Accounting for pastoralists in Iran





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RAN IS LARGELY arid or semi-arid, with some 84.8 million hectares of rangelands (52.3% of its land area). It is also mountainous, so temperatures and rainfall vary widely over short distances. Over millennia, this has led to the development of pastoral systems that use this environment to generate food and livelihoods.

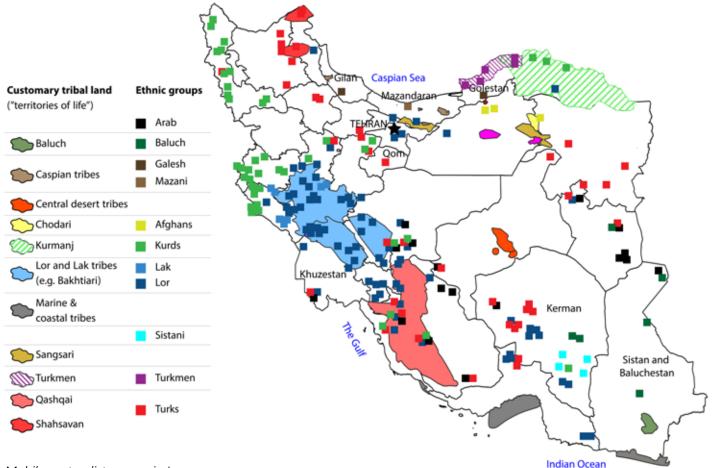
Iran has a total of 4–5 million pastoralists. Three types of pastoralism exist: mobile, semi-mobile, and sedentary. Some groups pursue all three approaches, and may switch from one to another.

■ Mobile or nomadic pastoralists migrate with their families and are fully mobile throughout the year. Their social structure consists of several tent-holds (*oba* or *maal*, the lowest level), who live, migrate and manage natural resources together. Above this are clans (*bonku, göbak, owlaad, hu:z* or *tash*), subtribes (*tira, tireh*), tribes (*tayfa, tayefeh*), and tribal confederacies (*el, i:l,* the highest level). According to the most recent official census in 2008 (the next is planned for 2026), Iran has 1.2 million mobile pastoralists, or 212,000 "tents", making up 1.7% of the country's population. They are organized into 104 tribal confederacies and 552 independent tribes in 30 of the country's 31 provinces.

Semi-mobile or transhumant pastoralists stay in villages in their wintering territory from late September to late March, and migrate with their tents for the rest of the year. They typically leave their families in one place (mostly in villages) and move with their herds in search of pasture (mostly to the uplands).

Key messages

- Rangelands cover 84.8 million hectares (52.3%) of Iran. Mobile pastoralists manage 35 million hectares and raise some 23 million head of livestock of 28 different breeds.
- Iran has 4–5 million pastoralists, 1.2 million of them mobile or semi-mobile. They play a vital role in Iran's food security and national economy. They produce 53% of the country's meat), and contribute to cultural diversity and environmental conservation within their territories.
- Mobile and transhumant pastoralists move their herds along migratory routes between summer and winter pastures.
- Their ability to do this has been eroded since the past century. Their "territories of life" (customary territories) and migration routes have been fragmented through land-use change and inappropriate development.
- Pastoralists need more supportive policies, including the recognition of their customary territories, their rights to use land, and their customary governance systems. They must be involved in making decisions that affect them.



Mobile pastoralist groups in Iran

Sedentary pastoralists stay in one place all year round, moving their animals from place to place to use the available vegetation.

According to the Statistical Centre of Iran, the country has 46.6 million sheep (29% of them kept by nomadic herders), 18.5 million goats (45% no-madic), 8.2 million cattle, 0.2 million water buffalo and 0.2 million camels. Most pastoralists keep sheep and goats, though cattle are common in the northwest, dromedary camels in the centre and east, and water buffalo in the plains around the Caspian Sea and in Khuzestan. Groups such as the

Definition of pastoralism

There is no official definition for pastoralism or pastoralists in Iran. However, one does exist for "nomads" (mobile or semi-mobile pastoralists). This uses three main criteria: a tribal social structure, a common land or territory, and awareness of being a member of a specific tribe. Other sources cite the social structure, a livelihood based on livestock and mobility between summer and winter territories. Some sedentary pastoralists with tribal ancestors are still classified as "nomadic". Talesh in Gilan province keep horses, and some groups in central Iran keep herds of donkeys. No population figures exist for these.

