Analysis of barriers to social and economic development of Zahak area (Sistan - Iran)

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Abstract: Zehak area still hadn't any framework with regard to organic of planning and policy, however, this area includes four districts Zehak, Kamak, Khaja Ahmad and Jazynak which Zehak is the center of mentioned area (Zehak). The city of zahak is located in the most eastern part of Iran, It bordered by Afghanistan to the East. The city is between latitude 30/45 to 31 and east longitude 30 and 61 to 50 and 61, the average height above the sea level is about 480 meters. According to studies there are two ethnic groups, Baluch and Persian in mentioned city. However, there are a significant number of other groups entitled as Afghans immigrants. In total villages, 84 villages equivalent 46/7 percent are Persians, 51 of villages or 25/5 percent of them are Baluch 47 villages are mixture of both. The number of rural settlement increased between years 1967 to 1977 from 107 to 156 pieces and have varied in different year, 1987 was 158, in 1375 was 215 and year 2005 was 210. One of the special signs of this area is plurality of settlements. Based on existed reports from total economic activists, 55 percent were employed in agriculture, 24 % in industry section and 20 percent in services section. Among the crops, wheat has about 60 percent, grain has 45 percent and other crops have 30 percent of self-consumption index. It determines the rate fluctuation of rehabilitation in the economy of the region regarding to the common patterns (Priority of the Agriculture). For achieving an economic growth coefficient with this assumption that everything has been done has not associated with a specific orientation, projects are intended which will mention.

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1. Introduction

Zehak still hadn't any framework with regard to organic of planning and policy, however, this area includes four districts Zehak, Kamak, Khaja Ahmad and Jazynak which Zehak is the center of mentioned area (Zehak). The city of zahak is located in the most eastern part of Iran, It bordered by Afghanistan to the East. The city is between latitude 30/45 to 31 and east longitude 30 and 61 to 50 and 61, the average height above the sea level is about 480 meters.

From geologically it has opened and closes Boreholes and small and large pits in different range which the largest of these closed pits used to store water and to create lakes that called Chah Nymeh.

The geology of this area is mainly based on recognition of the Quaternary (forth age) and in fact there is no significant difference between this area and the Sistan plain so that it is a part of Tectonically dents and is likely to be type of Grabon which is belong to the end of Tertiary and the early Quaternary, it is the Hirmabd river's sedimentation place.

This part acted as the basis for the Hirmand River and in the vast majority of it, the difference in height is barely 130 meters. Their slope gently is around which its general direction is from the southeast to the northwest. Existence of aqueous sediments and also the sand dunes are the morphological characteristics of this study area.
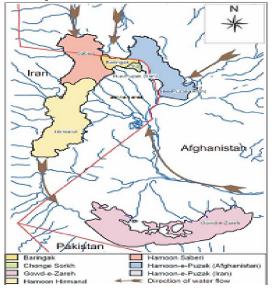
The climate of this area is arid and desert with absolute maximum temperature 46 ° C and minimum – 5/4 ° C and obtained average of temperature from synoptic stations equal to 20/8 ° C. Relative humidity of the area in early hours of the morning is about 70 percent and in afternoon is about 11 percent. The average annual rainfall is about 50/68 mm which their seasonal and annual variations are great.

The beginning of hot weather is from May to September and December and January are cold weather and November and March are temperate weather. Daily, monthly and annual changes in air temperature due to dry weather is very high in this area, the difference in temperature sometimes reaches more than 60 degrees. The sunshine hours in this area is over 3200 hours which the shortest is in January and the longest is in June. The other feature of this area is the 120-daywinds, which continues from early May to late September.

The average annual evaporation is about 4775 mm in Zehak Weather Station which June to September is the most significant.

Relative humidity is very low and in monthly average rarely exceeds up to 50 percent. This area is

located in the place of the interactions by high pressure atmospheric centers in the North-East and located in the place of relative low pressure centers in the South- East of Iran and the winds in this area affected by these interactions.

Map of zahhak region n.1

According to the estimations, in a ten-years period between the number of days accompanied with the dust and storms, this area with 1500 dusty days has high grade in Iran.

One of the important factors which have a significant affection in this area is 120-day wind in hot month of the year.
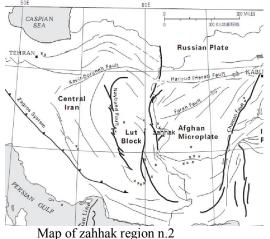
The main water sources in this area depend on Hirmand River which is exploited permanent (from Sistan River) or stored in Chah-Nymeh. According to the estimations, water storage in Chah-Nymeh is equivalent to 628 million cubic meters which Only 326 million cubic meters of water used and the rest of water assumed as dead volume.

