

ANNEX H

RURAL SOCIETY/ SOCIAL EVALUATION

ANNEX - H

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H.1 General

H.1.1 General Conditions

The study area is located in the Zagros mountain range with average altitude of approx. 3,000 m. The area is about 26,800 km² and administratively is laid on the five provinces. The rural society in the area is characterized farmers who practice dry farming and distribution of nomads who founds on traditional animal husbandry by nomadic migration.

Topographically, the area extends over from the border of plains to places between mountains, and highlands. These geographical features limit the land and cultivated fields where agriculture can be practiced. Furthermore, the area has been degraded by decrease of the vegetation and the forest area due to overgrazing and cutting trees for fuels and reclamation for increase of the new cultivation area.

This annex includes the data and information on the present socio-economic conditions in the area, which aims to select the master plan study areas.

H.1.2 Data Collection

In the course of the field work (1), the following data and information relating the study area has been collected:

- (1) Population and Housing Census 1375 (1996), Statistical Center of Iran
Census reports of each rural district related to the study area, except for Kohgiluyeh Township, Kohgiluyeh va Boyerahmad Province, Shahreza Township, Esfahan Province, and Eghlid Township, Fars Province
- (2) Statistics of Population and Agriculture, Rural Research Center, Ministry of Construction Jihad
Statistics are based on the population census 1375 (1996) and the agricultural census 1372 (1993)
- (3) Socioeconomic Census of Tribal Nomads 1377 (1999), Statistical Center of Iran
Census reports of the provinces of Chaharmahal va Bakhtiyari, Kohgiluyeh va Boyerahmad, Esfahan, Fars and Khuzestan
- (4) Draft Reports of the Master Plan Study in the Karoon River Basin, Ministry of Agriculture
- (5) Social Study Report "Bakhtiyari Tribes", Plan and Budget Organization
- (6) Booklet of International Conference on Nomadism and Development, Ministry of Construction Jihad
- (7) Records of Inland Fishery, Silat Company, Provincial Jihad Organization
Data of Chaharmahal va Bakhtiyari Province, Kohgiluyeh va Boyerahmad Province and Semirum Township, Esfahan Province.

- (8) Provincial Statistics Book 1375 (1996), Plan and Budget Organization
Chaharmahal va Bakhtiyari Province, Kohgiluyeh va Boyerahmad Province and Khuzestan Province.
- (9) Rural Women in Iran, Rural Women Association of Iran
- (10) Political Administration Map, Statistical Center of Iran
Scale: 1:100,000

H.2 Socio-economic Conditions

H.2.1 Administrative Division

In the study area, the related provinces are Chaharmahal va Bakhtiyari, Kohgiluyeh va Boyerahmad, Esfahan, Fars and Khuzestan. Administration division within the area is as shown in the Table H-1-2.

Administrative division is in accordance with the Law of Administrative Division, promulgated in 1992. Province (Ostan) is divided into several townships (Sharestan), each township into several districts (Bakhesh), each district into several rural districts (Dehestan), and each rural district into several villages (Deh).

H.2.2 Population

The population and number of family of the related provinces in 1375 (1996) is totaled at about 12,790,000 persons and 2,530,000, respectively. Total population and number of family related to the study area is about 1,089,000 persons and 190,000, respectively. Rural population within the area is about 692,000 persons. (Refer to Table H-1-1-1 and Figure H-1-1)

Average family size in the whole basin is 6.3 and the highest sub-basin is K5. Annual growth rate of the population shows 2.5 percent in the Census 1375 (1996). Population density is 38.0 person per square kilometer. (Refer to Table H-1-1-2, H-1-3 and H-1-4)

Economically active population (age 10 and over) is about 746,000 persons and most the active age group between 15 years old and 64 years old accounts for 70 percent within EAP. Unemployment rate is 5.5 percent on average. (Refer to Table H-1-4)

H.2.3 Land Tenure and Land Holding

By the legislation of the Law of Land Reform in the 60's from the landlords connected to Shah rule, land ownership of farmer was realized. However its land reform was incomplete. After the Islamic Revolution, the land reform was settled at latter half of the 80's. Presently, all farmers in the area are own farmers.

Average land holding per farmer in the area, evaluated from the data of Rural Research Center, Ministry of Construction Jihad, is 3.3 hectares. (Refer to Table H-4-1-2)

H.2.4 Right of Common

The Forest and Rangeland Organization, Ministry of Construction Jihad manage rangeland, which is a place of grazing animals by rural and pastoral nomadic families. In the study area, the Office of Forest and Rangeland of the Provincial Jihad Organization is carried out as implementing agency of their services. The main role of the office is forest and rangeland management; establishment of reserve rangeland and its management and mini-scale rural development aiming to natural conservation. In addition, this office decides the rangeland use and migration route of the nomads after discussion with the Office of Nomad Affair of the Provincial Jihad Organization. Based on the decision, the office issues a permit of rangeland use for nomads.

On the other hand, the office is conducted renovation of rangeland, establishment of reserve rangeland and its management and opening of reserve rangeland. Reserve rangeland will open for pastoral nomads when occur grass shortage caused by drought. At the village level, within territory of village is permitted as common land for grazing. However, grazing in wide forest areas is prohibited due to the reservation of natural environment.

H.3 Rural Society

H.3.1 Rural Community

Rural community in the area is formed based on village. In many cases, the community organizes relatives. Marriage partner is within villager. At the village level, the Islamic committee is organized and manages community affair. The committee is organized four members elected by villagers. Generally, village elders are elected to a member. A head of the committee is represented the village. Traditionally, elders' intention dominates the overall situation of the community and family.

H.3.2 Nomadism

In the study area, there is large number of nomadic tribes. Major nomadic tribes are the Bakhtiyari (Haft Lang), the Boyerahmad-olia, the Kohgiluyeh and the Ghashghay. Each tribe is composed of several clans and families. (Refer to Table H-3-1-1 to 3-1-5)

The life-style of these nomads is traditionally nomadic migration with animal husbandry. Besides, they practice agriculture with small land without irrigation and low farming technology.

Pastoral nomadic community depends on seasonal migration such as in summer camp place and in the village of winter residence.

Nomadic social organization forms by "tribe -- tribal family -- clan -- olad -- daheyatesh -- mal". Presently, the tribal social structure has been destroyed and the mal only remains among nomadic tribes' communities. The community is strong by high identification with nomadic people and it has confederacy among them. Concerning the village Islamic committee and tribal organization, elders are generally elected as a member. Within the community and family, elders' intention dominates all-round mode of living, therefore, it maintains traditional patterns of behavior.

Pastoral nomadic migration system in the area is characterized by traditional method of animal husbandry; grazing animal at rangeland in summer, and raising animal at village in winter. Period of nomadic migration is six months including a distance from village to camping place. The camping place is established based on traditional custom. The camp organizes from some families as "mal" to ten families and more. Nomadic migration in the area is as follows: (Refer to Table H-3-2-1 to H-3-2-5)

Bakhtiyari tribes:

Tribal nomads, who settle in Khuzestan Province, migrate to the districts of Farsan, Ardal and Lordegan, Chaharmahal va Bakhtiyari Province.

Tribal nomads, who settle in Chaharmahal va Bakhtiyari Province, migrate to mountain areas within the Province.

Kohgiluyeh and Boyerahmad-olia tribes:

Almost these tribes migrate to mountain areas within Kohgiluyeh va Boyerahmad Province.

Ghashghay tribes:

This tribe mainly lives in Fars Province and they migrate to mountain areas in Semirom district, Esfahan Province.

Recently, it can be seen that pastoral nomadic migration system is being changed. They use a means of vehicle for moving of their family.

Traditionally, family member of nomads engages handicraft making such as carpet weaving, gilim (rug) weaving, jajim weaving, cap making, felt making and giveh (traditional shoes) making.

H.3.3 Education

In rural area of the area, there are established primary and secondary schools. Primary school is set up at the village level, on the basis of population. The schooling year is five years as

compulsory education. Secondary school (three years schooling) is established at the center of rural district and large village. High school is established at the center of district and town. School building is constructed permanently by concrete or bricks. According to the statistics 1377 (1999), average number of primary school pupil for one teacher is 20 in Chaharmahal va Bakhtiyari Province, 18 in Kohgiluyeh va Boyerahmad Province, 20.8 in Esfahan Province, 17.3 in Fars Province, and 27.5 in Khuzestan Province.

Higher education institutions such as university and college are in Shahre Kord, Borujen and Yasuj.

H.3.4 Health

The health service in rural area is carried out by health house and health center established under the national health care system. Establishment criteria of health house and health center is one health house for 500 to 1,500 inhabitants and one health center for 2,500 inhabitants and more. In the area, health house and health center is established about 3,300 and 640, respectively. (Refer to Table H-2-1)

In health house, two health technicians are stationed and service basic health consultation, vaccination and family planning for villagers. The health center has a doctor and nurses and services medical treatment. District hospital has an ambulance service. General hospitals in provincial capital treat for serious diseases and injuries. There are some pharmacies at the district level.

H.3.5 Living Conditions

H.3.5.1 Rural Community

Agriculture is economic foundation in rural community and animal husbandry follows. In addition, handicraft making (carpet weaving) is an important to rural family. Nevertheless, income of rural family is very low. They have not afforded to maintain their living. Domestic animals such as sheep and goats are a property of rural family.

After the Revolution, living conditions in rural community are being improved by provision of rural infrastructure such as road and bridge, electric supply, water-supply system, and public bath. Construction of the infrastructure is implemented by the Provincial Jihad Organization. Generally, rural family uses firewood for cooking and heating. They collect firewood from forest surrounding village. (Refer to Table H-2-1 and H-2-2)

At the village level, village cooperative is established and services daily necessities, farm input and marketing of farm products.

HL3.5.2 Nomadic Community

Income of nomads is derived from mainly animal husbandry and follows farm products and handicrafts. According to the Socioeconomic Census of Tribal Nomads 1377 (1999), home assets of nomads are radio/tape recorder, TV, oil lamp, gas/oil stove, heater, and sewing machine. Most of the houses in village are distributed electricity, except for scattered and remote area. (Refer to H-3-3-1 to H-3-3-5)

Generally, family of nomads uses firewood for cooking as fuel. But some families are converted from firewood to propane gas and/or kerosene oil which fuel materials are provided by low price through the Office of Nomad Affair. Provincial Jihad Organization promotes a conversion of cooking fuel in order to preservation of natural resources. Eating habit of nomads is similar to rural people. (Refer to Figure H-3-1 to H-3-5)

Regarding the education service for nomadic children, primary schools with dormitory are provided in the tribal residential areas and tribal teachers are also dispatched. Public health service is conducted by rural health centers under the national health care system.

In the village of winter residence, village cooperative is established and it provides daily necessities. Nomadic youth camp is also organized.

As official support to nomads, the Office of Nomad Affair provides wheat flour and basic necessities (by coupon). Mobil delivery system is adopted. On the other hand, the government promotes a construction of settlement (village), and provision of living infrastructure.

H.4 Agriculture and Other Rural Industry

H.4.1 General Conditions

The study area is composed of some part of provinces of Chaharmahal va Bakhtiari, Kohgiluyeh va Boyerahmad, Esfahan, Fars and Khuzestan in the hillside and mountain areas of the Zagros Mountains. Topographic features and climatic condition characterize the area. The principal economic activity is farming and animal husbandry in the provinces. The area produces mainly wheat, barley, forage crops, rice and bean and also fruits are grown. Most the productions of wheat and barley are dependent on dry farming. Forage crops, rice and bean are cultivated by irrigation. Regarding agricultural service by public institution, the Provincial Agricultural Organizations are carried out through Agricultural Service Center established at the district level.

On the other hand, pastoral nomads are distributed in the whole area and they raise animals such as sheep and goats for marketing. The farmers in rural area also raise domestic animals as well. The animal husbandry mostly plays important role as savings for their home economy. Livestock service is the responsibility of the Office of Livestock, the Provincial Jihad Organizations, and the office is conducted such service through Livestock Service Station at the district level.

The fisheries activities in the area are also plays important role to supply protein for the rural population and to improve regional economy. The Karoon River and its tributaries, fountains and lakes are the main source of the fishery.

H.4.2 Present Condition of Agriculture

The crops grown in the study area are largely varied dependent on the altitude and soil conditions of locations. The main crops found in the area are, wheat, barley, alfalfa, forage crops (clover and others), rice, bean and fruit trees. Other crops such as potatoes, lentils, green pea, sugar beet and nuts are also grown in limited area.

(Refer to Table H-4-1-1 to H-4-3-2 , H-4-4 and Figure H-4)

(1) Wheat

The staple food is wheat in the area. Farmers grow mainly wheat with dry farming. The production yield per hectare is 1,280 kg on average. Total production of wheat in the area is roughly estimated about 45,740 tons., calculated based on the cropping rate. In case of cultivation with irrigation, average yield is 3,180 kg.