The number of livestock that depend on rangelands and forests is not determined. That leads to controversy. Figures range from 50 to 120 million livestock units (1 cow = 0.7 livestock unit) (both these figures are higher than the Statistical Centre's data in the previous paragraph). The higher estimates result in excessive livestock numbers and overgrazing being blamed for rangeland and forest degradation.



Historical background

Pastoralism has thousands of years of history in Iran. Goats and sheep were domesticated here around 10,000 years ago, and shortly afterwards the country was one of the first destinations for newly domesticated cattle. Bactrian camels were also domesticated here around 4,500 years ago.

Pastoralists have had a major role in Iran's social and cultural life. Nomadic tribes such as the Qashqai, Bakhtiari and Shahsavans have defended the country's borders for over a millennium. More recently, mobile education has helped many pastoralists' children become literate, but has alienated some from their tribal culture. Rangelands and other natural resources were traditionally owned and managed through the pastoralists' customary governance system. But the nationalization of forests and rangelands in 1963 severely weakened these customary institutions, replacing them with expensive and inefficient government bureaucracies. The law categorizes forests and rangelands as public resources, while *fiqh* jurisprudence and Article 45 of the Constitution state that they are owned by the government. However, mobile pastoralists retain customary rights over their ancestral rangelands and their customary tribal land, or "territories of life".

Seasonal migration and traditional ecological knowledge

Both the mobile herders and the transhumants may practise either "vertical" or "horizontal" migration. Vertical migration involves moving between winter pastures in the lowlands and nearby uplands for the summer. Horizontal mobility means moving between different lowland areas, for example between crop fields after the harvest and rangeland for the rest of the year.

The most common type of mobility is migration between winter and summer pastures. Herders often stay in each region for 6 months, moving their animals each day or month to seek grazing, water and medicinal plants. Other types of migration include *panje* in Maymand (Kerman province), with three migrations a year: in the early spring (April), midsummer in the fifth (Persian: *panj*) month in the Iranian calendar, and in December. In northern Iran, Turkmen herders used to move their reed-and-felt yurts many times a year, like other herders in Central Asia and Mongolia. But after sedentarization in 1985, most now move just twice a year.

The pastoralists adjust the timing and duration of their movements depending on the weather and pasture conditions. They are skilled at identifying the condition of the rangeland and how many animals it can support. They adjust the number of animals and duration of grazing accordingly. Unfortunately, since the last century, their territories and migration routes have become fragmented due to changes in land use, inappropriate development and climate change.

Socioeconomic contribution

Pastoralists' products include live animals, meat, milk, dairy products (butter, curd and cheese), wool, and handicrafts. Dairy products are very varied: Sangsari nomads produce at least 22 different products from milk. But a lack of accurate and comparable data makes it difficult to determine pastoralists' contribution to the economy.

Iran produced a total of 884,300 tonnes of meat and 11.2 million tonnes of milk in 2020, according to the Ministry of Agriculture. Some 53% of the country's meat output comes from extensive grazing, and mobile pastoralists alone produce 25% of



the red meat (190,000 tonnes a year), plus 6 million tonnes of various livestock, horticultural and dairy products (including 35,000 tonnes of milk). This gives them a major role in contributing to local and national food security. In addition, they produce 35% of the country's handicrafts.

Mobile pastoralists manage 35 million hectares, about 40% of Iran's total rangelands. In 2008, the Nomad Affairs Organization estimated they raised 22.8 million livestock units. They use marginal lands that are not suitable for cropping or other land uses. They also use crop residues and produce food and other products from resources that would otherwise go wasted.

While pastoralists are distributed throughout the country, their economy depends in large part on the local environmental conditions. For example, cheese production is important in the northwest among the Shahsavan tribal confederacy, but is less common elsewhere. Camel herding is concentrated in the plains of central and eastern Iran among groups such as the Kalkooyi in Qom and Baluch clans in Sistan and Baluchestan. Water buffalo are found in coastal areas such as Mazandaran, Golestan and Khuzestan among sedentary and transhumant pastoralists.

