

## Study of outcomes of Bakhtiari Nomads habitation and Implications for livestock development in habitation centers (Case Study: ShahidGholippur at Shooshtar city)

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**Abstract:** This study aims to investigate outcomes of Bakhtiari Nomads habitation and implications for livestock development in habitation centers at ShahidGholippur at Shooshtar city. The current study is the type of descriptive – correlation studies which is practical in terms of objective. Research statistical community are heads of nomad households resident in ShahidGholipour city at Shooshtar pre-province with 350 households which 300 families were settled in the focus of development in the years of 1998-1999 and 50 families of nomadic tribes of mentioned tribe who were settled in the vicinity of development center of ShahidGholipour and migrated to countryside areas of Masjid Soleiman and Kouhrang in the summer. 108 heads of households as an inhabited member were measured as sample size using Cochran formula and 50 heads of households of the families uninhabited surveyed as census. The main research instrument was questionnaire and its validity was confirmed by a panel of experts and research reliability was confirmed by calculating Cronbach's alpha coefficient for different parts (0.78). Obtained results show that four factors almost explain 57.40% of the variance related to implications for livestock development in the region. These factors include access to productive services, reducing the risk of manufacturing, marketing and access to productive inputs. Study of implications of nomad accommodation shows that five outcomes explain almost 53.13% of the variance related to factors. These factors include cultural effects, production effects, social problems, leadership and employment.

**Key words:** *Nomads habitation; Consequences; Livestock*

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### 1. Introduction

Iran's society has been formed of tree urban, rural and tribal societies. The nomadic society is the constant motion in the nature for livestock and livelihood (Tavakoli and Ziatavana, 2009). In recent years, natural and economic fluctuations and drought increased the costs of livestock maintenance and these problems led to the loss or sale of livestock and their limitation. This situation has provided grounds for nomads. So the number of nomadic households are decreased day by day. Either nomadic tribes are either inhabited or the distance between the winter and summer areas is passed by car. On the other hand, sedentary lifestyle attractions increased in recent decades. Government investments in urban development plans have led to nomads willing to settlement which this issue causes the disintegration of nomadic system (MahdaviHajiloui et.al, 2009). Tribes settled in his native land formed homogeneous societies and have been merged into each other due to having common customs, culture and language with a native village. Those tribes that were of higher social classes settled earlier than all tribes. Because they have arable lands and facilities in the rural areas are easily

engaged in agriculture and animal husbandry agriculture and horticulture and their children have been absorbed into the villages and towns. Taking consideration better facilities for living, most of the tribes tend to settle in places that there is there are one or more family core of tribes or familiar rural households. Mass of tribes are first settled in rural areas and towns as colonizer and marginalized and then gradually absorbed by the surrounding communities (Dehghani et al., 2012). Annual growth of Iran's nomads population was almost 3%. According to 1998 nomadic Census, Iran's tribal population have been 1,304,089 people in 19,993 households (Statistical Center of Iran, 1998). According to the results of socioeconomic census of nomads in 2008, Iran's nomads constituted 1.68% of Iran's total population that has been decreased compared with the statistics of 1998 despite an increase in the number of tribal families. According to socioeconomic census of nomads in 2008, Khuzestan province has more than 140 thousand people of summer nomads in 23274 households, 14 tribes and 8 independent tribes. But it constitutes the highest nomadic population among the provinces. The contribution of summer nomads in Khuzestan according to the corresponding figure in the country has been 13.3 and 11.8% in the years of 1998 and 2009, respectively (Statistical Center of

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Iran, 1999). Number of households and population of Khuzestan nomads are presented in Table 1. Population of Khuzestan nomads in 2008 decreased compared to 10 years before as 12.2% and 19.9%, respectively. While in this time period, the rate of declined nomads population was 9 percent (Statistical Center of Iran, 2008), that one of its reasons was development of inhabitation centers of nomads in Khuzestan province.

There are 100 developing centers in Khuzestan Province, among which 13 centers, as scheduled, exist in Masjid Soleiman, Dezful, Andimeshk and Behbahan provinces and 87 centers spontaneously exist in Masjid Soleiman, Dezful, Andimeshk and Behbahan, Ramhormoz and Izeh Provinces (Raisizadeh, 2009).