Farming practices:

Wheat is cultivated on dry land in alternate years, under the cropping system "wheat – fallow – wheat".

- Plowing: by tractor before previous year of seeding.
- Seeding period: from the end of October to November (Iranian calendar).
- Fertilization: the stable manure mixed with chemical fertilizers applies at the time of plowing.
- Weeding: by manual
- Harvesting from July to August by manual or mechanization.

(2) Barley

Barley is also grown with dry farming. The production yield per hectare is 1,120 kg on average. Total production of barley is roughly estimated 14,550 tons., calculated based on the cropping rate. In case of cultivation with irrigation, average yield is 2,990 kg.

Farming practices:

Barley is also cultivated on dry land and planted in alternate years, under the cropping system "barley – fallow – wheat – barley".

Farming practices of barley are almost same as that of wheat.

- Seeding period: starts earlier than wheat by almost 15 days.
- Fertilization: mainly use stable manure, similar to wheat cultivation
- Weeding: by manual
- Harvesting period: June to July , by manual

(3) Alfalfa

Alfalfa, which is nutritious feed for livestock, is cultivated in irrigated area. The planted area is widely spread in the flatland and hillside. The production yield per hectare is 9,780 kg on average.

Farming practices:

Alfalfa is planted continuously or in alternate years.

- Plowing, fertilization and seeding are done after the last harvesting of the year.
- Harvesting is carried out three or four times a year.

(4) Pulses

Pulses, including kidney bean, lentils and green peas, are cultivated mainly in irrigated area. The cropped area of pulses in the area is estimated about 5,460 ha. Average production yield per hectare of kidney bean, lentils and green peas, are 2,470 kg, 1,350 kg and 1,200 kg, respectively.

Farming practices:

The cropping system is wheat or barley after pulses, and the period of cultivation is three months in summer.

- Fertilization: stable manure applies with plowing, and chemical fertilizer applies in the period of growth.
- Harvesting: July and November

(5) Rice

Paddy rice is cultivated in places of 1,500 m or lower altitude where water sources are abundant. The planted area for rice occupies about 5,100 ha of the irrigated area. The production yield per hectare is 4,710 kg on average.

Farming practices:

The period of cultivation is from mid-May to October.

- Preparation of paddy: mid-May, by buffalo or tractor.
- Transplanting: from mid-June to early July, by manual
- Harvesting: October, by manual

(6) Grapes

Grapes are widely cultivated in semi-dry land on the slope of mountains and hillsides in the area.

The planted area for grapes is about 1,720 ha. The production yield per hectare is 9,520 kg on average.

Farming practices:

In the case of new planting or renewal,

- Planting pits making: in late October and early November before snowfall, or in March.
- Seedlings: planted in November or in March and April.
- Plowing: from late March to early May.
- Fertilization: chemical fertilizer applies at the planting time and several times a year.
- Pruning: in late March and April, in August, and in November.
- Irrigation: from July to early October.
- Prevention and extermination of plant pests: pesticides apply from late May to mid-August.
- Harvesting: late September to early November.

(7) Apples

Apples are widely cultivated in Semirom District, Esfahan Province (the sub-basin K4 and K7). The production yield per hectare is 18,245 kg on average. This yield shows considerably higher than that of the country (13,674 kg).

Farming practices:

In the case of new planting or renewal,

- Planting pits making: in early November before snowfall, or in March and April.
- Seedling: in early December or from late March to middle April.
- Plowing: in late March.
- Fertilization: chemical fertilizers apply at the time of planting and several times a year.
- Pruning: in late March.
- Irrigation: between middle June and early October.
- Prevention and extermination of plant pests: pesticides apply four times, in late March, in late May, in late June and early August.
- Harvesting: from mid-September to mid-October.

H.4.3 Livestock

Traditionally, the rural families in the study area raise domestic animals. The kinds of animals raised in the village include sheep, goats, cows, horses, donkeys, mules, domestic fowls, turkeys, ducks and geese as well as bees. Among these, sheep and goats are major animal husbandry, which have been traditionally raised. Also, animal husbandry is economic foundation of the families of nomads. The animal husbandry among nomads is based on pastoral migration. (Refer to Table H-5-1, and Figure H-5)

(1) Sheep

1) Lori Bakhtiyari Breed

Sheep of Lori Bakhtiyari breed accounts for 50 percent of the existing sheep in the area. This breed is for meat and milk production, and have two lambing a year. It has robust and muscular body and a quite sheep after weaning produces 10 – 15 liters of milk. Average weight of a quite sheep, as adult for female is 60 kg and 10 to 15 kg for male. Color of this breed is white and the

production of sugar white fleece is 1 to 1.5 kg per year.

2) Turki (Gashghay) Breed

This breed has proper milking, and fattening. Milk production is 15 liters a year. Fleece production is 1 – 1.5 kg with light brown color and long wool. Average weight of adult sheep of female is 45 kg and 10 kg for male. The body is robust and sits right behind Lori Bakhtiyari breed. This breed shows the best resistance against the diseases.

(2) Cows

In the area, milk cows are dominated among cattle breeding and the ratio of true breeds to breeds mated with native ones is 1 to 2 owing to the recent import of pure milk cows. The most important pure milk cows in the area are Holstein, Brown Swiss and Danish Jersey. Among them, Holstein is less proportion and Brown Swiss is on the increase rapidly. Holstein is kept in both industrial farms (small and or big) and raises traditional forms in rural and suburban areas. Average milk production in the area reaches up to three tons a year. Holstein is spreading mostly in the sub-basin K1. Brown Swiss has a resistance to coldness so that it distributes in the sub-basin K4. Danish Jersey has not a resistance to coldness and is not popular breed and it only shares 1.5 percent of pure breeds in the area.

Native breeds are also distributed mostly in the sub-basin K6. Milk with medium fat produces 4 – 6 liters per day.

H.4.3.1 Animal Husbandry of Nomads

As mentioned in 2. 1. Nomadism, large number of nomads lives in the area. They perform animal husbandry with pastoral migration. The period of pastoral nomadic migration varies in the region. Generally, pastoral feedings in summer pastures are five to six months, from late April to mid-October. They settle camp places as a base of grazing animals in rangeland. Moving and migration with economic goals or using free forage is the most striking specialty of nomadic animal husbandry production and nomadic life-style. This mode of life that is based on movement is quite different with rural (fixed) animal husbandry. The main purpose of nomadic animal husbandry production is fattening for marketing. Nomads do not slaughter their livestock even for their own use because they keep their livestock as their capital. (Refer to Table H-5-2)

In recent years, some nomadic families are planted grains with dry farming in their pastureland (either dry or irrigated land) or leased lands. The forage crops produced in such lands are the main source of feeding for moving animal husbandry. Afterwards, such nomadic families became settled as farmers with livestock production. They are also farmers with dry farming around summer pastures and villages. Livestock is main capital of nomads, however, most of them have no intention to try to improve and optimize the utilization of their livestock.

H.4.3.2 Rural Livestock Production

The rural livestock production practices by traditional method. The economy of livestock production in rural community has a secondary importance and plays a complementary role for farming in the production. On the other hand, farming as the main base of production is supplying necessities of families.

Method of livestock production in the area is generalized throughout the country. The method of production is influenced by nomadic culture of their neighbor. In this method, proportion of sheep to goats is 2 to 1 (60% and 33%), and rural cattle (cows) are about 5.83 times than nomadic cattle. Forage crops supply from farmland. It means that for sheep meat is good demand in near consumption markets. Rural herds are grazing free forage of the pastures (common land) and also remained forages as straws and stalks after harvesting are used. In winter, it is fed by handy forage.

Milk production of cows is growing annually in rural areas. Using milk of cows was abolished before, but now is consumed by rural family produced to yogurt and shipped to near markets. In the remote villages, it processed to butter, oil and whey is sold.

Rural livestock production access to better animal health services and are influenced more by civil culture and obtain higher training and technology in comparison with nomadic livestock production.

Honeybee keeping is the other characteristic of rural livestock production. Rural hives are in tow forms: native (clay) and new (boa). Average of honey production is 5 – 7 kg. Recently, some villagers try to move the new.

Sheep shearing is done once in a year (July) but goat hair cutting is not economical. Animal dung is used as fuel for bakery and also as stable manure.

Base of rural livestock production is mainly the family.

H.4.4 Inland Fishery

In the northern sub-basin of the Karoon River, there is precious water source for freshwater fish culture. Inland fishery is prosperous in the study area using river, fountains, ghanats, lakes, mashes, swamps and so on under condition of cold and moderate climatology of the area.

The areas are suitable for cold water fish culture as well as warm fish culture. The specie of cold water fish culture in the area is dominated Red speckle trout and Rainbow trout, while the

specie of warm water fish is Carps, Phytophac, Amour and so on.

Fish farms are scattered around places of fountains and rivers in the area, except for the sub-basin K1 and K8. All good fountains are registered and authorized by wealthy and influenced persons of the towns. However, there are two management types of fish farms; enterprise type (ownership) and village cooperative type. According to the Office of Fishery (Silat Company), number of fish farm in the area is 60, which produces 1,465 tons annually. In Chaharmahal va Bakhtiyari Province, six village cooperatives have registered fish farms. Besides, two fisherman's unions are organized for two lakes in the sub-basin K4. Annual production in two lakes is 350 tons.

The cold fish fry production is carried out at the Freshwater fish multiplication center of Ministry of Construction Jihad, near Yasuj, capital of Kohgiluyeh va Boyerahmad Province. The fry produced in the center is distributed to the fish farms in the area.

Freshwater fish production is a responsibility of the Office of Fishery (Silat Company) of the Provincial Jihad Organizations.

H.4.5 Domestic Industry

Traditionally, domestic industry in Iran is handicraft making. Within the handicraft making, carpets are represented. Besides carpet weaving, there are gilim (rug) weave as well as traditional hat, shoes and daily necessities among nomads. Most of the handicraft materials are of woolen pieces, which are closely related to rural and nomadic animal husbandry.

Domestic industry is founded on rural home industry, which depends on the labor of mainly women and family members. Cash income obtained from these product accounts for a large proportion of household income next to farm products.

According to the officials of the Office of Handicraft, the Provincial Jihad Organization, one person weaves about 1 m² of carpet one month and the profit including labor is 400,000 Rials.

In Chaharmahal va Bakhtiyari Province, the quantities of production of carpets and gelim are 250,000 m² and 100,000 m², respectively.

The Office of Handicraft in each province supports handicraft making as rural industry for nomads and villagers. The office promotes establishment of rural industry cooperative at the village level. Through the cooperatives, they are carried out guidance for quality control and design, processing and sale of raw materials, and marketing of the products.

H.4.6 Marketing Systems

(1) Agricultural products

Among agricultural products, wheat and barley as basic foodstuff are set up a maintenance price by the government. In this year, prices per kg of wheat and barley are 800 Rials and 850 Rials, respectively. Excepting for home consumption, wheat and barley are shipped through village cooperatives. Farmers are sold other farm products directly to local market near village or ship to markets through middlemen. Marketing system of these product are not fixed. According to the interview with farmer, farmer sometimes sells alfalfa (forage) to villagers and nomads. The price of alfalfa is 800 Rials/kg.

(2) Livestock

Marketing channel of livestock (sheep, goats and cows) in the area is simple, and villagers and nomads are sold directly to middlemen or peddlers. Domestic fowls and eggs are sold directly by farmer in local markets. In case of nomads, they sell their animals in summer camp or during nomadic migration.

According to the interview with farmer, the prices per head of sheep and goats are 300,000 Rials and 150,000 Rials, respectively.

(3) Handicrafts

Carpets and rugs made by tribal nomads in the area are very famous in the world and those are export to foreign markets. There are two marketing systems in the area: one is the Handicraft Organization of Ministry of Construction Jihad and the other is carpet merchants and peddlers. The quality, standards and design of carpets are the important factors to determine the prices. According to the Office of Handicraft in Chaharmahal va Bakhtiyari Province, average price of carpet is about 600,000 Rials per one square meter.

H.5 Human Development Index

According to the Human Development Report of the Islamic Republic of Iran, 1999, from 1960 to 1995, Iran's human development index values increased 0.452. It shows the upward trend in Iran's human development index in the past decade (from 0.642 to 0.758), but it has not been constant, actually showing a slight decline in 1995 and 1997.

While it took the past decade (1988 – 1997) for life expectancy to rise from 61.6 to 69.5 years. By raising public health awareness and giving priority of health care, the government has created the conditions necessary for increasing people's life expectancy.