Ecological contribution

Pastoralists have a major role in preserving, and maintaining genetic diversity, and in conservation, sustainable use and restoration of rangelands. The ecological contributions of pastoralists include:

■ Harmony with the ecosystem. Pastoralism mimics the natural ecosystem, with livestock playing the role of primary consumers (like wild herbivores), and herders and their families that of secondary consumers (wild carnivores). Compared with other land uses, pastoralism has the least negative effect on flora and fauna habitats. Pastoralists move their herds to optimize their resource use. Unlike crop farming, pastoralism uses very few chemical pesticides and fertilizers and results in minimal soil compaction.

Sustainable long-term conservation and use of nature, in contrast to the exploitation and damage caused by industrial activities and mining.

Encouraging regrowth of plants. Where livestock numbers are in balance with the range-land capacity, grazing stimulates plant production. Grazing, manure and trampling speed the decomposition cycle and improve soil fertility.



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Spreading seeds. Livestock spread seeds, both in their dung and on their hides.

Reduced risk of wildfire. Grazing and browsing remove undergrowth, so reducing the risk of wildfires. Pastoralists control and extinguish fires that do occur.

• Control of invasive species. Grazing and controlled fires reduce the spread of invasive species of plants.

Improved biodiversity. Grazing maintains a balance between dominant and non-dominant plant species, maintaining biodiversity.

■ Livestock genetic resources. Pastoralists conserve local breeds of livestock that are suited to the local area. In Iran, these include 28 breeds of sheep, 20 of goats, six of cattle, and dozens of camel, donkey, mule and horse breeds.

Institution	Parameters	Area covered	Years covered	Accessibility
Natural Resources and Watershed Management Organization of Iran	Grazing license of pastoralists who are dependent on rangeland	National	Since 1971	Not available
Nomads Affairs Organization of Iran	Statistics data of nomads in provinces and cities	National	Since 1978	Partially available
Statistical Centre of Iran	Socioeconomic census of nomads	National	Every 10 years since 1987	Available
	General Census of Population and Housing	National	Every 5 & 10 years since 1956	Available
Ministry of Agriculture	Annual Agricultural Statistics	National	Since 2002	Available

Table 1Sources of data on pastoralism in Iran

Data sources

The government's Natural Resources and Watershed Management Organization is responsible for the conservation and management of natural lands. It assigns grazing certificates to pastoralists with customary rights, and tracks the numbers of pastoralists and livestock. However, the data from this organization is not up-to-date or publicly available. The population of nomads is monitored through the national census and the government's Nomads Affairs Organization. This reports the population, tribe name, gender, age, education level of the people, plus their number of livestock, types of livestock, etc., for all provinces, cities and villages.

How to improve the data situation?

In addition to figures on pastoralists and livestock, data are needed on the type of livestock-raising systems (mobile/sedentary, pure pastoralism, agropastoralism, agro-silvo-pastoralism, semi-industrial, industrial) and the degree of mobility and dependence on nature. The customary territories and migration routes should be mapped. Because many pastoralists are mobile, administrative borders are inappropriate for data collection. Information on their tribe and sub-tribe are needed, along with data on their products (live animals, meat, milk, dairy products, wool, handicrafts, etc.).

The availability of such data would make it possible to determine the role of pastoral systems in the national economy and for food security. It would also be a basis for determining pastoralists' access to social services, their role in conservation, and their rights to land. Data should be made available in both Persian and English to facilitate sharing.

Vision for the future

Pastoralists need more supportive policies to enhance and sustain their roles in food production, conservation and ecosystem restoration. Their "territories of life", governance systems and role as custodians of the rangelands must be recognized and empowered. They must be assured access to education, health and veterinary services, as well and to transport, energy and mar-

kets. Young people need training, and financial resources are required for entrepreneurship and innovation. Participatory research and action are needed to work out how pastoralists can adapt to climatic, economic and social change. For this to occur, accurate data using appropriate frameworks are required.

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