AN ECONOMY IN TRANSITION

Managing high pastures in the Eastern Pamirs

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The Eastern Pamirs, with less than 100 mm of annual rainfall and altitudes above 3000 m, are predestined for livestock raising. Traditionally, the area has been inhabited by semi-nomadic people of Kyrgyz origin who migrated seasonally with their yak and sheep herds to areas at various altitudes. The first permanent settlements were established only in the 1930s, under Soviet influence. In 1894, the year of the first census, 1055 people lived in Murgab District. At the same time, on an area of almost 40,000 km², corresponding to the size of Switzerland, 20,580 sheep, 1703 yaks, 280 horses, and 383 camels were counted (Hedin 1899, quoted in Hangartner 2002). The introduction of intensified pasture management by the Soviets led to decades of tremendous growth. A decline in the livestock population began at the end of the 1970s and gained great momentum after the economic and political transformation that began in 1990. Since the first census there has been steady growth in the number of people in the Eastern Pamirs, which slowed only after the independence of Tajikistan. Today Murgab District is inhabited by 16,000 people.

Pasture management under change

During the Soviet period, large herds of animals were kept on remote pastures with good quality fodder. Livestock breeding was well organised, with mobile herding camps and irrigated winter pastures around permanent settlements, fertilised and irrigated plots producing fodder barley, imported fodder, well-established veterinary services, and scientifically based breeding strategies. Animals were then transported to other areas of the Soviet Union, and the Pamirs received financing, consumer goods, fuel and coal, and social and economic services in return. The disintegration of the Soviet Union and the collapse of the planned economy also had far-reaching consequences for the livestock sector in the GBAO. State farms were dissolved and the assets distributed to former employees. Supplies of necessary goods, maintenance of infrastructure, and provision of economic and social services also came to a halt. Former employees suddenly lost their income and became independent farmers who, in the absence of markets, had to revert to a subsistence mode of production based mainly on animal and dairy production. Today, many inhabitants of the Eastern Pamirs depend on humanitarian assistance, as employment opportunities in the secondary and tertiary sectors are not available and income from livestock production is far below household needs.

Herding patterns

Herding patterns vary considerably among households, depending on stocking rates and the socio-economic status of households. Nevertheless, certain general features can be described: herding in the Pamirs is a combination of vertical transhumance and semi-nomadism. Generally speaking, different pasture areas exist, depending on the season: summer pastures at altitudes between 3500 and 4700 m are used between July and September up to November, winter pastures near settlement areas in the valleys between December and May. Some herders use spring and/or autumn pastures in between. Hay fields located in the vicinity of rivers are of great importance for the provision of winter fodder. High mobility is important with regard to conservation of vegetation, but also as a means of adapting to changing climatic conditions.

Since the privatisation of livestock, herding patterns have changed considerably. Various summer pastures that are difficult to access due to remoteness or deteriorated infrastructure are no longer used. Herders mention that some of the best summer pastures, accessible with heavy lorries during the Soviet period, are no longer used now because fuel prices are simply too high.

Access is a limiting factor not only in pasture use but also in terms of market integration for the Pamirs as a whole. This has serious negative consequences for the livelihoods of herders. The main markets, either within the country or in neighbouring Kyrgyzstan, are difficult to reach. Exporting livestock and livestock products is difficult, as is provision of consumer or investment goods. As a result, the price ratio of locally produced to imported goods forces herders to retreat to a subsistence mode of production. A comparison of the number of people who depend on livestock production with the potential carrying capacity of the area indicates that the current population of 16,000 is clearly higher than the number of people who can fully depend on sustainable livestock production, which is estimated at between 3000 and 5000. Consequently, few herding households in the area are able to produce a surplus; many more have to sell animals to survive.
Deteriorating resources

The concentration of people and livestock on pastures near settlement areas, in combination with the collapse of the supply and transport system, triggered degradation of vegetation. Pastures near settlement areas are overgrazed because herders cannot afford to move to distant pasture areas. On underused pastures, on the other hand, productivity may also decline because biomass production is reduced by old plants. As the supply of fuel and coal has decreased and prices have risen sharply, people increasingly use local shrubs such as teresken for heating and cooking. However, this small, slow-growing shrub is also an important fodder plant that protects slopes from erosion. Livestock have become more vulnerable, particularly during harsh winters, as a result of degrading land resources and the cessation of winter fodder imports.

The search for solutions

Strategies to promote sustainable development need to focus on increased productivity through livestock breeding, a culturally and ecologically well-adapted strategy for the Pamirs. New forms of livestock production based on units larger than households have been proposed as a strategy to make better use of remote pastures. Activities along these lines were initiated following the establishment of Farmers’ Associations. The main tasks of these associations are related to land use regulations such as distribution of pastures and hay plots to households. They also represent their members’ interests to the local administration and develop marketing and processing strategies. And the Farmers’ Associations have played an important role in strengthening the limited knowledge of former sovchoze workers who turned to herding.

There is a particular need for the introduction of breeding strategies and training courses in sustainable pasture management. The associations could also be coordinating bodies for pooling household resources or facilitating access to markets. Even if the above measures are taken and result in a sound increase in production, subsistence-oriented livestock breeding alone cannot support all the households currently engaged in this sector. Additional sources of income in the secondary and tertiary sectors are needed to decrease dependency on income from the livestock sector and on food aid. Small production units linked to the livestock sector could represent an opportunity for creating added value in the Eastern Pamirs.

Development of human and cattle populations in the Murgab District
(Source: Hedin 1896, and local archives in Murgab, quoted in: Hangartner 2002)

This article is based on studies by Judith Hangartner and Michael Domeisen (both 2002).

Milking of yaks in the early morning in Ak Kalama, in Chechtebe in the South-Eastern Pamirs. At altitudes of 3500 m and above with very limited rainfall, little vegetation can develop. It is particularly challenging to produce enough winter fodder for large herds. (Photo: P. Sieber)