Adult literacy rose from 41.8 percent on the eve of revolution (1979) to 74.5 percent in 1997. Similarly, the combined enrolment ratio shot up from 46 percent in 1980 to 75 percent in 1997. Regarding real GDP per capita, after the revolution, but in the second decade it rose from

\$3,715 to \$5,222.

There are wide disparities in human development at the provincial level. Among provinces in the country, in 1996, the provinces of Esfahan (third place) and Fars (fourth place) enjoyed higher levels of human development than the other related provinces. The provinces of Chaharmahal va Bakhtiyari (eighteenth place) and Khuzestan (tenth place) are situated at medium level in the country. Kohgiluyeh va Boyerahmad Province is ranked of low level (twenty-fourth place). (Refer to Figure H-6)

In the course of the first phase of the study, it was impossible to obtain any data on the human development in the area. Therefore, human development in the study area could not be analyzed.

H.6 Gender Issue

In the study area, more than half the labor force engaged in farming and livestock raising is female, i.e., rural women. The activities of rural and nomadic women play an effective role in the reduction of production costs and improvement of family income. The domestic activities, i.e., housekeeping and childcare, are essential part of women's work.

Generally, the cultural manner of thought and social circumstances in rural society is deprived of access to education and training from rural women and girls. After the revolution, however, by promoting eradication of illiteracy and improving school attendance for them, the circumstances have been gradually improved. (Refer to Figure H-7)

Although rural women's participation to the community work is existed, they have not set an opportunity for decision-making in the community. Informal employment of women in rural areas provides an opportunity for initiatives aimed at expanding organized economic participation of women. The Ministries of Construction Jihad and Agriculture have already taken some steps in this direction, including organizing rural training and extension activities; organizing carpet weavers; setting up rural women's production network; launching women's self-employment programs; and expanding women's cooperatives and non-governmental organizations. In the area, some rural industry (carpet weavers) cooperatives are already organized.

Concerning gender-based division of labor of rural family, men perform in all stages of farming and boys are helping his father's work and animal raising. The women's work include milking and making of dairies, small animal raising, collection of firewood and help to farm work, in addition to domestic home work. Furthermore, rural women and girls are engaged in handicraft work.

Most activities related to capital acquisition and maintenance is the responsibility of men. The source of wealth controlled by women is few.

Public institutions supporting to rural women are composed of the Ministry of Health and Medical Education, the Imam Homeini Relief Commission, the Iranian Handicraft Organization and aforementioned ministries. As the activities of NGO, the Women and Sustainable Development Association endeavor for improve social status and enhance the empowerment of rural women at the national level.

HL7 Methodology of Inventory on Socio-economic Conditions

In order to prepare the inventory on socioeconomic conditions, collection of data and information has been done during the first phase in the field study in Iran. However, some essential data were impossible to collect in the course of the field study. Consequently, the data for inventory have been evaluated based on the obtained data.

Besides, each item on socioeconomic conditions by the sub-basin, which divided into small sub-basin, was evaluated based on the rural districts related to the study area. However, due to difficult to the demarcation of village related to the said sub-basin, the value of small sub-basins has been computed by the ratio of an area estimated. Most of the area is situated at mountain areas and the locations of villages related to the area are unknown so that the accuracy of calculated value is questionable. Nevertheless it is conceivable to adopt this method because of the difficulty to select the villages.

- Population: based on the Population and Housing Census 1375 (1996)
- Rural infrastructure: based on the Population and Housing Census 1375 (1996)
- Agriculture: based on the data of Rural Research Center, Ministry of Construction Jihad and the master plan study reports related to the area of Ministry of Agriculture
- Livestock: based on the data obtained from the offices of livestock, the provincial Jihad organizations related to the area, and the master plan study reports related to the area of Ministry of Agriculture
- Income level: estimated income on the basis of agricultural and livestock net incomes calculated in the master plan study report of Ministry of Agriculture.

On the assumption that the net income value of represented crops is adopted, this estimation is computed roughly.

- (1) Cultivated area with irrigation: Alfalfa
- (2) Cultivated area with dry farming: Wheat
- (3) Orchard with irrigation: Grapes

TABLES

Table H-1-1-1 Population by Sub-basin

S-basin	Rural Area		Urban Area		Whole Area	
	Population	Family (nos)	Population	Family (nos)	Population	Family (nos)
K1	151,920	25,342	268,600	52,899	420,520	78,241
K2	21,823	3,062	7,177	1,234	29,000	4,296
K3	49,091	7,235	5,144	943	54,235	8,178
K4	39,425	6,293	15,878	3,023	55,303	9,316
K5	19,154	2,914	0	0	19,154	2,914
K6	60,538	8,406	18,565	3,083	79,103	11,489
K7	281,338	50,394	81,928	14,282	363,266	64,676
K8	68,732	10,969	0	0	68,732	10,969
Total	692,021	114,615	397,292	75,464	1,089,313	190,079

Data source: Census 1375 (1996), converted into sub-basin.

Table H-1-1-2 Population by Sub-basin

S-basin	Area (km2)	Total Population	Male	Female	Population density (p/km2)	Family size
K1	3,920	420,520	212,462	208,058	103.3	5.4
K2	1,224	29,000	14,715	14,285	26.1	6.8
K3	2,509	54,235	27,297	26,938	21.3	6.6
K4	3,215	55,303	27,133	28,236	17.8	5.9
K5	2,175	19,154	9,687	9,536	8.9	6.6
K6	1,474	79,103	40,518	38,595	47.8	6.9
K7	9,021	363,266	190,674	183,687	40.7	5.6
K8	3,274	68,732	37,040	36,676	20.5	6.3
Total	26,812	1,089,313	559,527	546,010	38.0	6.3

Data source: Census 1375 (1996), converted into sub-basin.

Table H-1-1-3 Population by Sub-basin

S-basin	EAP age 10 over	15 years old to 64 years old	More than 65 years old	Unemployment population	Unemployment rate (%)	Literacy rate (%)
K1	297,308	205,214	18,923	3,086	1.0%	79.0%
K2	21,995	15,182	1,400	541	2.5%	66.8%
K3	36,852	25,437	2,346	1,295	3.5%	62.5%
K4	39,099	26,988	2,489	1,371	3.5%	71.4%
K5	13,542	9,347	862	808	6.0%	54.9%
K6	55,926	38,602	3,560	1,200	2.1%	63.8%
K7	235,033	168,919	15,984	15,616	6.6%	67.7%
K8	46,050	35,534	3,093	8,509	18.5%	52.5%
Total	745,805	525,223	48,657	32,426	5.5%	64.8%

Data source: Census 1375 (1996), converted into sub-basin.

Table H-1-2 (1) Administrative Division related to the Study Area

Province	Township	District	Rural district	No. of village	No. of city/town
Chaharmahal va Bakhtiyari	Shahre Kord	Markazi	Humeh	11	3
		Ben	Vardenjan	13	0
		Markazi	Lar	16	1
		Ben	Saman	0	0
		Markazi	Taghanak	8	1
		Kiar	Kiar Sharghi	15	0
		Kiar	Kiar Gharbi	15	1
	Borujen	Markazi	Humeh	13	4
		Gandoman	Gandoman	25	2
		Gandoman	Choghkhur	14	0
	Farsan	Farsan	Misuj Sofla	9	2
		Farsan	Misuj Olia	21	1
		Shurab	Shurab Tangzi	53	0
		Bazoft	Doab	52	0
		Shurab	Dasht Zarrin	47	0
		Shurab	Miankuh Moguei	0	0
		Bazoft	Bazoft	51	0
	Ardal	Markazi	Poshtkuh	26	1
		Markazi	Dinaran	31	0
		Naghan	Naghan	13	1
		Naghan	Mashayekh	23	0
		Naghan	Miankuh	27	0
		Naghan	Shalil	36	0
	Lordegan	Khan Mirza	Khan Mirza	33	1
		Khan Mirza	Armand	21	0
		Markazi	Menj	25	0
		Markazi	Barez	40	0
		Markazi	Milas	51	1
		Markazi	Sardasht	66	0
		Markazi	Rig	22	0
		Felard	Poshtkuh	31	0
		Felard	Felard	35	0
Kohgiluyeh va Boyerahmad	Boyerahmad	Daruhan	Zilayi	82	0
		Margun	Margun	215	0
		Daruhan	Sadat Mahmudi	68	0
		Daruhan	Pataveh	97	1
		Daruhan	Dena	44	0
		Daruhan	Kabkiyan	113	0
		Ludab	Chin	0	0
		Ludab	Ludab	0	0
		Markazi	Sarude Shomali	45	1
		Markazi	Kakan	33	0
		Markazi	Sasude Jomubi	119	0
		Markazi	Dashterum	70	0
		Markazi	Sepidar	124	0

Table H-1-2 (2) Administrative Division related to the Study Area

Province	Township	District	Rural district	No. of village	No. of town/city
Kohgiluyeh va Boyerahmad	Kohgiluyeh	Dishmuk	Ajam	43	0
		Charusa	E. Tgayebi Sharghi	0	0
		Charusa	W. Tayebi Sharghi	0	0
		Charam	Charam	0	0
Esfahan	Semirom	Semirom	Vardasht	56	0
		Semirom	Vanak	4	0
		Semirom	Hana	7	1
		Semirom	Padna Sofla	14	0
		Semirom	Padna Vasati	13	0
		Semirom	Padna Olia	29	0
	Lanjan	Bagh Bahadoran	Chamkuh	0	0
		Bagh Bahadoran	Zirkuh	0	0
		Bagh Bahadoran	Chamrud	0	0
	Mobarakeh	Markazi	Gharkau Jonubi	0	0
		Markazi	Takhunche	0	0
	Shahreza	Semirom Sofla	Hamgin	0	0
		Semirom Sofla	Muza Abad	0	0
		Semirom Sofla	Kahrueh	0	0
		Markazi	Esfarjan	4	0
		Markazi	Izad Khast	0	0
Fars	Eghlid	Markazi	Kosro va Shirin	3	0
		Sedeh	Desh Kord	16	0
	Sepidan	Markazi	Kamhar	11	0
		Markazi	Khafri	70	0
	Mamasani	Markazi	Jozar	0	0
		Markazi	Poshtkuk Rostam	0	0
Khuzestan	Izeh	Markazi	Susan Sharghi	31	0
		Markazi	Susan Gharbi	75	0
		Markazi	Pian	63	0
		Dehdez	Donbaleh rud Shomali	55	0
		Dehdez	Dehdez	43	0
		Dehdez	Donbaleh rud Janubi	36	0
		Markazi	Humei Sharghi	60	0
		Andica	Chelo	66	0
	Masjed Soleyman	Andica	Delrou Kotak	47	0
		Andica	Shelal deshtgole	57	0
		Andica	Kusuk	68	0
		Andica	Agzhadan	29	0
		Andica	Ghalea Khajeh	37	0
	Dezful	Dezful	Dezful	0	0
Total				3,297	22

Data source: Census 1375 (1996)

Note: Number of city and town is within the study area.