Quality of the water is suitable for drinking and maximum and minimum ratio of minerals (or Solutes) respectively is 940 and 225 mg/ liter and it's degree of hardness reaches to 34 (maximum) and 8/5 (minimum).

In terms of lands availability, soils of study area are part of Arid Soils and Entisols classes, or its soils are young sedimentary and salty and dry.

generally the soil in this area lacks class I or its amount is limited but in the class II and VI have several limitations such as salinity, texture and sand dune, The amount of salt in the soil of this area is more than 32 Milliohms /CM with variable Sodium and the main causes of soil erosion in this area,

consider severity and impact respectively are water and wind erosion.

From vegetation perspective, according to the specific ecological conditions of region such as hot and dry weather, winds famous 120-daywinds, Texture and soil type, salty or alkaline soil, there is no considerable diversity of range land plants. Nevertheless, the major plant communities of this area includes: Tamarix, halophyte plants and species of Gulf plants.

Map of zahhak region n.2

Protected areas in Zabol, including Imam Ali natural parks, Chah-Nymeh and also historical places in Gholaman, Ghal-e now village, old Zahedan and some other places.

Areas with high incidence from natural disasters, including parts which are:

A) There are flowing sands such as South East of Zahak between Zahak and Mohammad Shah Karam, between castle Gong and Jazynak and also Zahedan-e Kohneh.

B) A part of the study area which located in river margin, is in flood risk.

2. Findings:
2.1. Social - cultural characteristics:

According to the latest census of population and housing, from total population people living in mentioned eparchy around 10,000 people live in the center of mentioned eparchy (Zahak) and the rest are living in about 200 villages.

Nomadic habitats are near the city of Zahak which has 60 households with a population of about 300 people. About 18 percent of total population of Zahak lives in the urban areas and the rest lives in rural areas.

Numbers domestic animals of Zahak include: 12,350 head of cow, 125,000 head of sheep and goats

and Camels: 380 and 25,000 people are farmers and gardeners and 10,800 people have livestock.

According to studies there are two ethnic groups, Baluch and Persian in mentioned city. However, there are a significant number of other groups entitled as Afghans immigrants. In total villages, 84 villages equivalent 46/7 percent are Persians, 51 of villages or 25/5 percent of them are Baluch 47 villages are mixture of both.

The most important social and cultural problems affected by external factors that some of them are related to ethnic and tribal texture and some of them related to economic conditions of rural and urban areas such as unemployment and smuggling.

Diagram of Population changes in mentioned area indicate a high population growth but environmental factors has led to displacement and migration. Totally the population in 1987 was about 30000 people and it was about 45453 in 1997 and in 2007 was about 61454 people.

The population growth rate swings between 3/1 to 4/8 which it is balanced by different factors such as changes in political boundaries and immigration.

The number of rural settlement increased between years 1967 to 1977 from 107 to 156 pieces and have varied in different year, 1987 was 158, in 1375 was 215 and year 2005 was 210. One of the special signs of this area is plurality of settlements.

Family size in the city was 4/7 % in year 1967, 4/8 % in year 1977, 5/4 % in the year 1987 and 5/7 % in the year 1995.

Relative density of population in city was 56/6 people in square kilometers which the lowest density is 23/8 people in square kilometers for Jazinak rural district, and the highest is about 108/5 for Khaje-Ahmad rural district. The density of population in this area especially in these three villages Khamak, Khaje-Ahmad and Zehak was 6 times more than province (Sistan and Baluchestan) which indicated the capacity of attraction and retain of population in certain condition.

The age combination indicates that the population of the youths is 48% and is in highest level. According to figures released from Health Care Centers the sex ratio was about 107/8 percent.

Birthrate has been swing 13.9 in thousand in Khamak village to 35.2 in thousand in Khajeh Ahmad village and the average of death rate has been 4.6 in thousand at county level that the major effective factors on spatial dynamics of population are drought, storm and dust and also flood and economic factors.

Based on the last census 62.4 percent of men and 48.7 percent of women are literate that the least belongs to Khamak and the maximum belongs to Jazink.

According to classification of villages based on population 95 villages have 1- 19 families (44.2 %), 72 villages have 20-49 families (33.5 %) and 30 villages (14%) between 50-69 families and 14 villages (6.5 %) between 100-249 families and 3 villages have(1.8%) more than 250 families.

2.2. Economical characteristics:

Based on existed reports from total economic activists, 55 percent were employed in agriculture, 24 % in industry section and 20 percent in services section.

Major economic problems of the region include:
- Low productivity level
- High transportation costs
- Non-availability to required primary sources for industries
- Dependence of the area to water that supplied from out of the border
- Lack of large consumption market
- Fuel and energy is expensive and rare
- Dependency on underground economy
- Activities is traditional
- High risk taking

Based on informal census 35 % of rural of the region has less than 100 dollar income and 55% between 100-200 dollar and 10% more than 200 dollar which indicates existence of poverty in the village.

