; the closer to 100, the higher development level (Mesrinejad & Turkey, 2004, 153).

### Numerical Taxonomy Analysis

Lexicological meaning of taxonomy is classification. Taxonomy is a general term and refers to all methods that separate similar items from non-similar ones and classify them into distinctive groups. Numerical taxonomy analysis is certain sort of these methods. Numerical taxonomy is a method used for classification of subjects or events. The elements constituting events and subjects that are categorized in the same group possess the maximal similarity or proximity: in other terms, the differences are minimal between internal elements of a group, and, are maximal between elements of this group and those

in other group. Hence, groups normally represent clusters of events and subjects which are defined in terms of similarity or proximity of their elements (Bidabadi, 1983).

## RESULTS AND DISCUSSION

According to the calculations conducted based on Morris techniques, standardized score, numerical taxonomy, and development index of all Iran's provinces are evaluated. Analyses results indicate that development indices of provinces based on Morris and standardized score techniques fluctuate in the range 0.74 to 17. Yazd Province and Sistan and Baluchistan Province respectively

Last (30th) among other Iranian provinces (Table 1).

Table 1: Ranking of Iran's provinces in different aspects based on Morris and Standardized Score Methods

Province	Rank	Morris	Standardized
EasternAzerbaijan	9	.54	.54
WesternAzerbaijan	24	.42	.42
Ardebil.	16	.46	.43
Esfahan	3	.63	.63
Ilam	20	.44	.44
Bushehr	23	.43	.43
Tehran	6	.57	.57
ChaharMahalBakhtiri	21	.44	.44
Southern Khorasan	12	.50	.50
RazaviKhorasan	4	.61	.61
Northern Khorasan	26	.38	.38
Khuzestan	22	.44	.44
Zanjan	13	.50	.50
Semnan	2	.65	.65
Sistan and Baluchistan	30	.17	.17
Fars	10	.54	.54
Ghazvin	7	.56	.56
Qom	8	.56	.56
Kurdistan	17	.46	.46
Kerman	25	.42	.42
Kermanshah	19	.44	.44
Kohgiluyeh and Boyer-Ahmad	28	.37	.37
Golestaan	14	.49	.49
Gilaan	18	.46	.46
Lorestan	27	.37	.37
Mazandaran	5	.58	.58
Markazi.	11	.53	.53
Hormozgan.	29	.30	.30
Hamadan	15	.47	.47
Yazd	1	.74	.74

Based on numerical taxonomy analysis, development indices of provinces vary in the range 0.52 to 1. In this method, Yazd Province and Sistan and Baluchistan Province respectively possessed the first and last ranks (Tables 2 & 3).

### Capabilities and Restrictions for Development of Production and Service Sectors of Sistan and Baluchistan Province Agriculture Sector

Agriculture sector of province has a traditional structure despite of its all infrastructures i.e. farming, gardening, livestock, birds, and fish. Its productivity is low due to prevalence of traditional exploitation methods, water deficiency, scattered villages and dominance of local ownerships. However, some changes have occurred in agriculture sector adding to diversity of its activities in sectors such as fish farming. Comparison of province's share in national production of farming and gardening crops implies that the province plays a considerable role in production of certain gardening and farming crops in spite of restricted soil and water resources and dominance of specific natural conditions. Round 16 percents of dates production 14% of fodder plants, and 9% of kitchen garden crops, and total production of tropical fruits belonged to Sistan and Baluchistan Province. The province possessed the following ranks in production of different crops: tropical fruits: first; dates: third; onion: second; fodder plants.

### Fishery (Piscary)

Shrimp production is one of the potentials in Sistan and Baluchistan Province, which has gained special attention during the recent years. Based on the former studies, approximately 20, 000 hectares of lands in Chabahar City are susceptible of shrimp production, and, shrimp farming centers can be produced from twice a year. Development of this sector can create suitable job opportunities in addition to gaining exportation revenues.