Table H-1-3 (1) Population by Administrative Division related to the Study Area

Province	Township	Rural district	No. of village	Number of family	Total population	Male	Female
Chaharmahal va Bakhtiari	Shahre Kord	Humeih	11	32,570	160,703	81,142	79,561
		Vardenjan	13	5,276	26,490	13,002	13,488
		Lar	16	6,298	34,479	17,221	17,258
		Saman	0	0	0	0	0
		Taghanak	8	5,665	29,543	14,974	14,569
		Kiar Sharghi	15	3,550	18,229	9,033	9,196
		Kiar Gharbi	15	5,979	30,097	15,222	14,875
	Borujen	Humeih	13	11,514	55,469	28,113	27,356
		Gandoman	25	5,441	28,317	14,019	14,298
		Choghkhur	14	1,401	7,955	3,855	4,100
	Farsan	Misuj Sofla	9	6,727	36,918	18,813	18,105
		Misuj Olia	21	7,621	45,253	23,031	22,222
		Shurab Tangzi	53	1,166	7,274	3,781	3,493
		Doab	52	891	5,341	2,657	2,684
		Dasht Zarrin	47	938	5,397	2,615	2,782
		Miankuh Moguei	0	0	0	0	0
		Bazoft	51	846	5,289	2,693	2,596
	Ardal	Poshtkuh	26	4,793	27,548	13,889	13,659
		Dinarian	31	1,085	5,834	2,940	2,894
		Naghan	13	1,658	9,009	4,593	4,416
		Mashayekh	23	1,075	6,460	3,213	3,247
		Miankuh	27	1,293	7,728	3,884	3,844
		Shalil	36	864	5,295	2,663	2,632
	Lordegan	Khan Mirza	33	4,439	26,149	13,371	12,778
		Armand	21	1,190	11,179	5,647	5,532
		Menj	25	1,345	7,769	3,964	3,805
		Barez	40	1,187	6,858	3,460	3,398
		Milas	51	6,969	41,223	21,098	20,125
		Sardasht	66	1,417	8,419	4,286	4,133
		Rig	22	1,863	11,006	5,674	5,332
		Poshtkuh	31	1,399	7,614	3,808	3,806
		Felard	35	7,584	23,611	12,042	11,569
Kohgiluyeh va Boyerahmad	Boyerahmad	Zilayi	82	1,314	7,428	3,751	3,677
		Margun	215	1,877	10,433	5,206	5,227
		Sadat Mahmudi	68	1,930	11,029	5,480	5,549
		Pataveh	97	2,842	16,476	8,307	8,169
		Dena	44	2,504	13,346	6,716	6,630
		Kabkiyan	113	2,019	11,769	5,813	5,956
		Chin	0	0	0	0	0
		Ludab	0	0	0	0	0
		Sarude Shomali	45	4,219	83,106	43,394	39,712
		Kakan	33	425	2,372	1,114	1,258
		Sasude Jonubi	119	5,671	21,138	10,957	10,181
		Dashterum	70	1,175	6,903	3,379	3,524
		Sepidar	124	1,298	7,945	3,951	3,994

Table H-1-3 (2) Population by Administrative Division related to the Study Area

Province	Township	Rural district	No. of village	Number of family	Total population	Male	Female
Kohgiluyeh va Boyer-Ahmad	Kohgiluyeh	Ajam	43	668	3,289	1,636	1,653
		E. Tgayebi Sharghi	0	0	0	0	0
		W. Tayebi Sharghi	0	0	0	0	0
		Charam	0	0	0	0	0
Esfahan	Semirom	Vardasht	56	1,290	7,039	3,279	3,760
		Vanak	4	833	4,070	2,001	2,069
		Hana	7	1,384	7,021	3,435	3,586
		Padna Sofla	14	1,139	6,031	2,975	3,056
		Padna Vasati	13	1,464	7,801	3,944	3,857
		Padna Olia	29	1,497	8,199	3,919	4,280
	Lanjan	Chamkuh	0	0	0	0	0
		Zirkuh	0	0	0	0	0
		Chamrud	0	0	0	0	0
	Mobarakeh	Gharkau Jonubi	0	0	0	0	0
		Takhunche	0	0	0	0	0
	Shahreza	Hamgin	0	0	0	0	0
		Muza Abad	0	0	0	0	0
		Kahrueh	0	0	0	0	0
		Esfarjan	4	1,756	7,374	3,650	3,724
		Izad Khast	0	0	0	0	0
Fars	Eghlid	Kosro va Shirin	3	707	2,977	1,490	1,487
		Desh Kord	16	1,553	8,231	4,030	4,201
	Sepidan	Kamhar	11	679	3,903	1,948	1,955
		Khafri	70	2,478	13,414	6,391	7,023
	Mamasani	Jozar	0	0	0	0	0
		Poshtkuk Rostam	0	0	0	0	0
Khuzestan	Izeh	Susan Sharghi	31	985	5,769	2,970	2,799
		Susan Gharbi	75	1,843	11,829	5,993	5,836
		Pian	63	1,884	11,954	5,984	5,970
		Donbaleh rud Shomali	55	1,209	7,713	3,803	3,910
		Dehdez	43	1,608	10,629	5,320	5,309
		Donbaleh rud Janubi	36	1,248	7,867	3,878	3,989
		Humeh Sharghi	60	2,131	14,028	7,170	6,858
	Andica	Chelo	66	5,775	10,618	5,350	5,268
		Delrou Kotak	47	691	4,365	2,185	2,180
		Shelal deshtgole	57	733	4,377	2,205	2,172
		Kusuk	68	9,309	16,510	8,224	8,286
		Agzhadan	29	1,805	11,744	5,970	5,774
		Ghalea Khajeh	37	2,173	13,419	6,780	6,639
	Dezful	Dezful	0	0	0	0	0
Total			2,761	206,160	1,104,572	557,301	547,271

Source: Census 1375 (1996)

Note: "0" is no exist village within the study area.

Table H-1-4 (1) Economically Active Population and Literate Population in Rural District

Province	Rural district	No. of village	6 years old and more	Age 10 and more *	Less than age 10	Between 15 and 64	More than age 65	Unemploy. pop.	Literate pop.
Chaharmahal va Bakhtiari	Humeh	11	20,793	18,117	9,360	13,337	1,200	701	17,110
	Vardenjan	13	13,510	11,640	6,460	8,169	846	204	10,539
	Lar	16	20,623	17,365	11,026	12,006	1,107	365	15,326
	Saman	0	0	0	0	0	0	0	0
	Taghanak	8	9,449	8,140	4,458	5,726	558	195	7,640
	Kiar Sharghi	15	16,025	13,921	7,382	9,816	1,031	171	13,049
	Kiar Gharbi	15	20,210	17,257	10,096	11,944	1,153	540	16,170
	Humeh	13	10,882	9,240	5,471	6,559	577	215	8,461
	Gandoman	25	10,706	9,062	5,410	6,371	658	168	8,021
	Choghkhur	14	6,784	5,685	3,660	3,811	484	98	4,770
	Misuj Sofla	9	19,399	16,095	10,884	10,971	966	760	15,675
	Misuj Olia	21	12,198	10,142	6,904	6,988	588	103	9,486
	Shurab Tangzi	53	5,993	4,953	3,625	3,288	361	89	4,166
	Doab	52	4,262	3,477	2,672	2,424	245	97	2,523
	Dasht Zarrin	47	4,379	3,581	2,692	2,472	233	25	2,900
	Miankuh Moguei	0	0	0	0	0	0	0	0
	Bazoft	51	4,210	3,502	2,699	2,403	187	56	2,341
	Poshtkuh	26	16,710	13,796	9,870	9,670	831	581	11,813
	Dinara	31	4,680	3,802	2,918	2,708	208	227	2,496
	Naghan	13	3,266	2,757	1,698	1,869	298	20	2,181
	Mashayekh	23	5,327	4,412	3,058	3,085	317	55	3,520
	Miankuh	27	6,211	5,054	3,904	3,486	338	180	3,909
	Shalil	36	4,233	3,499	2,638	2,434	223	336	2,397
	Khan Mirza	33	21,385	17,666	12,858	12,389	901	794	15,330
	Armand	21	8,748	7,131	5,766	5,040	373	23	5,189
	Menj	25	6,140	5,043	3,962	3,567	240	587	3,289
	Barez	40	5,315	4,349	3,476	3,192	189	198	2,516
	Milas	51	19,427	15,919	12,195	11,301	785	322	12,414
	Sardasht	66	6,479	5,354	4,294	3,841	284	12	3,290
	Rig	22	8,930	7,391	5,342	5,209	448	45	6,100
	Poshtkuh	31	6,045	5,027	3,825	3,562	225	14	3,040
	Felard	35	20,491	17,760	13,540	13,693	4,907	4,312	15,573
Kohgiluyeh va Boyerahmad	Zilayi	82	5,791	4,740	3,712	3,556	160	67	2,490
	Margun	215	8,060	6,503	5,482	4,653	298	236	5,124
	Sadat Mahmudi	68	9,018	7,457	5,232	5,456	341	98	5,646
	Pataveh	97	13,336	10,862	8,332	7,656	448	488	9,609
	Dena	44	6,040	5,047	3,165	3,594	331	128	4,454
	Kabkiyan	113	9,903	8,165	5,655	5,711	403	238	7,365
	Chin	0	0	0	0	0	0	0	0
	Ludab	0	0	0	0	0	0	0	0
	Sarude Shomali	45	11,837	9,790	6,584	6,934	455	307	9,534
	Kakan	33	2,065	1,784	942	1,262	168	64	1,472
	Sasude Jonubi	119	18,580	16,070	10,643	12,443	3,392	2,907	15,293
	Dashterum	70	5,727	4,687	3,404	3,276	223	67	4,093
	Sepidar	124	6,716	5,464	3,873	3,823	249	20	4,897

Table H-1-4 (2) Economically Active Population and Literate Population in Rural District

Province	Rural district	No. of village	6 years old and more	Age 10 and more *	Less than age 10	Between 15 and 64	More than age 65	Unemploy. pop.	Literate pop.
Kohgiluyeh va Boyer-Ahmad	Ajam	43	2,520	2,012	1,722	1,470	97	13	1,012
	E. Tgayebi Sharghi	0	0	0	0	0	0	0	0
	W. Tayebi Sharghi	0	0	0	0	0	0	0	0
	Charam	0	0	0	0	0	0	0	0
Esfahan	Vardasht	56	6,024	5,134	2,915	3,725	399	392	4,171
	Vanak	4	3,577	3,061	1,703	2,141	226	299	2,604
	Hana	7	6,021	5,148	2,963	3,776	282	285	4,097
	Padna Sofla	14	5,015	4,096	2,871	2,920	240	110	3,526
	Padna Vasati	13	6,690	5,656	3,413	4,043	345	289	4,913
	Padna Olia	29	6,979	5,797	3,744	4,126	329	471	5,327
	Chamkuh	0	0	0	0	0	0	0	0
	Zirkuh	0	0	0	0	0	0	0	0
	Chamrud	0	0	0	0	0	0	0	0
	Gharkau Jonubi	0	0	0	0	0	0	0	0
	Takhumche	0	0	0	0	0	0	0	0
	Hangin	0	0	0	0	0	0	0	0
	Muza Abad	0	0	0	0	0	0	0	0
	Kahruiyeh	0	0	0	0	0	0	0	0
	Esfarjan	4	6,723	5,995	2,421	4,207	746	261	4,685
	Izad Khast	0	0	0	0	0	0	0	0
Fars	Kosro va Shirin	3	2,629	2,316	1,200	1,797	248	331	2,110
	Desh Kord	16	7,184	6,091	3,418	4,380	433	283	5,218
	Kamhar	11	3,273	2,720	1,777	1,920	206	61	2,215
	Khafri	70	11,208	9,387	5,968	6,732	569	179	7,460
	Jozar	0	0	0	0	0	0	0	0
	Poshtkuk Rostam	0	0	0	0	0	0	0	0
Khuzestan	Susan Sharghi	31	4,536	3,818	2,669	2,814	286	187	1,175
	Susan Gharbi	75	9,298	7,733	5,870	5,332	627	1,155	5,048
	Pian	63	9,650	8,089	5,857	5,502	595	760	5,614
	Donbaleh rud Shoma	55	6,008	4,940	3,939	3,444	330	412	3,189
	Dehdez	43	8,568	7,184	5,164	4,983	482	821	5,414
	Donbaleh rud Janubi	36	6,155	5,131	3,953	3,560	354	253	3,373
	Humei Sharghi	60	11,219	9,329	6,862	6,522	644	624	7,095
	Chelo	66	9,469	8,670	7,793	7,509	7,256	5,012	6,991
	Deirou Kotak	47	3,452	2,794	2,074	1,955	176	152	1,295
	Shelal deshtgole	57	3,442	2,816	2,184	2,021	172	164	1,264
	Kusuk	68	14,903	13,734	12,147	12,015	8,348	8,291	12,656
	Agzhadan	29	0	0	0	0	0	0	0
	Ghalea Khajeh	37	10,771	8,957	6,552	6,256	611	393	6,080
	Dezful	0	0	0	0	0	0	0	0

Source: Census 1375 (1996)

Note: "0" is no exist village within the study area.