Study designs and locating development centers of tribes settlement began in Khuzestan Province in 1992 which during the second and third development programs 6100 tribal households were inhabited in Andimeshk, Izeh, Shoushtar, Dezful, Shoush, Ramhormoz, Behbahan, Baghmolk, Masjid Soleiman and Lali Provinces in tribal areas and the number of one thousand and 50 families have been resettled during the years of 2005 and 2006 and until the end of 4<sup>th</sup> program, 37% of tribal families have been organized and it has been predicted that 2500 households will be organized until the end of 5<sup>th</sup> program (Raisizadeh, 2009).

After tribes have been settled in villages and towns, not only they are provided little facilities, they have seen outcomes such as management failures in the countryside, low public participation in the settlement process, removal of vegetation, radial erosion of on rangeland around habitats, environmental impacts, reducing the number and amount of livestock and problems and disorders of social, cultural, and economic security. Hence, examining the consequences of nomads settlement and its outcomes are areas of interest in this study (Rezaie et.al, 2007).

Since livestock is the main source of livelihood of the tribes in the study area, thus in each program of nomads settlement, career planning is one of the major challenges for planners. Therefore, broader and more comprehensive understanding of the main sources of employment and understanding its links with the natural and social environment as well as study of the interaction between nomads and their animals with surrounding areas is necessary for each employment planning for habitation (Amirahmadian, 1999).

Some of the most important potentials for the development of animal husbandry activities in the tribal region can be expressed as follows:

- Adaptation of current nomadic husbandry with special ecological and natural features of the region in using the rangelands
- Despite the recent drought, the area has a desirable pasture which can be used in the development of semi-static animal husbandry development (Paply Yazdi, 1992);

- The main source of income for tribes are selling their fattening sheep, so this operational system can be developed by providing some facilities (Hayati, 2006);
- Existing desirable forage plants, especially young and fresh grass that is mainly improved by livestock manure that enhance vegetation which there is no need to protection and conservation of grassland in the case of rainfall (Darikvand, 2007);
- Due to consistency of breeds used to the natural conditions of the region, there is little need for investment costs for the construction of stations and related facilities, so that nomads merely use tents that have no longer the former durability to provide shelter for livestock and other investment costs.
- Production costs is much less than other methods, such as agricultural and industrial production due to the use of natural pasture and relatively inexpensive forage furnished by the tribal organization (ZyaieTavana, 2007);
- In comparison with other communities, they are less dependent to the government and are more producers so that nomads are self-sufficient in most areas in the region under study which their dependency to the government in some fields such as fodder and water and some food items is relatively high due to recent droughts (Rezaie et al., 2007);
- The existence and preservation of native breeds of livestock for the development of livestock activities (Irvani and Torkan, 2005).

Derikvand (2007) showed that organization and inhabitation plan of nomads cause improving the service and farming conditions and reducing the migration. In contrast, in the areas of job creation, increased income, access to health facilities and access to the mass media have had limited success.

Bardi (2011) showed that habitation of Turkmen nomads is led to urban social-economic development during its short life than its old adjacent cities, cultural development of society, especially Turkmen women and their harmony with contemporary developments of Iranian society in the field of education expansion and social contributions.

Raiszadeh (2009) showed that implementing the habitation plan in enhancing the level of social welfare of settled households has been successful; however, in the field of economy, it has had no much effect in tribal families income increase, creating productive employment, balance of livestock and pasture and replacing farming activities rather than livestock activities so that only settled nomads life are changed from the former nomadic life to semi-migratory and sheep handling.

## 2. Materials and Methods

The present study is a functional study in terms of objective and survey and a descriptive-correlation one in terms of data collection, degree of monitoring, degree of variables control and the capacity of

generalizing findings. In this study, accommodation association of ShahidGholipour, a subsidiary town of Shoushtar Pre-province, has been selected as a research area which is located in Dimcheh village, Ganound section of Shoushtar pre-province, Khuzestan province. This association is bordered with Ganound village from the north and northeast, the central sector and Mianab village from the east and southeast, to Sardarabad village from the south,

to shahvali village from the southwest and west and to Chaghamish village in Dezfoul pre-province from the northwest. The social and economic studies were fully conducted in 1998-1999 about this association and in the first phase, the settlement of 300 nomadic households from Bakhtiari tribe and from different Chahar Lang and Haft Lang families. 435 acres of farmland and 650 acres of pasture were assigned to the nomads settled in this association.