### Industry and Mining

In the developmental studies of Sistan and Baluchistan Province, it is inevitably necessary to strengthen the industry and mining sector as an effective and efficient economical pole for responding to population requirements and job and revenue creation as well as industrial products needed for other sectors and also transformative agriculture, livestock, and packaging industries.

Geographical isolation, marginal situation of the province from main population centers and current Iran's development axis, low population density, scattered residential areas, unfavourable climatic conditions, deficiency of water resources particularly in population foci, and shortage of skilled manpower and infrastructures are among the most important limitations looming ahead of province's industrial development. Nevertheless, this province still features specific possibilities and capacities as well, which can reinforce foundations of industrial development in the long term and along with planned orientations. Special geographical location of the province due to adjacency with Pakistan and Afghanistan besides having access to free waters

Table 2: Ranking of Iran's provinces in different aspects based on Numerical Taxonomy Method

Province	Rank	Numerical Taxonomy
Eastern Azerbaijan	7	.65
Western Azerbaijan	22	.80
Ardebil.	16	.77
Esfahan	3	.57
Ilam	17	.78
Bushehr	25	.83
Tehran	20	.79
ChaharMahalBakhtiri	18	.78
Southern Khorasan	14	.77
RazaviKhorasan	4	.57
Northern Khorasan	28	.89
Khuzestan	19	.79
Zanjan	9	.71
Semnan	2	.56
Sistan and Baluchistan	30	1
Fars	6	.65
Ghazvin	23	.81
Qom	12	.73
Kurdistan	21	.79
Kerman	24	.82
Kermanshah	15	.77
Kohgiluyeh and Boyer-Ahmad	27	.88
Golestaan	10	.72
Gilaan	13	.76
Lorestan	26	.84
Mazandaran	5	.64
Markazi.	8	.68
Hormozgan.	29	.97
Hamadan	11	.73
Yazd	1	.52

of the world outside of Hormoz Strait, and possibility of communication with Eastern Asian countries, India, Arabic countries, and African markets provide unique opportunity for industrial development. The facilities and services provided by Chabahar's free trade-industrial region shall be kept in mind for future industrial development of the province.

Marine resources and fishery are other potentials of province's industrial development, which can serve as the grounds for establishment of chemical and maritime industries. There is also development possibilities in transformative industries associated with agricultural products.

### Mining Sources

Mining sources are among the potentials for industrial development of the province; many of province's mines can have extra-regional function. Non-metallic mines are good resources for production of construction materials; this industrial field significantly affects increase of the incomes in the region besides creating job opportunities.

This sector has assumed major portion of total employment and added value of the province in the recent years owing to impossibility of investment attraction in productive and industrial sectors as well as other particular features.

Growth of province's service activities originates from the fact that large percentage of available resources and facilities and capitals and human forces has been orientated toward easily-reached and early-return activities mainly to commercial services sector resulting from presence of obstacles and restrictions against production sectors.

Although Chabahar's free trade region has contributed to job are revenue creation for the local people but the policies are implemented in a way that public participation and native capitals can be scarcely attracted. Majority of executive agents and capital owners in this free trade region come from other regions of the country (ESGAEAO1, 2007)

### Studying Status of Employment and Unemployment as Major Development Components in Sistan and Baluchistan Province

Province's population has increased 2.5-folds within two decades (1976-1996). Population growth rate of this province in

Table 3: Ranking of Iran's provinces and position of Sistan and Baluchistan based on numerical taxonomy technique

Row	Development Status	Province	Number	Percentage
1	Developed (Enjoyed)	Yazd, Semnan, Esfahan, KhorasanRazavi, Mazandaran, Tehran, Qom, Qazvin, Eastern Azerbaijan, Fars, Markazi	11	36.6
2	Semi-developed (Semi-enjoyed)	Southern Khorasan, Zanjan, Golestan, Hamadan, Ardebil, Kurdistan, Gilan, Kermanshah, Ilam, Chahar-mahal, Khuzestan	11	36.6
3	Deprived	Western Azerbaijan, Kerman, Bushehr, Lorestan, Kohkiluye, Northern Khorasan, Hormozgan, Sistan and Baluchistan	6	26.6
	The most developed	Yazd		
	The most deprived	Sistan and Baluchistan		

the decade (1976-1986) equaled 6.06, being one of the rapidest growth rates in Iran. In 1976, province's unemployment rate was around 7 percents; this value ascended to 21 percents in 1986 due to rapid population growth. This marks peak of unemployment crisis in the province and "Development-based Plan of East" was ratified in the government administration for resolving this problem.