* Economically active population

Table H-2-1 (1) Health Facilities and Electricity by Administrative Division

Province	Township	Rural district	No. of village	Health house	Health center	Electricity
Chaharmahal va Bakhtiyari	Shahre Kord	Humeh	11	9	5	10
		Vardenjan	13	7	6	13
		Lar	16	10	5	14
		Saman	0	0	0	0
		Taghanak	8	6	2	8
		Kiar Sharghi	15	9	3	13
		Kiar Gharbi	15	8	5	14
	Borujen	Humeh	13	2	2	9
		Gandoman	25	16	7	32
		Choghkhur	14	7	3	14
	Farsan	Misuj Sofla	9	7	5	9
		Misuj Olia	21	13	4	19
		Shurab Tangzi	53	n.d	n.d	n.d
		Doab	52	14	2	13
		Dasht Zarrin	47	11	0	36
		Miankuh Moguei	0	0	0	0
		Bazoft	51	16	3	14
	Ardal	Poshtkuh	26	11	3	23
		Dinarian	31	5	2	14
		Naghan	13	5	3	13
		Mashayekh	23	11	3	21
		Miankuh	27	9	5	24
		Shalil	36	3	2	5
	Lordegan	Khan Mirza	33	18	4	38
		Armand	21	7	1	14
		Menj	25	8	1	21
		Barez	40	37	8	0
		Milas	51	14	3	35
		Sardasht	66	4	1	14
		Rig	22	7	2	22
		Poshtkuh	31	n.d	n.d	n.d
		Felard	35	n.d	n.d	n.d
Kohgiluyeh va Boyerahmad	Boyerahmad	Zilayi	82	5	1	0
		Margun	215	11	1	29
		Sadat Mahmudi	68	10	2	41
		Pataveh	97	10	2	56
		Dena	44	5	1	30
		Kabkiyan	113	12	3	69
		Chin	0	0	0	0
		Ludab	0	0	0	0
		Sarude Shomali	45	8	1	41
		Kakan	33	2	1	13
		Sasude Jonubi	119	15	5	88
		Dashterum	70	7	1	42
		Sepidar	124	8	1	50

Table H-2-1 (2) Health Facilities and Electricity by Administrative Division

Province	Township	Rural district	No. of village	Health house	Health center	Electricity
Kohgiluyeh va Boyer-Ahmad	Kohgiluyeh	Ajam	43	n.d	n.d	n.d
		E. Tayebi Sharghi	0	0	0	0
		W. Tayebi Sharghi	0	0	0	0
		Charam	0	0	0	0
Esfahan	Semirom	Vardasht	56	12	2	51
		Vanak	4	2	1	3
		Hana	7	3	1	7
		Padna Sofla	14	4	1	12
		Padna Vasati	13	5	2	13
		Padna Olia	29	11	1	28
	Lanjan	Chamkuh	0	0	0	0
		Zirkuh	0	0	0	0
		Chamrud	0	0	0	0
	Mobarakeh	Gharkau Jonubi	0	0	0	0
		Takhunche	0	0	0	0
	Shahreza	Hamgin	0	0	0	0
		Muza Abad	0	0	0	0
		Kahruiyeh	0	0	0	0
		Esfarjan	4	n.d	n.d	n.d
		Izad Khast	0	0	0	0
Fars	Eghlid	Kosro va Shirin	3	n.d	n.d	n.d
		Desh Kord	16	n.d	n.d	n.d
	Sepidan	Kamhar	11	3	1	10
		Khafri	70	12	1	30
	Mamasani	Jozar	0	0	0	0
		Poshtkuk Rostam	0	0	0	0
Khuzestan	Izeh	Susan Sharghi	31	1	0	0
		Susan Gharbi	75	10	0	0
		Pian	63	8	1	15
		Donbaleh rud Shomali	55	9	0	6
		Dehdez	43	9	1	14
		Donbaleh rud Janubi	36	6	0	0
		Humei Sharghi	60	11	4	25
	Masjed Soleyman	Chelo	66	4	1	0
		Delrou Kotak	47	2	0	0
		Shelal deshtgole	57	5	1	0
		Kusuk	68	9	3	19
		Agzhadan	29	n.d	n.d	n.d
		Ghalea Khajeh	37	14	3	16
	Dezful	Dezful	0	0	0	0

Source: Census 1375 (1996)

Note: "0" is no exist village within the study area.

Table H-2-2 (1) Post and Telecommunication Facilities, and Transportation in Rural District

Province	Township	Rural district	No. of village	Post box	Post office	Telegraph	Telephone	Transport.
Chaharmahal va Bakhtiari	Shahre Kord	Humeh	11	9	7	1	10	8
		Vardenjan	13	8	4	0	7	9
		Lar	16	10	8	4	10	9
		Saman	0	0	0	0	0	0
		Taghanak	8	7	3	1	8	6
		Kiar Sharghi	15	9	7	1	8	8
		Kiar Gharbi	15	11	7	3	10	10
	Borujen	Humeh	13	3	3	2	5	5
		Gandoman	25	15	7	1	13	20
		Choghkhur	14	5	5	0	7	7
	Farsan	Misuj Sofla	9	7	4	1	7	9
		Misuj Olia	21	7	3	1	6	13
		Shurab Tangzi	53	0	0	0	0	0
		Doab	52	4	3	0	1	7
		Dasht Zarrin	47	6	1	0	4	20
		Miankuh Moguei	0	0	0	0	0	0
		Bazoft	51	8	3	0	8	12
	Ardal	Poshtkuh	26	14	8	4	16	17
		Dinaran	31	6	2	0	5	11
		Naghan	13	7	2	1	7	9
		Mashayekh	23	5	1	0	3	7
		Miankuh	27	4	2	0	1	16
		Shalil	36	2	1	0	1	9
	Lordegan	Khan Mirza	33	11	3	0	23	29
		Armand	21	3	2	0	6	12
		Menj	25	3	3	0	5	12
		Barez	40	1	0	0	0	17
		Milas	51	10	4	0	16	28
		Sardasht	66	2	0	0	3	9
		Rig	22	7	3	0	7	15
		Poshtkuh	31	0	0	0	0	0
		Felard	35	0	0	0	0	0
Kohgiluyeh va Boyerahmad	Boyerahmad	Zilayi	82	n.d	n.d	n.d	1	n.d
		Margun	215	n.d	n.d	n.d	6	n.d
		Sadat Mahmudi	68	n.d	n.d	n.d	8	n.d
		Pataveh	97	n.d	n.d	n.d	17	n.d
		Dena	44	n.d	n.d	n.d	12	n.d
		Kabkiyan	113	n.d	n.d	n.d	11	n.d
		Chin	0	n.d	n.d	n.d	1	n.d
		Ludab	0	n.d	n.d	n.d	5	n.d
		Sarude Shomali	45	n.d	n.d	n.d	18	n.d
		Kakan	33	n.d	n.d	n.d	1	n.d
		Sasude Jonubi	119	n.d	n.d	n.d	30	n.d
		Dashterum	70	n.d	n.d	n.d	6	n.d
		Sepidar	124	n.d	n.d	n.d	11	n.d

Table H-2-2 (2) Post and Telecommunication Facilities, and Transportation in Rural District

Province	Township	Rural district	No. of village	Post box	Post office	Telegraph	Telephone	Transport.
Kohgiluyeh va Boyerahmad	Kohgiluyeh	Ajam	43	n.d	n.d	n.d	n.d	n.d
		E. Tgayebi Sharghi	0	n.d	n.d	n.d	n.d	n.d
		W. Tayebi Sharghi	0	n.d	n.d	n.d	n.d	n.d
		Charam	0	n.d	n.d	n.d	n.d	n.d
Esfahan	Semirom	Vardasht	56	5	4	0	4	22
		Vanak	4	2	2	0	2	2
		Hana	7	1	1	1	1	2
		Padna Sofla	14	3	1	0	2	9
		Padna Vasati	13	3	2	0	5	7
		Padna Olia	29	3	3	0	4	11
	Lanjan	Chamkuh	0	0	0	0	0	0
		Zirkuh	0	0	0	0	0	0
		Chamrud	0	0	0	0	0	0
	Mobarakeh	Gharkau Jonubi	0	0	0	0	0	0
		Takhunche	0	0	0	0	0	0
	Shahreza	Hamgin	0	0	0	0	0	0
		Muza Abad	0	0	0	0	0	0
		Kahruiyeh	0	0	0	0	0	0
		Esfarjan	4	n.d	n.d	n.d	n.d	n.d
		Izad Khast	0	0	0	0	0	0
Fars	Eghlid	Kosro va Shirin	3	n.d	n.d	n.d	n.d	n.d
		Desh Kord	16	n.d	n.d	n.d	n.d	n.d
	Sepidan	Kamhar	11	0	0	0	0	2
		Khafri	70	1	1	0	0	10
	Mamasani	Jozar	0	0	0	0	0	0
		Poshtkuk Rostam	0	0	0	0	0	0
Khuzestan	Izeh	Susan Sharghi	31	0	0	0	0	2
		Susan Gharbi	75	1	1	0	0	10
		Pian	63	1	1	0	3	5
		Donbaleh rud Shom	55	0	0	0	1	9
		Dehdez	43	3	2	2	2	5
		Donbaleh rud Janub	36	0	0	0	4	12
		Humeh Sharghi	60	2	1	2	14	32
	Masjed Soleyman	Chelo	66	0	0	0	0	2
		Delrou Kotak	47	0	0	0	0	1
		Shelal deshtigole	57	0	0	0	0	5
		Kusuk	68	3	3	0	5	13
		Agzhadan	29	n.d	n.d	n.d	n.d	n.d
		Ghalea Khajeh	37	1	1	0	7	24
	Dezful	Dezful	0	0	0	0	0	0

Source: Census 1375 (1996)

Note: "0" is no exist village within the study area.

Table H-3-1-1-1 Tribal Population of Chaharmahal va Bakhtiari Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family (nos)	Population	Family (nos)
Ardal Township	23,144	3,264	5,454	821
Bakhtiari tribe	23,144	3,264	5,454	821
Borujen Township	4,280	647	304	49
Bakhtiari tribe	1,390	199	304	49
Garghoyeh tribe	1,763	320	0	0
Ghashghay	1,127	128	0	0
Shahre Kord Township	1,141	160	24	4
Bakhtiari tribe	1,141	160	24	4
Farsan Township	61,952	8,857	3,448	499
Bakhtiari tribe	61,952	8,857	3,448	499
Lordegan Township	41,814	6,593	41,613	6,558
Bakhtiari tribe	41,666	6,565	41,613	6,558
Garghoyeh tribe	148	28	0	0
Province	132,331	19,561	50,843	7,931

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-1-2 Settled Population of Nomadic Tribes in Chaharmahal va Bakhtiari Province

Name of Nomadic Tribe	Summer Period		Winter Period	
	1,366	1,377	1,366	1,377
Bakhtiari tribe	133,947	129,293	40,957	50,843
Boyerahmad Sofla tribe	0	0	158	0
Garghoyeh tribe	2,416	1,911	0	0
Ghashghay tribe	328	1,127	0	0

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-2 -1 (1) Tribal Population of Kohgiluyeh va Boyerahmad Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Boyerahmad Township	53,192	7,835	15,805	2,400
Boyerahmad sofia tribe	23,144	3,264	5,454	821
Boyerahmad olia tribe	16,579	2,358	2,758	416
Behmayeh tribe	136	19	0	0
Charam tribe	332	45	0	0
Doshman zilaye tribe	6,391	1,000	188	31
Tayebi tribe	262	42	27	3
Ghashghay tribe	3,857	587	0	0
Mamasani tribe	2,495	357	0	0
Kohgiluyeh Township	36,288	5,187	50,553	7,327
Boyerahmad sofia tribe	3,298	456	11,834	1,692
Boyerahmad olia tribe	0	0	389	51
Behmayeh tribe	9,799	1,318	9,124	1,226
Charam tribe	7,086	1,111	7,210	1,125
Doshman zilaye tribe	816	138	7,019	1,107
Tayebi tribe	15,289	2,164	14,977	2,126
Gachsaran Township	3,471	457	14,046	2,013
Basht va Babuyeh tribe	3,270	427	3,270	427

Table H-3-1-2 -1 (2) Tribal Population of Kohgiluyeh va Boyerahmad Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Boyerahmad sofia tribe	0	0	1,532	206
W.Boyerahmad tribe	159	25	159	25
Boyerahmad olia tribe	0	0	3,241	451
Charam tribe	0	0	208	31
Ghashghay tribe	42	5	5,636	873
Province	92,951	13,479	80,404	11,740

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-2 -2 Settled Population of Nomadic Tribes in Kohgiluyeh va Boyerahmad Provinc

Name of Nomadic Tribe	Summer Period		Winter Period	
	1,366	1,377	1,366	1,377
Basht va Babuyeh tribe	3,586	3,270	3,586	3,270
Boyerahmad sofia tribe	38,667	26,438	38,242	26,198
W.Boyerahmad tribe	127	159	127	159
Boyerahmad olia tribe	18,641	16,579	7,754	6,388
Behmayeh tribe	15,555	9,935	14,035	9,124
Charam tribe	6,457	7,418	6,457	7,418
Doshman zilaye tribe	9,745	7,207	9,745	7,207
Tayebi tribe	17,438	15,551	16,564	15,004
Ghashghay tribe	57	3,899	4,170	5,636
Mamasani tribe	1,495	2,495	0	0
Province	111,768	92,951	100,680	80,404

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-3-1 Tribal Population of Esfahan Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Esfahan Township	118	19	3,178	574
Garghoyeh tribe	118	19	3,178	574
Semīrom Township	29,893	4,587	86	12
Garghoyeh tribe	463	86	0	0
Ghashghay tribe	29,430	4,501	86	12
Shahreza Township	2,269	362	14	2
Garghoyeh tribe	100	16	0	0
Ghashghay tribe	2,169	346	14	2
Fereidon Township	4,644	677	0	0
Bakhtiyari tribe	4,644	677	0	0
Fereidon shahr Township	13,211	1,959	0	0
Bakhtiyari tribe	13,211	1,959	0	0
Lanjan Township	0	0	85	12
Bakhtiyari tribe	0	0	85	12
Province	50,135	7,604	3,363	600