**Table 1:** Number of households and population of nomads separated by each province

Province	Summer nomads				Winter nomads			
	Household	Man and woman	Man	woman	Household	Man and woman	Man	Woman
Total country	212660	1186398	609124	577274	212660	1186398	609124	577274
Khuzestan	6513	38517	20182	18335	23274	140110	73416	66694

Reference: Detailed results of the Nomads economic-social census (2008)

To perform research and field work for the social and economic effects of sedentary of nomadic Bakhtiari tribe;tribal families residing in the ShahidGholipour township at Shoushtar pre-province with 350 households are considered as statistical community. To determine the sample size, 300 families residing in the city (300 = N) using Cochran formula, 168 subjects were selected as a sample. Also, among the 50 nomadic families lining in the vicinity of ShahidGholipour nomadic settlement, 50 households were considered. Therefore, 158 subjects were finally determined for the present study sample size. In this study, to explore the implications of accommodation and implications for livestock development activity, a questionnaire was used. A panel of experts is used to determine the validity of the research instrument. To determine research reliability, the Cronbach's alpha coefficient was used. Based on the results obtained, questionnaire reliability was in an acceptable range (above 0.7).

### 3. Findings

#### 3.1. Outcomes of nomads settlement:

In order to investigate the impact of nomads, the factor analysis with exploratory approach was used which in the first step, the suitability of data for factor analysis should be evaluated. Surveying the results obtained from calculating KMO coefficient and Bartlett test showed that the data are suitable for factor analysis.

(KMO = 0.734, Bartlett's test =345.12, df= 66, sig=0.00)

Due to the suitability of data, their classification order using principal component analysis approach was given which the results are summarized in Tables 2 and 3.

**Table 2:** extracted factors along with special values, variance percentage and cumulative variance percentage

Column	Factors	Special values	Variance percentage	Cumulative percentage
1	Cultural	1.45	12.13	12.13
2	Productive	1.31	10.99	23.12
3	Social problems	1.25	10.42	23.55
4	Leadership	1.20	10.07	43.62
5	Employment	1.14	9.51	53.13

**Table 3:** Variables associated with each factor, and the rate of coefficients obtained from the data matrix

Factor name	Item	Factor coefficients
Cultural	Sedentary leads to fading respects to tribes elders in society	0.709
	Sedentary leads to fading customs and beliefs of the local culture in the society.	0.645
Productive	Sedentary leads to reducing self-sufficiency and independency to rural and urban communities	0.776
	Sedentary leads to reducing livestock and agricultural activities in the community	0.539
Social problems	Sedentary causes increasing addiction in the society	0.749
	In nomadic tribes, issues like theft and insecurity is less than settled communities	0.516
Leadership	The role of local leaders among nomadic tribes is more than village and tribal councils	0.816
Employment	In nomadic tribes, rate of youth employment has been increased	0.640

The results show that five factors account for approximately 53.13% of the variance of the factors. The first factor with the special value of 1.45 accounts for approximately 12.13% of variance

related to the effects of accommodation and have been named as cultural influences. The most important effect of nomads settlement is in culture, traditions and customs of nomadic life. It is

emphasized that sedentary is led to fading the respects for tribe elders as well as caused fading the beliefs to traditions and local culture in society. The second factor explains almost 10.99% of variance related to factors and has been named as production effects. Nomads settlement is effective on animal products and byproducts and reduce production volumes. This factor emphasizes that settlement cause reducing self-sufficiency and dependency to rural and urban communities and also reducing livestock and agricultural activities in the community. The third named as social problems explains 10.42% of variance related to settlement effects and emphasizes that habitation exacerbate social problems such as addiction and sectarian strife and insecurity.

The fourth factor, which accounts for almost 10.07% of variance related to the effects, has been named as leadership factor and it emphasizes that in nomadic settled communities, local leaders lose their power and has no leadership power in new structures.

The fifth factors named as employment factor, accounts for almost 9.51% of variance related to these effects and it emphasizes that nomadic settlement is led to increasing unemployment and reducing youth employment.

### 3.2. Implications for livestock development in the study area

In order to identify the implications of the development of animal husbandry in the area, exploratory factor analysis with an approach to determining significant variables was used. Study of results obtained from factors analysis showed implications for livestock development activities in the region which the data were suitable for factor analysis.

(KMO=0.767, Bartlett's test=370.55, df=66, sig=0.00)

Given that the data are suitable, their categories order using principal component analysis approach was given which their results are given in Tables 4 and 5. The results show that four factors account for approximately 57.40% of the variance related to factors.