According to consumption market, all production goods are self-consumption and level of imports and exports is negative compared to other regions of Iran. Milak is one of the three boundary regions which its export level is positive in Iran. Regarding wide economic and social activities, major governmental actions relate to creating water channel, road, telecommunication infrastructure, and expansion of fish culturing stations and developing boundary markets and inhibition of sand.

3. Results of economic studies:

3.1. Weak management of rural development

Unfortunately the most important factor for the lack of rural development at regional level can be known by being confused management in this part. the related cases to weakness of rural development in the area which are influenced by province conditions are lack of meritocracy, being non-related profession, weakness of decision, weakness of data and information, lack of information about accounting of economy development, weakness of finance resources, cost creation and cost incensement, improper identifying issues, domination of personal tendencies and etc.

Table 1. Indicators of social -economic

Area	Weak points	Strong points
Environmental	Lack of water Water fluctuation Dependency of livelihood to agriculture Salinity of well water High drainage level of water Existence of flowing sand Existence of 120-day dusty wind Weakness in plant covering Lack of underground water resources and mineral resources Salinity of soil Traditional methods of farming Wide wind and water erosion High evaporation and transpiration	existence of lakes even in seasonal form alluvial soil existence of proper and good slope availability of fresh water but limited existence of recreations and natural parks low risk of earthquake
Social-cultural	Low population of scattered villages High level of Family size Low level of literacy and skills High level of migration Low economic participation Weak management and civil participation	Domination of social norm Dominant of social common law Cultural homogeneity Social unity Existence of active and energetic human resources
Economic	Affection of transnational economy Being underground economic activities Domination of safety view toward boundary economy Dependency on livelihood agriculture Low skill level Wide unemployment Being under the influence of international economy Lack of investing Weak management of economic development Domination of governmental economy on infrastructure	Social Homogeneity and consumption interests Bilateral border trade Being wide range of economic boundary activities

3.2. Index of price

Different factors affect on price index that some of them are; Measure of stop investment, rate of cost-benefit and etc. For example index of price of gasoline as contraband and informal export compared to the price of wheat as produced goods changed 35 percent in a year while time of return of investment for wheat was 6 months and for gasoline was maximum 2 weeks. In addition, the price of wheat has not increase.

3.3. Index of costs of living

Index of cost of living at the regional level is different from national level. For example share of food and drink is less, due to accessing to tea and rice and also unwillingness to unnecessary drink (soda), clothes share is less than national share which has many reason such as entrance of cheap textile and low price sewing and on the other hand unwillingness toward fashion. Fuel consumption share is more than other places. In addition transportation share is about 2 percent more than national share. Health and care share is 1.5 percent higher than national share.

3.4. Index of self-consumption of crops

Among the crops, wheat has about 60 percent, grain has 45 percent and other crops have 30 percent of self-consumption index. Regarding to this matter that economical and social sections are stimulating of growth and development in this region. The exceptional criteria for model of economic growth of the region briefly include:

1. Efficiency
2. Profitability (Cost – benefit)
3. Employment (job creation)
4. Activity creation

In this method used general indices such as farm land, number of livestock and poultry, employees in different sections, employment of women and men.

Regarding to analysis, non-development index of village in the region is maximum 72 percent and minimum 13 percent.

For completing studies, another index was used as an index of advantage and relative potential or as an index of economic development.

It determines the rate fluctuation of rehabilitation in the economy of the region regarding to the common patterns (Priority of the Agriculture). For achieving an economic growth coefficient with this assumption that everything has been done has not associated with a specific orientation, projects are intended which will mention.

Considered factors for analyzing the region based on utilizing expertise opinions of region's programs and utilizing expertise opinions of Fourth Development Program and utilizing expertise opinions of development prospect with considering Justice-oriented indicators which have been ignored so far. The foundation of research based on opinions of people and responsible experts.

The considered framework for rural development of the studied area based on the following goals and strategies:

4. Major objectives:
-Reduction of environmental-social and economic vulnerability coefficient of villages and people.

-Increase of economic growth index and considering internal motivators

-Facilitating affairs of rural development

4.2. Subordinated objectives:
-Increasing employment

-Increasing of income

-Using of capabilities and environmental-social and economic sources

-Increasing investing index

-Reduction of governmental incumbency and reduction of executive role of administrative rural development.

5. Adopted strategies:
-Modernization of exploiting method of industries, agriculture, cultivation and livestock

-Increasing facilitating index via developing communication-physical infrastructure

-Developing and creating support constructs of production

-Development of ignored sections (tourism)

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-Helping and facilitating affairs related to economy and free border exchanges and its lubricating

-Encourage of people to the more participation in investing and also management and decision making

-Reduction of government role in productive affairs.

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