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Camels on rapid decline in Asia

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The Asian camel population decreased between 1994 and 2004 from 4.5 million to 3.5 million, or by 21%, according to the official statistics compiled by the Food and Agriculture Organization of the United Nations (FAO). These figures combine populations of the one-humped (dromedary) camel and the two-humped (Bactrian) camel. The dromedary as a denizen of hot deserts can be found in a broad swathe of arid land stretching from the Mediterranean to India's Thar Desert. The Bactrian camel is adapted to the cold deserts of Central Asia and is at home in China, Mongolia, and some of the former Soviet republics. The total number of the Bactrian camels is now less than 600,000.

The development in Asia contrasts with that in Africa, where the camel population grew from 13.2 to 15.4 million, or by 16 %, during the same time period.

With about 3.5 million camels left in Asia, the camel as a species is far from being on the verge of extinction. Yet there are two grave reasons for concern:

Replacement by unsustainable land use practices

In countries, such as India, the decline of the camel is mainly due to expansion of crop cultivation into arid lands. It is understandable that countries want to spread out their agricultural fields in order to satisfy the cereal needs of their burgeoning populations. But, as is becoming obvious from the reports about groundwater depletion in most Asian countries, this land-use strategy can often be practised only for a very short time-span – often only a couple of years - before groundwater supplies are exhausted forever. Camels, on the other hand, represent a prime resource for putting desert areas to long-term productive use. Their population decline implies the abandonment of an indigenous and ancient method of extracting energy and food from arid lands without exerting pressure on precious groundwater resources.

Loss of biodiversity

The shrinking of Asia's camel herds indicates a loss of important biodiversity and animal genetic resources. The continent's camel population is not genetically homogeneous, but rather composed of a multitude of breeds adapted to diverse cultural, ecological and economic contexts. These breeds evolved through a combination of human and natural selection. Some breeds are endowed with excellent milk potential; others have high growth rates and are suitable for meat production; yet others are swift and suitable for racing. As of now, we do not really have an inventory of existing camel breeds. FAO is currently in the process of compiling a report on the State of the World's Animal Genetic Resources (SOW-Report), based on reports that have been submitted by individual countries. From these country reports it is quite evident that reliable and useful data on camels are virtually absent.

As a Chinese report succinctly states “Due to the shortage of funds for such purposes, investigations were carried out only in developed and major economic zones. In border areas and in the ecologically rich but traffic and transport inconvenient remote areas, such investigations did not take place. Many local breeds remain as hearsay and need to be investigated.” The problems of conducting surveys in remote areas also raise doubts about the accuracy of the official population figures submitted to FAO.

Disregard of traditional knowledge

Especially in the remote areas where camels still survive, breed and population surveys are not possible without involving local livestock keepers and their traditional or indigenous knowledge (IK). While one of the stated aims of the SOW Report is to “protect traditional livestock practices of smallholders and nomads”, few, if any, countries have given attention to IK in the preparation of their reports, and some openly denigrate it. The report from Jordan provides conflicting numbers on its camel populations. On one page it reports the number as 5,000 head, on another it mentions 18,000 head. It mentions that camel owners categorize their animals according to several considerations, such as pedigree, colour, and ownership, but then goes on that there is no scientific basis to this, and that scientists believe there are two breeds, but that they have no information about the number of each one.

Status in selected countries

The wild camel in China and Mongolia

While most wild ancestors of domestic animals have already become extinct, there is still a residual population of wild Bactrian camels in Mongolia and China, amounting to less than 1000 head, and listed as critically endangered by IUCN. According to the Wild Camel Foundation, their population is steadily declining. The majority live in the Gashun Gobi (Lop Nur) Desert in the southeastern corner of the Mongolian Desert that served as a nuclear test site for 45 years. How these animals have coped with the high levels of radioactivity in the area without any obvious ill-effects has scientists puzzled. Equally astonishing is their ability to satisfy their fluid needs by drinking salt water slush (see www.wildcamels.com).

India

If we believe the official statistics, India has seen by far the most rapid decrease of the camel population during the last ten years, amounting to nearly 40%. Field surveys by Lokhit Pashu-Palak Sansthan (LPPS), a non-government organization (NGO) in India, however, revealed a 50% decline between 1995 and 2004 in selected parts of Rajasthan. Prime culprits for this development are irrigation agriculture and the establishment of nature reserves. The Indira Gandhi Canal, which runs parallel to the border with Pakistan, has eliminated prime camel-breeding areas, and in the villages that once had the reputation for producing India’s best camels, not a single animal is left. The privatization of former common property resources is forcing camel breeders to sell their herds for slaughter; field owners also resort to shooting and other cruel acts to keep camels away. Only ten years ago, the Raika and other traditionally camel breeding communities adamantly rejected the idea of using camels for meat. This ethic was grounded in Hindu values and was subscribed to by the local Muslims. But it seems to have eroded away almost entirely (see www.pastoralpeoples.org).

Despite massive awareness-raising campaigns by LPPS, appeals by a group of international camel scientists, and a plea by camel breeders themselves, the government appears paralysed in its inability to come up with a remedial action plan, or even acknowledge the issue. At the same time, groundwater levels have dropped and even completely disappeared, so in some locations camels may even make a comeback.

Due to the rapid loss of camels, it is also likely that breeds have become extinct without ever having been recorded. There was never a systematic breed survey. About 10 years ago, LPPS documented the Malvi camel, a breed with extremely high milk potential that had escaped the attention of scientists. Because the local dairy laws do not recognize camel milk, this breed is being crossed with meat-type animals and may by now also have virtually disappeared.

Pakistan

Pakistan's camels are also on the decline, down to 800 000 or less in 2004 from 1.1 million in 1994, equivalent to a decrease of about 29%.