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-3 -2 Settled Population of Nomadic Tribes in Esfahan Province

Name of Nomadic Tribe	Summer Period		Winter Period	
	1,366	1,377	1,366	1,377
Bakhtiyari tribe	17,013	17,855	879	85
Garghoyeh tribe	880	681	4,123	3,178
Ghashghay tribe	35,149	31,599	107	100
Province	53,042	50,135	5,109	3,363

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-4-1 Tribal Population of Fars Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Abadeh Township	8,506	1,446	463	68
Garghoyeh tribe	586	105	0	0
Khamseh tribe	3,226	535	427	62
Ghashghay tribe	4,694	806	36	6
Arsangan Township	1,016	166	1,231	212
Khamseh tribe	832	135	0	0
Gashni-gashni clan	184	31	1,231	212
Estahban Township	0	0	1,421	217
Khamseh tribe	0	0	1,421	217
Eghlid Township	32,230	5,309	83	16
Khamseh tribe	4,549	808	83	16
Ghashghay tribe	27,681	4,501	0	0
Bovanat Township	12,970	2,051	193	38
Khamseh tribe	10,286	1,593	57	14
Gashni-gashni clan	1,606	280	136	24
Chaharahi clan	846	139	0	0
Charay clan	232	39	0	0
Gahrom Township	1,274	207	8,190	1,398
Khamseh tribe	1,274	207	6,189	1,058
Bakhtiyari tribe	0	0	2,001	340
Darab Township	4,193	553	11,027	1,592
Boyerahmad olia tribe	0	0	38	5
Khamseh tribe	2,626	351	9,422	1,385
Darab clan	1,567	202	1,567	202
Sepidan Township	14,190	2,244	1,287	200
Ghashghay tribe	12,034	1,912	1,287	200
Mamasani tribe	2,156	332	0	0
Province	145,988	23,031	169,554	26,334

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-4-2 Settled Population of Nomadic Tribes in Fars Province

Name of Nomadic Tribe	Summer Period		Winter Period	
	1,366	1,377	1,366	1,377
Bakhtiyari tribe	0	0	0	8
Boyerahmad olia tribe	1,755	142	12,642	10,333
Garghoyeh tribe	827	586	0	0
Khamseh tribe	31,715	38,734	31,715	38,522
Ghashghay tribe	76,896	74,350	88,827	85,816
Mamasani tribe	18,617	12,424	20,112	14,919
Gabalomaroyeh clan	2,417	1,155	2,417	1,155
Gashmi-gashmi clan	1,502	1,790	1,502	1,790
Chaharahi clan	757	846	757	846
Abdolhoseini clan	0	202	0	202
Charay clan	0	232	0	232
Koshmareh garogh clan	5,881	4,615	5,881	4,615
Koshmareh sorkhi clan	9,233	6,669	9,233	6,669
Koshmareh nodan clan	2,674	1,861	2,674	1,861
Aniother clan of Firozabad	1,015	646	1,015	646
Aniother clan of Garash	0	169	0	169
Aniother clan of Darab	2,026	1,567	2,026	1,567
Meimandi clan	0	0	213	204
Province	156,681	147,365	180,380	170,931

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-5-1 (1) Tribal Population of Khuzestan Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Omidieh Township	0	0	242	33
Behmay tribe	0	0	188	25
Zelky tribe	0	0	14	3
Tayabi tribe	0	0	40	5
Andimeshk Township	759	104	18,939	2,773
Biranvand tribe	0	0	1,425	208
Papi tribe	0	0	2,667	378
Tork-yaron taghlo tribe	0	0	638	93
Torkashvand tribe	0	0	3,204	447
Husanvand tribe	0	0	487	74
Derikvand tribe	759	104	4,012	560
Sagvand tribe	0	0	1,270	187
Meivand-meivand tribe	0	0	4,130	665
Dalvand clan	0	0	9	1
Sadat ahogalandar clan	0	0	1,078	156
Sadat fadaleh omran clan	0	0	14	3
Kaed rahmat-maed rahmat	0	0	5	1
Ahvaz Township	181	18	107	13
Boghlani clan	30	3	0	0
Barisaleh clan	19	3	37	6
Banikab clan	0	0	31	4
Chonaneh clan	0	0	39	3
Hazrag clan	132	12	0	0

Table H-3-1-5-1 (2) Tribal Population of Khuzestan Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Izeh Township	17,623	2,701	36,085	5,272
Bakhtiyari tribe	17,423	2,671	35,760	5,228
Behmay tribe	200	30	44	8
Tayebi tribe	0	0	281	36
Baghmalek Township	5,365	826	4,951	769
Bakhtiyari tribe	1,716	267	1,915	296
Behmay tribe	3,649	559	3,036	473
Bundarmah shahr Township	309	48	309	48
Banikab clan	309	48	309	48
Behbahan Township	0	0	1,021	148
Bakhtiyari tribe	0	0	67	9
Boyerahmad sofia tribe	0	0	240	35
Behmay tribe	0	0	369	51
Tayebi tribe	0	0	226	36
Ghashghay tribe	0	0	119	17
Dezful Township	5,141	896	34,580	5,480
Bakhtiyari tribe	2,900	468	18,951	2,875
Papi tribe	0	0	49	5
Zelki tribe	2,233	427	3,236	589
Mivand-mamivand tribe	8	1	12,344	2,011
Dasht azadegan Township	1,304	137	1,197	126
Banisaleh clan	795	80	777	77
Banikab clan	31	4	0	0
Chananeh clan	68	7	29	4
Hazrag clan	371	43	352	42
Khafagihbadvi clan	39	3	39	3
Ramhormoz Township	199	29	2,711	385
Bakhtiyari tribe	199	29	1,477	205
Behmay tribe	0	0	1,023	143
Ghashghay tribe	0	0	211	37
Shadgan Township	450	61	480	64
Baghlani clan	0	0	30	3
Salehi clan	229	32	229	32
Zahiri clan	79	11	79	11
Farhani clan	142	18	142	18
Shush Township	525	55	1,171	147
Tork-yarom taghlo clan	0	0	47	7
Tork ashvand tribe	0	0	163	25
Zalki tribe	0	0	213	38
Sagvand tribe	0	0	16	2
Mivand-mamivand tribe	42	6	42	6
Chenaneh clan	283	32	170	19
Hazrag clan	161	13	312	26
Gofagihbadvi clan	39	4	39	4
Kolivan-lorestan clan	0	0	129	20
Shushtar Township	148	29	4,598	679
Bakhtiyari tribe	148	29	3,842	573
Mivand-mamivand tribe	0	0	756	106

Table H-3-1-5-1 (3) Tribal Population of Khuzestan Province

Name of Nomadic Tribe by Township	Summer Period		Winter Period	
	Population	Family	Population	Family
Masjed Soleyman Township	11,890	2,019	68,602	10,046
Bakhtiyari tribe	11,654	1,982	68,557	10,041
Zalki tribe	236	37	0	0
Sadat ahoghalanddar clan	0	0	45	5
Province	43,894	6,923	174,993	25,983

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-1-5-2 Settled Population of Nomadic Tribes in Khuzestan Province

Name of Nomadic Tribe	Summer Period		Winter Period	
	1,366	1,377	1,366	1,377
Arakvazi tribe	149	0	0	0
Bakhtiyari tribe	30,208	34,040	139,941	130,569
Boyerahmad sofia tribe	0	0	267	240
Behmay tribe	4,731	3,849	6,251	4,660
Birandand tribe	0	0	1,026	1,425
Papi tribe	18	0	3,640	2,716
Tork-yorom taghlo tribe	0	0	496	685
Tork-ashvand tribe	0	0	2,176	3,367
Hasanvand tribe	0	0	440	487
Derikvand tribe	1,131	759	3,747	4,012
Delfan novand tribe	0	0	274	0
Zelki tribe	2,032	2,469	2,797	3,463
Sagvand tribe	0	0	1,576	1,286
Tayebi tribe	0	0	874	547
Ghashghay tribe	0	0	725	330
Meivand-mamivand tribe	10	50	17,000	17,272
Ebnesakin ind. Clan	19	0	19	0
Goghlani ind. Clan	20	30	20	30
Banisaleh ind. Clan	520	814	520	814
Banitaraf ind. Clan	304	0	304	0
Banikab ind. Clan	273	340	273	340
Chananeh ind. Clan	325	351	237	238
Hazrag ind. Clan	563	664	563	664
Khafagihbadvi ind. Clan	18	78	18	78
Dalvand ind. Clan	0	0	46	9
Sadat ahoghalandar ind. clan	0	0	1,281	1,123
Sadat fadaleh omran ind. clan	0	0	0	14
Salehi ind. Clan	35	229	35	229
Zahiri ind. Clan	19	79	19	79
Farhani ind. Clan	109	142	109	142
Kaedr rahmat-naed rahmat	0	0	14	5
Kolivand ind. Clan	0	0	158	0
Kolivand lorestan ind. clan	0	0	0	169
Matori ind. Clan	39	0	39	0
Total	40,523	43,894	184,885	174,993

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-2-1 Seasonal Migration of Nomadic Family in Chaharmahal va Bakhtiari Province

Distance of migration	Summer Period		Winter Period	
	Number	Percent	Number	Percent
No migration	361	1.8%	120	1.5%
Less than 10 km	1,187	6.1%	898	11.3%
10 to 19 km	1,709	8.7%	1,526	19.2%
20 to 29 km	834	4.3%	745	9.4%
30 to 39 km	1,210	6.2%	946	11.9%
40 to 49 km	797	4.1%	617	7.8%
50 to 74 km	2,047	10.5%	1,793	22.6%
75 to 99 km	397	2.0%	238	3.0%
100 to 149 km	973	5.0%	279	3.5%
150 to 199 km	671	3.4%	40	0.5%
200 km and more	9,375	47.9%	729	9.2%
Total	19,561	100.0%	7,931	100.0%

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-2-2 Seasonal Migration of Nomadic Family in Kohgiluyeh va Boyer-Ahmad Province

Distance of migration	Summer Period		Winter Period	
	Number	Percent	Number	Percent
No migration	566	4.2%	545	4.6%
Less than 10 km	467	3.5%	400	3.4%
10 to 19 km	1,164	8.7%	911	7.8%
20 to 29 km	891	6.7%	719	6.1%
30 to 39 km	1,322	9.9%	1,198	10.2%
40 to 49 km	1,181	8.8%	935	8.0%
50 to 74 km	1,760	13.2%	1,530	13.0%
75 to 99 km	1,083	8.1%	801	6.8%
100 to 149 km	1,386	10.4%	1,192	10.2%
150 to 199 km	1,488	11.1%	1,282	10.9%
200 km and more	2,071	15.5%	2,227	19.0%
Total	13,379	100.0%	11,740	100.0%

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-2-3 Seasonal Migration of Nomadic Family in Esfahan Province

Distance of migration	Summer Period		Winter Period	
	Number	Percent	Number	Percent
No migration	615	8.1%	9	1.5%
Less than 10 km	21	0.3%	13	2.2%
10 to 19 km	5	0.1%	3	0.5%
20 to 29 km	8	0.1%	4	0.7%
30 to 39 km	16	0.2%	34	5.7%
40 to 49 km	5	0.1%	19	3.2%
50 to 74 km	36	0.5%	44	7.3%
75 to 99 km	23	0.3%	45	7.5%
100 to 149 km	203	2.7%	161	26.8%
150 to 199 km	71	0.9%	125	20.8%
200 km and more	6,601	86.8%	143	23.8%
Total	7,604	100.0%	600	100.0%

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-2-4 Seasonal Migration of Nomadic Family in Fars Province

Distance of migration	Summer Period		Winter Period	
	Number	Percent	Number	Percent
No migration	1,688	7.3%	1,800	6.8%
Less than 10 km	2,530	11.0%	2,590	9.8%
10 to 19 km	1,249	5.4%	1,507	5.7%
20 to 29 km	1,061	4.6%	1,213	4.6%
30 to 39 km	635	2.8%	736	2.8%
40 to 49 km	450	2.0%	645	2.4%
50 to 74 km	1,227	5.3%	1,468	5.6%
75 to 99 km	829	3.6%	1,050	4.0%
100 to 149 km	1,109	4.8%	1,422	5.4%
150 to 199 km	1,148	5.0%	1,342	5.1%
200 km and more	11,116	48.2%	12,561	47.7%
Total	23,042	100.0%	26,334	100.0%

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-2-5 Seasonal Migration of Nomadic Family in Khuzestan Province