Population growth rate of province declined to some extent during 1986-1996 and reached 3.7 percents which was two times the nationwide figure (1.96 %). In 1996, province's unemployment rate (around 9%) approached average national unemployment rate. Unemployment rate of province increased to 17% in 1998 and 20.16% in 1999 while national unemployment rates in the two aforementioned years were 12.48 and 13.54 percents, respectively.

In 2006, population growth rate was 3%, and employment percentage in the same year was 24%. Taking into mind that employees of industrial sector are among the essential indices for evaluating development level in any region and area, unfortunately province's share in this field is only 5.7% which is a matter of concern and needs further studies and research.

Young population is one of the important factors that aggravate the unemployment problem. Altogether during the years, youth coefficient of population has exhibited an ascending trend; the reflection can be seen as disproportionate supply of work force and reduction of public welfare level for the province's population. In addition to various problems human force in quantitative view, the province also holds a low rank in terms of quality, education level, and skills of manpower. According to results of nationwide census (population and housing), literacy rates of the province in the years 1976, 1986, 1996, and 2006 were respectively 29.4%, 36%, 57.3%, and 68.3% while the respective figures for the whole country in the same years were 47.5%, 61.78%, 79.51%, and 90%. Also, according to official statistics, 79544 persons have registered as job applicants since spring 2000 up to September 2005; 68% of these individuals (54058) had no skill and 32% (25486 persons) had some kind of skill. Analysis of variation trend of manpower distribution in different economical-social sectors reveals the fact that contribution of agriculture sector has continuously decreased during 1986-1996. This share has declined from 56.4% in 1976 to 43.5% in 1986, 33.1% in 1986, and 15.5% in 2006. Compared to province's production sectors, services sector has generally grown, and, the commercial services sub-sector has had a remarkable growth in particular.

Share of commercial services subsector from total work force of province has increased from 6% in 1976 to 22% in 2006. Based on what discussed in the current paper, this province has not been unfortunately able to change its rank and position during the recent years. Both before and after the 1979 Revolution, Sistan and Baluchistan has ranked as the most deprived province of Iran. The question is that: why Sistan and Baluchistan, as the viable throbbing heart of south-east Iran and possession of great tourist capacities and peerless environmental attractions, is still suffering from extreme deprivation.

## CONCLUSION

Since determination of objective is the most important action in planning, based on appreciation and awareness of the current situation of regions compared to each other and their ranking in terms of enjoying development privileges, the most deprived areas and places shall have priority in deprivation-alleviation programs aimed at allocating credits and resources.

In other statement, according to what realized in the recent development plans, it is vital for mitigation of current inequalities to take measures for performing regional planning and avoiding local programs besides pursuing balanced and coordinated policies in creation of equal chances for all regions, decentralization from country's central provinces, and proportionate and just distribution of resources and capital for uniform development of our country. Hence, it seems obvious that deprived regions (level 2) have the top priority of social-economical development in regional planning, or in other words, the regions with more favourable conditions (level 1) have the second priority. Of course, it does not mean lack of attention to level 1 regions because in general our country's development indices are inferior to global level. Accordingly, promotion of general development level in the future planning is a crucial necessity.