Yet in Pakistan, the prospects for camels seem comparatively bright. This may be because there is a heightened demand for these animals in Afghanistan, where the livestock economy collapsed after the war, and the country remains dependent on animal imports. Cheelkand, a minor hamlet in Mirpurkhas district of Sindh Province, is the scene of a thriving weekly camel market from where camels are trucked to the border with Afghanistan and even Iran. In the Tharparkar Desert in the southeast of the country, camels still count for much and are regarded as a symbol of wealth. A good camel costs 40,000 Pakistan Rupees (about 554 Euro). In an interview with the Karachi-based NGO SCOPE, a member of the camel-breeding Rebari tribe boasted that he was making very good money indeed from his more than a hundred camels, and considered himself a rich man. Yet, he pointed out, that medicines against the most important camel disease, trypanosomiasis, were not available, subtracting from his profits.

A recent survey of camel animal genetic resources identified 27 different camel breeds in Pakistan.

Mongolia

In Mongolia, the camel population has decreased from 895,300 in the 1950s to 256,000 at the end of 2004 – a fall of over 70%. According to Ts. Boviisharay, Head of the Camel Preservation Society, an estimated 95,000 camels are slaughtered for food every year, and there is an urgent need to include the Mongolian camel in the list of the world's endangered species.

In Mongolia, the camel was traditionally used for a variety of purposes, including wool, milk, and transportation of yurts. During the communist period, camel breeding had been the domain of the state, but after the collapse of the system, camels were privatized. Poverty and lack of other meat sources have led to the massive slaughter of camels. There are various attempts to reverse the trend, and there is also considerable tourism potential for camels.

China

China officially has 265,000 camels in 2004, down from 373,000 in 1994, or nearly one-third. It is difficult to find out more about the situation of camels in China, although its country report mentions some four camel breeds. In the country report, population figures are given for three of them, but two of the figures were established in 1980 and 1981!

Oman

In Oman, camel numbers have increased significantly, up to 125,000 in 2004, compared with 94,200 in 1994, a rise of 33%. (It is however not clear what these figures are based on, since sources in the country report that the last livestock survey was conducted in 1994.) While the Diwan supports camel racing and has established a remarkable, high-tech centre for camel reproduction, there also exists an official policy of decimating the camel population of the Salalah region in the south of the country. Camel numbers are supposed to be cut by at least 75%, and the government provides incentives for camel breeders to bring their animals to slaughter.

The camels that are targeted for almost complete extinction are quite different from the ones used for racing, and in fact have been selected for milk productivity for many generations by the Jabali

Bedouin. Slaughtering these camels off at random will lead to the loss of a valuable genetic resource for food production under arid conditions.

Ecological value and economic potential

Ecological value

Camels are suited better than any other type of livestock for making productive use of desert areas. Their grazing behaviour is ideally adapted to scarce vegetation and they walk long distances between bites. Although if confined, they will also damage vegetation, they do not destroy their habitat. An added advantage is their soft padded feet, which minimize erosion. Because camels can go for many days without drinking, they can graze over areas very far from water resources, so can use very remote pastures.

Camels' food intake in relationship to their body weight is low. They require only about 5–10 kg of dry matter to perform a day's work of carrying 120 kg over 30 km.

Camels need about six to eight times as much salt as other animals, so need to regularly graze on halophytic plants to remain healthy. In view of the extensive soil salinization caused by the irrigation projects, camels may be a means of alleviating the catastrophic ecological side-effects of such interventions.

Even under conditions of extreme drought camels continue to produce milk. Because camels can minimize water expenditure for cooling and excretion, they yield milk with high water content even if they are dehydrated. Their lactation period of 9–18 months enables pastoralists to subsist on their milk practically all year round. According to some calculations, camels need only 1.9 kg of dry matter to produce a litre of milk, compared with 9.1 kg for cows.

Economic potential

Some decline of the camel in Asia can be attributed to the loss of its transport function, and may therefore be inevitable. But the camel also fulfils many other human needs and there is plenty of potential for value-addition to its products. The added value of camel producers in combating desertification was the subject of an international conference held in Turkmenistan in 2004. Eminent camel scientists such as Bernard Faye of CIRAD in Montpellier (France) say the camel has unfathomed potential for satisfying human's future dietary and medical needs.

Camel meat is popular in parts of Iran, and is sought-after in Mongolia. The camel is also becoming increasingly popular as a sacrificial animal for Muslims in South Asia. Camel milk in various processed forms is an esteemed dietary item in Central Asian countries. For instance, Mongolian herders process it into several types of cheese or distil it into vodka. In Central Asian countries such as Kazakhstan, camel milk is administered as therapy for a range of diseases, including tuberculosis and dropsy. The wool of the Bactrian camel is valued highly. And then there is the usefulness of the camel in agriculture, to pull ploughs, to power oil mills, or to draw water. This may still be of interest for countries and people who can not afford to keep up with the rising oil prices.

Camel milk is high in vitamin C and can be used to treat several diseases. It can be made into a large number of delicious and healthy products: cheese, ice-cream and even chocolate and vodka.

Camel character

In the West, camels have frequently been the victim of character assassination. They are often depicted as stubborn, stupid, and spitting. Traditional camel breeding cultures know better and hold them in the highest esteem. Among the people of Rajasthan and the Tuareg of the Sahara, the camel symbolizes love. The Afar in Ethiopia may value their camels more highly than their sons, and the Arabs believe that only the camels know the one-hundredth name of God.

Camels indeed form long-lasting relationships and friendships among each other, when allowed to range freely. If treated in a friendly way, they develop affection for their owner as well, and respond to their names.

The camel is mankind's best friend in the desert. An all-out effort is required to save this animal.

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More information

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Websites with further information

www.camelides.cirad.fr

www.pastoralpeoples.org

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