Distance of migration	Summer Period		Winter Period	
	Number	Percent	Number	Percent
No migration	1,688	7.3%	1,800	6.8%
Less than 10 km	2,530	11.0%	2,590	9.8%
10 to 19 km	1,249	5.4%	1,507	5.7%
20 to 29 km	1,061	4.6%	1,213	4.6%
30 to 39 km	635	2.8%	736	2.8%
40 to 49 km	450	2.0%	645	2.4%
50 to 74 km	1,227	5.3%	1,468	5.6%
75 to 99 km	829	3.6%	1,050	4.0%
100 to 149 km	1,109	4.8%	1,422	5.4%
150 to 199 km	1,148	5.0%	1,342	5.1%
200 km and more	11,116	48.2%	12,561	47.7%
Total	23,042	100.0%	26,334	100.0%

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-1-1 Home Assets of Nomadic Family in Chaharmahal va Bakhtiari Province

Period	Radio/tape recorder	T.V	Oil lamp	Gas/oil stove
Summer	26.6	6.7	54.3	44.7
Winter	31.6	10.5	82.4	76.7
Period	Heater	Sewing machine	None of them	
Summer	14.1	15.4	34.6	
Winter	28.9	19.4	8.2	

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-1-2 Fuel for Home Use of Nomadic Family in Chaharmahal va Bakhtiari Province

Period	Wood/charcoal	Animal dung	Gas/gas oil/oil	Others
Summer	93.4	2.2	4.1	0.2
Winter	96.0	0	3.8	0.2

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-1-3 Income derived from the Activities of Nomadic Family in Chaharmahal va Bakhtiari Province

Summer Period	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	23.5	63.5	0.6	11.6
Partner with tribes	0.1	0.1	0	0
Partner with non tribes	0	0	0	0
Belonging to non tribes	0.4	0	0	0
Winter Period	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	23.5	63.5	0.6	11.6
Partner with tribes	0.1	0.1	0	0
Partner with non tribes	0	0	0	0
Belonging to non tribes	0.4	0	0	0

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-1-4 Selling Type of Husbandry Products of Nomadic Family in Chaharmahal va Bakhtiari Province

Period	Peddler	Cooperative	Others	No selling
Summer	3,641	315	6,864	8,741
Winter	2,343	61	4,404	1,123

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-1-5 Selling Type of Handicraft of Nomadic Family in Chaharmahal va Bakhtiari Province

Period	Peddler	Cooperative	Others	No selling
Summer	269	26	1,100	18,166
Winter	91	19	309	7,512

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-2-1 Home Assets of Nomadic Family in Kohgiluyeh va Boyerahmad Province

Period	Percent			
	Radio/tape recorder	T.V	Oil lamp	Gas/oil stove
Summer	36.9	8.1	63.6	44.4
Winter	36.9	8.4	63.6	45.4
Period	Heater	Sewing machine	None of them	
Summer	35.2	22.2	17.4	
Winter	36.9	22.8	16.8	

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-2-2 Fuel for Home Use of Nomadic Family in Kohgiluyeh va Boyerahmad Province

Period	Percent			
	Wood/charcoal	Animal dung	Gas/gas oil/oil	Others
Summer	87.9	0.1	11.8	0.2
Winter	90.1	0	9.7	0.2

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-2-3 Income derived from the Activities of Nomadic Family in Kohgiluyeh va Boyerahmad Province

Summer Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	17.9	54.7	1.1	22.1
Partner with tribes	0.4	0.3	0	0.2
Partner with non tribes	1.7	0.3	0	0.3
Belonging to non tribes	0.8	0	0	0

Winter Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	18.2	54.7	1.3	22
Partner with tribes	0.5	0.3	0	0.2
Partner with non tribes	1.6	0.2	0	0.2
Belonging to non tribes	0.9	0	0	0

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-2-4 Selling Type of Handicraft of Nomadic Family in Kohgiluyeh va Boyerahmad Province

Period	Peddler	Cooperative	Others	No selling
Summer	860	53	1,104	11,462
Winter	739	41	980	9,980

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-2-5 Selling Type of Husbandry Products of Nomadic Family in Kohgiluyeh va Boyerahmad Province

Period	Peddler	Cooperative	Others	No selling
Summer	5,340	197	5,200	2,742
Winter	4,647	197	4,445	2,452

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-1 Home Assets of Nomadic Family in Esfahan Province

Period	Percent			
	Radio/tape recorder	T.V	Oil lamp	Gas/oil stove
Summer	35.9	5.7	65.0	69.8
Winter	64.8	43.5	50.5	96.8
Period	Heater	Sewing machine	None of them	
Summer	24.3	27.1	16.3	
Winter	49.5	36.0	0.3	

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-2 Fuel for Home Use of Nomadic Family in Esfahan Province

Period	Percent			
	Wood/charcoal	Animal dung	Gas/gas oil/oil	Others
Summer	87.3	0.5	12.1	0.1
Winter	11.5	0	88.5	0

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-3 Income derived from the Activities of Nomadic Family in Esfahan Province

Summer Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	47.3	27.9	3.4	18.3
Partner with tribes	0.3	0.4	0	0.1
Partner with non tribes	1.5	0	0	0.1
Belonging to non tribes	0.7	0	0	0

Winter Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	76.5	4.4	0	2.0
Partner with tribes	2.0	0.3	0	0
Partner with non tribes	1.4	0	0	0
Belonging to non tribes	13.5	0	0	0

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-4 Selling Type of Handicraft of Nomadic Family in Esfahan Province

Period	Peddler	Cooperative	Others	No selling
Summer	273	14	1,389	5,928
Winter	99	0	282	219

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-5 Selling Type of Husbandry Products of Nomadic Family in Esfahan Province

Period	Peddler	Cooperative	Others	No selling
Summer	491	16	2,440	4,657
Winter	88	3	492	17

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-4-1 Home Assets of Nomadic Family in Fars Province

Period	Percent			
	Radio/tape recorder	T.V	Oil lamp	Gas/oil stove
Summer	40.2	6.1	67.8	71.9
Winter	41.4	5.8	69.5	71.1
Period	Heater	Sewing machine	None of them	
Summer	20.6	23.2	12.6	
Winter	23.2	25.2	12.4	

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-4-2 Fuel for Home Use of Nomadic Family in Fars Province

Period	Percent			
	Wood/charcoal	Animal dung	Gas/gas oil/oil	Others
Summer	84.9	0.6	14.3	0.2
Winter	85	0.5	14.2	0.2

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-4-3 Income derived from the activities of Nomadic Family in Fars Province

Summer Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	50.1	31.2	1.8	13.4
Partner with tribes	0.4	0.3	0	0.1
Partner with non tribes	1.2	0.1	0	0.1
Belonging to non tribes	0.9	0	0	0

Winter Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	46.3	32.1	2.2	12.3
Partner with tribes	0.4	0.2	0	0.1
Partner with non tribes	1.4	0.1	0	0.1
Belonging to non tribes	0.8	0	0	0

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-4-4 Selling Type of Handicraft of Nomadic Family in Fars Province

Period	Peddler	Cooperative	Others	No selling
Summer	1,259	361	4,339	17,072
Winter	1,344	354	4,703	19,933

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-4-5 Selling Type of Husbandry Products of Nomadic Family in Fars Province

Period	Peddler	Cooperative	Others	No selling
Summer	7,669	199	8,135	7,028
Winter	8,250	196	9,836	8,052

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-3-3-5-1 Home Assets of Nomadic Family in Khuzestan Province

Period	Percent			
	Radio/tapeorder	T.V	Oil lamp	Gas/oil stove
Summer	37.1	1.8	50.5	32.9
Winter	30.3	3.3	47.8	32.9
Period	Heater	Sewing machine	None of them	
Summer	4.2	19.9	33.4	
Winter	6.5	12.1	38.6	

Data source: Socioeconomic Census of Nomadic Tribes,1377 (1999)

Table H-3-3-5-2 Fuel for Home Use of Nomadic Family in Khuzestan Province

Period	Percent			
	Wood/charcoal	Animal dung	Gas/gas oil/oil	Others
Summer	96.9	0.6	2.1	0.4
Winter	93.5	2.8	3.5	0.3

Data source: Socioeconomic Census of Nomadic Tribes,1377 (1999)

Table H-3-3-5-3 Income derived from the Activities of Nomadic Family in Khuzestan Province

Summer Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	17.1	42.3	2.8	36.3
Partner with tribes	0.5	0.3	0	0.2
Partner with non tribes	0.2	0.2	0	0
Belonging to non tribes	0	0	0	0

Winter Period	Percent			
	Only animal husbandry	Animal husbandry and agriculture	Animal husbandry and orchard	Animal husbandry, agriculture and orchard
Individual	28.5	52.8	1.2	16.7
Partner with tribes	0.2	0.2	0	0.1
Partner with non tribes	0.1	0.1	0	0
Belonging to non tribes	0.1	0	0	0

Data source: Socioeconomic Census of Nomadic Tribes,1377 (1999)

Table H-3-3-5-4 Selling Type of Handicraft of Nomadic Family in Khuzestan Province

Period	Peddler	Cooperative	Others	No selling
Summer	25	1	312	6,585
Winter	187	14	1,006	24,776

Data source: Socioeconomic Census of Nomadic Tribes,1377 (1999)

Table H-3-3-5-5 Selling Type of Husbandry Products of Nomadic Family in Khuzestan Province

Period	Peddler	Cooperative	Others	No selling
Summer	836	26	2,858	3,203
Winter	3,511	512	7,032	14,928

Data source: Socioeconomic Census of Nomadic Tribes,1377 (1999)

Table H-4-1-1 Area of Agricultural Land and Orchard by Sub-basin

Unit: ha

Sub-basin	Farmland				Orchard		
	Cultivated area w/irri.	Cultivated area w/dry f.	Total cultivated area	Fallow area	Orchard w/irri.	Orchard w/dry f.	Total Orchard
K1	12,985	3,334	16,319	10,846	2,281	9	2,290
K2	1,986	3,551	5,537	3,201	286	0	286
K3	2,078	14,168	16,246	11,021	640	0	640
K4	9,489	5,896	15,385	9,977	1,627	0	1,627
K5	885	6,745	7,630	4,327	203	0	203
K6	8,661	6,149	14,810	5,797	241	0	241
K7	29,489	28,767	58,256	29,894	6,161	243	6,404
K8	2,700	36,174	38,874	11,179	1,009	0	1,009
Total	68,273	104,788	173,061	86,242	12,448	252	12,700

Data source: Rural Research Center, Ministry of Construction Jihad. (Based on Agricultural Statistics 1372)

Note: Data is converted by sub-basin.

Table H-4-1-2 Area of Agricultural Land and Orchard per Rural Family

Unit: ha

Sub-basin	Farmland				Orchard		
	Cultivated area w/irri.	Cultivated area w/dry f.	Total cultivated area	Fallow area	Orchard w/irri.	Orchard w/dry f.	Total Orchard
K1	1	0	1	0	0	0	0
K2	1	1	2	1	0	0	0
K3	0	2	2	2	0	0	0
K4	2	1	3	2	0	0	0
K5	0	2	2	1	0	0	0
K6	1	1	2	1	0	0	0
K7	1	1	2	1	0	0	0
K8	0	3	4	1	0	0	0
Average	1	1	2	1	0	0	0

Data source: Rural Research Center, Ministry of Construction Jihad. (Based on Agricultural Statistics 1993)

Note: Data is converted by sub-basin.

Table H-4-2-1 Agricultural Land Use by Main Crop

Unit: %

Sub-basin	Wheat	Barley	Rice	Forage	Pulses	Sugar beet	Other crops
K1	40	15	1	38	3	1	3
K2	45	13	0.2	41	0	0	1
K3	27	9	28	34	0	0	1
K4	40	11	0	37	7	1	5
K5	45	10	6	39	0	0	0
K6	13	10	10	23	36	2	6
K7	35	13	7	18	16	8	4
K8	27	19	30	10	2	0	11

Data source: Ministry of Agriculture

Note: Forage includes alfalfa, clover and other forage plants.

Pulses include bean, lentil, vitch, green bean and others.

Other crops include potatoes and vegetables.