Clearly, inequality prevails among different provinces of country in terms of development and the gap is completely evident. The important fact regarding reason of this underdevelopment is the governing approach on the national programming system during the last 50 years. Since decision-making criteria have been selected based on core-periphery model, the main development facilities have been concentrated in large cities especially in central provinces. On contrary, the deprived poles in terms of development are encountered in southern, south western and south eastern regions of the country despite the fact that many provinces in these regions feature very high capabilities and brilliant memoirs. Therefore, regional planning, whose primary objective is establishment of balance and equilibrium in social-economical development of different regions, is an unavoidable requisite.

Consequently, after experiencing different political-personal management trends and spending large deal of financial, credit, and human costs, essential bottlenecks and dilemmas against development of Sistan and Baluchistan Province still persist. This signifies underdevelopment and moving along the routes and cycles which never lead to the destination and make the collective life exceedingly face further difficulties and complexities. Thereby, it is regarded greatly essential and with high priority to pay attention to causes of continuity of anti-development cycles and routes.

Calculation results indicate that the first and last ranks in terms of development level respectively belonged to Yazd and Sistan-Baluchistan Provinces. Sistan and Baluchistan assumed the 30th rank in the all three methods applied in the present study. Hence, regional planning shall obviously pay attention to the provinces of deprived regions (level 2) as their top priority for social-economical development and developed regions (level

1) shall have the second priority. Of course, it does not mean negligence to first level regions because development indices in our country are lower than the global level. Thus, promotion of its overall level in the future programs is vital.

Finally, due to necessity of the matter and significance of regional balance establishment, some general recommendations are proposed as below:

Based on objective of the current research and taking into account the indices used, the following solutions are recommended:

Further attention to important economical institutions all over the province particularly Chabahar's Free Trade Region, Zabol's Special Economical Region, and provincial border markets in order to enhance shares of investment and direct employment (in commercial, services, and communications sectors) and indirect employment (in agriculture, industry, and mining sectors).

Entrepreneurship plays a significant role in economical development and job creation as a consequential issue; as SHUMPITTER, a prominent development economist says: entrepreneurship is the "engine of economical development". Unfortunately, the expected entrepreneurs have either immigrated nationally and provincially or are active in unofficial and occasionally illegal and brokerage sectors of economy; they hinder the economical development as obstacles rather than making any contribution to it.

Provision of financial facilities for self-employment in the form of long-term loans; for example, instalments for these loans can start from latter half of total loan duration and share of borrower and share of facilities with governmental guarantee shall be 20% and 60%, respectively; the rest of loan shall be granted without financial warranty.

Paying attention to subsectors which have job creation potentials in mining and industry sector; e.g. treatment of mining products, cement factories, exploitation from strategic mines such as white antimony ABE, and taking into account extraction of non-metallic ores

Creating suitable mechanism for facilitating the evaluation and ratification procedures of job-creating plans, and, reducing assessment time and also paying facilities to the applicants.

Granting special tax, interest, and bank share exemptions and lengthening payback duration of facilities granted by the government and banks to applicants of investment in the province

Establishing the needed security in different aspects (physical, economical, and social) so as to facilitate process of investment and job-creation development in the province

Strengthening and expanding the economical and cultural collaborations of the province in national scale intended to depict and spread investment potentials in the province.

Creation and development of required infrastructural, institutional and organizational capacities for maximal utilization of province's transit capabilities aimed at enhancing share of transportation and transit sector in improvement of employment and investment in the province

Accelerating in the process of increasing unloading and loading capacity of Chabahar Port from 2 million tons up to 60 million

tons; and construction of piers (wharfs) needed for giant ships and granting special exemptions for encouraging commodity importers and exporters to use Chabahar Port.

Increasing foreign exchange percentage of imports and exports in border markets and predicting special exemptions for encouraging usage of border markets and legal channels and elimination of underground and anti-employment economy in the province.

Paying attention to outstanding potential of province for playing role in national commerce and foreign transit between Europe and Central Asia, Great India, Eastern and Southern Asia and Africa Horn aimed at attracting a percentage of unemployed persons in the aforementioned sectors.

## ENDNOTES

1. Economical Studies Group of Assets and Economical Affairs Organization, Sistan and Baluchistan

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