The first factor named as the access to production services accounts for about 22.22 percent of the implications of the development of animal husbandry in the area and it emphasizes that the most important factor in the provision of services such as veterinary services, credit, manufacturing credits, warehousing facilities and facilities for the purchase of production inputs. The second factor with the special value of 1.55 accounts for almost 12.98% of variance related to factors and is named as the factors of reduced production risk which emphasizes on livestock insurance (against disasters, theft, etc.), guaranteeing the purchasing price of livestock products by the state and development of processed animal products. High risk in agriculture and inefficiencies of support

systems increase the necessity to guarantee the purchase and processing of product produced. The third factors with special value of 1.34 accounts for almost 11.18% of variance related to factors and has been named as marketing factor. Inability to keep livestock in dry seasons and lack of proper market and improper transportation network is factors hampering the development of animal husbandry in the area. Finally, the fourth factors named as productive agencies accounts for almost 11.01% of variance related to implications for livestock development and it emphasizes on access to suitable pasture and production inputs such as forage and concentrate.

### 3. Results and Discussion

The aim of nomads settlement in issued programs was to improve access to services and development of the tribal communities in terms of economic and social indices and the aim of nomads settlement in settlement associations was to change their activities from traditional of agriculture to semi-industrial agriculture and animal husbandry. After 14 years of nomads in towns, the results show that significant agricultural land has been given to tribes settlement and ceded lands usually have little rain and power production. On the other hand, by the settlement of nomads and uncertainty of their pasture, animal activity is virtually gone and it should be said that the objective was settlement without considering ancillary activities. Hence, unemployment in these cities is quite high and people tend to work in unproductive jobs such as brokerage and intermediation. Hence, nomads settlement were associated with changes in production activities and unfortunately, they are not intended to be a substitute activity.

Basically, nomadic tribes have been a self-sufficient and independent society of urban and rural areas in the field of services they need from the past. Aspects of the required services was hired by the community from the outside; which due to technical or other aspects, such as social status, did not exist within the tribal community; there are many needs in its internal tissue and the scope of these needs was also different. Thus, a decision was made to meet the needs both from the tribal community and according to it. In fact, the impact of external factors was so slow that it did not feel. It is clear that these ways of understanding and responding to their needs does not require an unsolvable conflict and contradiction. Furthermore, the services taken at the time of non-tribal communities by tribes had no significant differences with tribal services not in terms of style, not of the nature and quality. Consequently, until the government imposed a policy of interference in tribal society in their program, no remarkable change and transformation was observed in this field. However, with residency programs, it requires that the government take the responsibility of offering a range of services outside of the nomadic building. Basically, it is necessary to

identify the real needs of tribes in providing different range of services by different organizations and an appropriate response is given to its growing needs. Services that need to be considered in the study area include access to manufacturing services, product risk mitigation, manufacturing and marketing of access to inputs.

In this part of the study, practical suggestions are given with respect to research findings:

- Development of local markets and transport networks in order to strengthen the marketing of products;
- Identifying appropriate accommodation centers with good agricultural land and pastures and

social studies before the nomads settlement to reduce the social problems arising from the settlement;

- Defining and identifying alternative activities and training settled nomads to reduce the vacuum caused by reduced livestock activities of nomads;
- Encouraging tribes to work together to develop cooperative manufacturing and services in accommodation centers;
- Holding festivals of training classes to make the youths familiar with tribal culture to reduce the impact of cultural accommodation.

**Table 4:** extracted factors along with special values, variance percentage and cumulative variance percentage

Column	Factors	Special value	Variance percentage of special values	Cumulative percentage
1	Access to productive services	2.66	22.22	22.22
2	Reducing production risk	1.55	12.98	25.20
3	Marketing	1.24	11.18	46.39
4	Access to production inputs	1.32	11.01	57.40

**Table 5:** variables for each factor and the coefficients obtained from the data matrix

Factors name	Item	Factors analysis
Access to productive services	Access to veterinary services (medical and veterinary) to public rates	0.766
	Access to funds	0.696
	Access to storage facilities for product	0.698
	Providing facilities for the cultivation of forage needed by livestock	0.800
Reducing production risk	Livestock insurance (against disasters, theft, etc.)	0.89
	Guaranteed discount purchase products cattle by State	0.696
	Development of processed animal products	0.698
Marketing	Existing product market in different times and to different buyers	0.800
	Strengthening transportation systems to provide inputs and selling products	0.717
Access to production inputs	Access to suitable rangeland	0.545
	providing forage and concentrate on affordable price	0.761
		0.656

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