Table H-4-2-2 Production Yield by Main Crop

Unit: kg/ha

Crop	Irrigated crops						
	Wheat	Barley	Rice	Alfalfa	Clover	Sugar beet	Beans
Basin	3,180	2,990	4,710	9,780	7,010	20,990	2,470
Country	3,149	2,816	4,173	10,758	7,711	21,223	1,240
Crop	Dry farming crops						
	Wheat	Barley	Other grains	Forage			
Basin	1,280	1,120	1,120	825			
Country	721	734	362	-			

Data source: Ministry of Agriculture (Agricultural year:1996-97)

Table H-4-3-1 Orchard Planted by Fruit in K1 to K6

Unit: %

Sub-basin	Fruit w/ kernel, grain	Grape	Walnut	Almond	Pomegranate	Other crops	Citrus
K1	5	34	14	14	-	1	33
K2	19	11	46	14	-	1	10
K3	5	38	33	7	6	1	11
K4	78	4	9	2	-	-	7
K5	1	5	67	4	17	3	4
K6	19	28	34	2	8	2	6

Data source: Ministry of Agriculture (Agricultural year: 1996-97)

Table H-4-3-2 Production Yield by Fruit in K1 to K6

Unit: kg/ha

Crop	Apple	Grape	Walnut	Almond	Apricot	Prunella	Pomegranate
Basin	18,245	9,520	1,800	1,480	6,240	6,800	6,800
Country	13,674	7,905	3,692	1,870	8,206	7,469	11,983

Data source: Ministry of Agriculture (Agricultural year:1996-97)

Table H-4-4 (1) Agricultural Land by Rural District related to Study Area

Unit: ha

Province	Township	Rural district	No. of village	Cultivated area w/irri.	Cultivated area w/dry f.	Total Culti. area	Fallow area	Orchard
Chaharmahal va Bakhtiyari	Shahre Kord	Humeh	11	2,095	144	2,240	1,643	282
		Vardenjan	13	2,202	364	2,565	2,851	245
		Lar	16	2,334	1,323	3,657	3,146	230
		Saman	0	0	0	0	0	0
		Taghanak	8	1,017	122	1,138	744	67
		Kiar Sharghi	15	2,533	38	2,571	1,039	183
		Kiar Gharbi	15	2,528	613	3,140	1,490	624
	Borujen	Humeh	13	404	0	404	164	2
		Gandoman	25	4,976	2,835	7,811	6,306	458
		Choghkhur	14	977	661	1,638	676	270
	Farsan	Misuj Sofla	9	2,213	118	2,331	215	382
		Misuj Olia	21	873	225	1,098	632	119
		Shurab Tangzi	53	2,262	482	2,744	115	146
		Doab	52	655	1,354	2,009	952	154
		Dasht Zarrin	47	1,086	1,830	2,703	1,571	75
		Miankuh Moguei	0	0	0	0	0	0
		Bazoft	51	371	335	705	627	33
	Ardal	Poshtkuh	26	680	4,484	5,164	4,551	173
		Dinarian	31	283	2,282	2,564	2,052	50
		Naghan	13	821	1,821	2,642	1,725	396
		Mashayekh	23	128	927	1,055	794	54
		Miankuh	27	55	2,580	2,635	2,333	16
		Shalil	36	25	1,769	1,794	1,443	3
	Lordegan	Khan Mirza	33	7,927	1,708	9,635	3,539	202
		Armand	21	615	949	1,564	913	25
		Menj	25	163	1,848	2,011	830	12
		Barez	40	63	1,720	1,782	500	0
		Milas	51	1,202	2,991	4,192	1,104	66
		Sardasht	66	39	921	960	264	19
		Rig	22	1,702	644	2,346	1,477	20
		Poshtkuh	31	153	772	925	741	22
		Felard	35	2,110	1,000	3,110	989	162
Kohgiluyeh va Boyerahmad	Boyerahmad	Zilayi	82	353	2,227	2,580	1,495	21
		Margun	215	2,373	1,754	4,127	1,767	344
		Sadat Mahmudi	68	395	2,097	2,493	2,594	73
		Pataveh	97	3,575	3,828	7,404	3,887	420
		Dena	44	1,093	1,165	2,258	1,494	440
		Kabkiyan	113	1,283	3,184	4,467	3,420	227
		Chin	0	0	0	0	0	0
		Ludab	0	0	0	0	0	0
		Sarude Shomali	45	2,062	423	2,485	807	385
		Kakan	33	1,665	165	1,829	509	327
		Sasude Jonubi	119	1,907	2,166	4,072	1,086	501
		Dashterum	70	1,225	1,218	2,443	983	171
		Sepidar	124	1,792	799	2,591	2,474	436

Table H-4-4 (2) Agricultural Land by Rural District related to Study Area

Province	Township	Rural district	No. of village	Cultivated area w/irri.	Cultivated area w/dry f.	Total culti. area	Fallow area	Orchard
Kohgiluyeh va Boyerahmad	Kohgiluyeh	Ajam	43	160	1,377	1,537	1,942	48
		E. Tgayebi Sharghi	0	0	0	0	0	0
		W. Tayebi Sharghi	0	0	0	0	0	0
		Charam	0	0	0	0	0	0
Esfahan	Semirom	Vardasht	56	1,937	1,910	3,847	2,306	813
		Vanak	4	120	92	212	136	55
		Hana	7	3,563	1,373	4,935	3,234	306
		Padna Sofla	14	495	511	1,006	489	237
		Padna Vasati	13	486	1,030	1,517	976	478
		Padna Olia	29	1,035	436	1,471	756	1,584
	Lanjan	Chamkuh	0	0	0	0	0	0
		Zirkuh	0	0	0	0	0	0
		Chamrud	0	0	0	0	0	0
	Mobarakeh	Gharkau Jonubi	0	0	0	0	0	0
		Takhunche	0	0	0	0	0	0
	Shahreza	Hamgin	0	0	0	0	0	0
		Muza Abad	0	0	0	0	0	0
		Kahruiyeh	0	0	0	0	0	0
		Esfarjan	4	808	13	821	334	225
		Izad Khast	0	0	0	0	0	0
Fars	Eghlid	Kosro va Shirin	3	2,205	3,711	5,915	3,336	298
		Desh Kord	16	2,504	1,645	4,141	2,820	383
	Sepidan	Kamhar	11	0	0	0	0	0
		Khafri	70	3,055	2,068	5,122	3,254	1,661
	Mamasani	Jozar	0	0	0	0	0	0
		Poshtuk Rostam	0	0	0	0	0	0
Khuzestan	Izeh	Susan Sharghi	31	42	2,318	2,360	922	0
		Susan Gharbi	75	538	6,336	6,874	942	97
		Pian	63	326	5,705	6,031	855	162
		Donbaleh rud Shoma	55	341	6,993	7,333	1,327	300
		Dehdez	43	11	10,795	10,807	5,228	118
		Donbaleh rud Janubi	36	897	6,840	7,737	2,637	301
		Humei Sharghi	60	190	6,577	6,768	1,616	21
	Andica	Chelo	66	294	1,583	1,876	1,276	56
		Delrou Kotak	47	47	1,269	1,315	910	6
		Shelal deshtgole	57	592	3,176	3,768	1,763	25
		Kusuk	68	312	5,360	5,672	654	4
		Agzhadan	29	0	0	0	0	0
		Ghalea Khajeh	37	469	12,614	13,083	658	156
	Dezful	Dezful	0	0	0	0	0	0
Total			2,761	80,636	139,618	220,033	104,315	15,169

Data source: Rural Research Center, Ministry of Construction Jihad

Note: "0" is no exist village within the study area.

Table H-5-1 Number of Livestock and Poultry by Sub-basin

Unit: per sheep capita

Sub-basin	Sheep and lamb	Goats and kids	Cows and calves	Equines	Poultry	
					Native and others	Industrials
K1	826,565	287,514	95,960	64,944	1,741,674	308,000
K2	300,000	70,000	2,200	1,700	17,600	0
K3	280,290	185,645	31,602	17,697	145,100	0
K4	444,621	900,420	24,863	5,165	116,570	10,000
K5	320,000	150,000	750	2,100	46,970	0
K6	261,283	171,622	13,590	8,912	343,500	0
K7	860,727	101,262	101,262	50,631	2,936,600	0
K8	526,512	438,760	10,969	21,938	449,730	0

Data source: Master plan study of agriculture by Ministry of Agriculture, (1996 - 1997)

Data of Livestock Service Stations, 1376

Table H-5-2-1-1 Number of Animal Husbandry of Tribal Nomads in Chaharmahal va Bakhtiari Province

Period	Sheep and lamb	Goats and kids	Cow and calves	Buffalo/young	Camel/young	Horse and colt
Summer	583,732	748,387	17,571	40	10	648
Winter	202,566	316,037	8,549	12	0	30
Period	Mule	Donkey				
Summer	5,957	21,931				
Winter	760	7,532				

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-1-2 Average Number of Animals in Previous Summer and Winter Period

Period	Average number of sheep and goat (head)	Number of head using pasture per day (1000 head/day)	Number of head grazing per day (1000 head/day)	Number of head grazing and using pasture (1000 head/day)
Summer	1,339,949	156,091	20,408	28,197
Winter	478,211	7,340	24,482	56,423

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-2-1 Number of Animal Husbandry of Tribal Nomads in Kohgiluyeh va Boyer-Ahmad Province

Period	Sheep and lamb	Goats and kids	Cow and calf	Buffalo/young	Camel/young	Horse and colt
Summer	352,076	570,773	14,892	255	182	196
Winter	324,923	504,907	12,454	209	104	166
Period	Mule	Donkey				
Summer	1,125	18,465				
Winter	1,060	15,708				

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-2-2 Average Number of Animals in Previous Summer and Winter Period

Period	Average number of sheep and goat (head)	Number of head using pasture per day (1000 head/day)	Number of head grazing per day (1000 head/day)	Number of head grazing and using pasture (1000 head/day)
Summer	915,724	107,941	3,131	8,550
Winter	870,191	64,546	19,293	110,114

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-3-1 Number of Animal Husbandry of Tribal Nomads in Esfahan Province

Period	Sheep and lamb	Goats and kids	Cow and calf	Buffalo/young	Camel/young	Horse and colt
Summer	525,350	329,536	1,873	230	324	377
Winter	46,695	79,467	28	0	10	7
Period	Mule	Donkey				
Summer	996	14,583				
Winter	18	562				

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-3-2 Average Number of Animals in Previous Summer and Winter Period

Period	Average number of sheep and goat (head)	Number of head using pasture per day (1000 head/day)	Number of head grazing per day (1000 head/day)	Number of head grazing and using pasture (1000 head/day)
Summer	828,377	75,735	9,472	14,728
Winter	125,444	434	11,669	15,858

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-4-1 Number of Animal Husbandry of Tribal Nomads in Fars Province

Period	Sheep and lamb	Goats and kids	Cow and calf	Buffalo/young	Camel/young	Horse and colt
Summer	1,411,958	1,538,654	10,347	1,002	892	715
Winter	1,597,660	1,669,904	13,442	1,102	1,234	721
Period	Mule	Donkey				
Summer	884	33,470				
Winter	1,062	41,792				

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-4-2 Average Number of Animals in Previous Summer and Winter Period

Period	Average number of sheep and goat (head)	Number of head using pasture per day (1000 head/day)	Number of head grazing per day (1000 head/day)	Number of head grazing and using pasture (1000 head/day)
Summer	2,812,205	246,499	37,446	120,979
Winter	3,325,224	209,401	28,857	412,925

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-5-1 Number of Animal Husbandry of Tribal Nomads in Khuzestan Province

Period	Sheep and lamb	Goats and kids	Cow and calf	Buffalo/young	Camel/young	Horse and colt
Summer	258,099	313,453	6,562	258	199	213
Winter	1,239,117	1,030,871	19,699	499	202	2,224
Period	Mule	Donkey				
Summer	3,469	8,082				
Winter	13,866	32,837				

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-2-5-2 Average Number of Animals in Previous Summer and Winter Period

Period	Average number of sheep and goat (head)	Number of head using pasture per day (1000 head/day)	Number of head grazing per day (1000 head/day)	Number of head grazing and using pasture (1000 head/day)
Summer	634,183	62,757	17,405	15,323
Winter	2,385,479	86,305	237,057	160,198

Data source: Socioeconomic Census of Nomadic Tribes, 1377 (1999)

Table H-5-3 Number of Hives and Honey Production by Township of Chaharmahal va Bakhtiari Province

Unit: kg

Township	Number of hives		Average honey production	Total number of hives	Total honey production
	New	Traditional			
Shahre Kord	307	16,646	6	16,953	116,061
Burojen	12	6,594	10	6,606	15,485
Farsan	534	3,611	7	4,145	28,125
Ardal	390	3,918	6	2,308	15,579
Lordegan	320	2,009	5	2,329	2,037
Total	1,563	32,778	8	35,392	269,156

Data source: Livestock organization of Provincial Jihad Organization. (1996)

Table 5.4 Inland Fishculture by Sub-basin

Sub-basin	Fish farms	Annual production(ton)	Remarks
K1	1	5	Fishculture center
K2	10	175	
K3	10	325	
K4	5	100	
K5	5	240	
K6	7	160	
K7	22	460	
K8	0	0	
Total	60	1,465	

Data source: Silat company of Provincial Jihad Organizations (1999)