

# Chapter 14

## **Annapurna Conservation Area Project: Approaches to and Implications for Livestock Planning in Resource-scarce Environments**

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The King Mahendra Trust for Nature Conservation is Nepal's largest NGO working in conservation and community development. Formed in 1982, the Trust has five ongoing projects including the Annapurna Conservation Area Project. The Trust's main focus lies in addressing multifaceted issues in conservation and development through an integrated approach by mobilising local communities.

Rural communities of the mountainous Annapurna Conservation Area have a biomass-based, subsistence economy that is transforming into a market economy. Major economic activities include agriculture and animal husbandry, seasonal and medium-term migrant traders and labourers, and tourism. Agro-pastoralism, a major activity in the northern belt, is becoming less dominant every year.

Communities living in the Annapurna Conservation Area have strong links with their surrounding environment. Water is the main constraint; settlements and agricultural land are found mainly in valleys with a perennial water source. The natural resource base includes agricultural land, tree plantations, and grazing lands. Water is an important resource; agriculture, micro-hydro plants, and traditional water mills are developed around perennial water sources. Population growth, coupled with an influx of tourists and others from the tourism industry, has accelerated the rate of depletion of the natural resource base in the area.

Upper Mustang is presented in this paper with an objective of better understanding the conditions of livestock systems in a resource-poor environment of the Annapurna Conservation Area.

### **Annapurna Conservation Area Project's approach to conservation for development**

Since its inception as the Integrated Conservation and Development Project, the Annapurna Conservation Area Project's (ACAP) philosophy has been guided by a bottom-up approach that empowers stakeholders in a conservation for development programme. This philosophy is based on ACAP's view that people are recognised not only as partners in conservation but, more importantly, as managers of natural resources. The project's ultimate goal of handing over the conservation area to locals for its management is enhanced by promoting a participatory institution.

ACAP's people-first approach is guided by three principles.

- **People's participation:** At the grassroots level, various institutions are formed for the active participation of local people in planning, decision-making, and implementing phases of the programmes.
- **Catalyst or match-maker:** ACAP facilitates the process of balancing the needs of locals and tourists with natural resource conservation. It brings together international and multi-lateral donors, technicians and technology, and researchers to undertake projects that serve the local community and conserve biodiversity and natural resources.
- **Sustainability:** Economic sustainability, environmental sustainability and institutional sustainability are three important elements for ACAP's long-term goal of handing over project management to local people.

## **ACAP objectives**

The Conservation Area Regulation, enacted in 1996, enables ACAP to conserve natural resources for sustainable development through the active participation of local communities. The project objectives are as follows.

- To conserve the natural resources of the Annapurna Conservation Area for the benefit of present and future generations
- To bring sustainable social, institutional and economic development to local people
- To develop tourism in such a way that it will have a minimum negative environmental impact

## **ACAP programmes**

ACAP's holistic approach to conservation for sustainable development has yielded a diverse range of programmes catering to the needs of local communities. ACAP core programmes are categorised into the following sectors.

- Natural Resource Conservation Programme
- Agriculture and Livestock Development Programme
- Alternative Energy Programme
- Conservation Education and Extension Programme
- Sustainable Tourism Management Programme
- Community Development Programme
- Women in Conservation and Development Programme
- Heritage Conservation Programme
- Reproductive and General Health Programme

There are numerous activities supporting each programme. The programmes are executed through seven Unit Conservation Offices located in the Annapurna Conservation Area.

## **Grassroots-level institution-building**

For efficient management of programmes at the grassroots level, local institutions, known as Conservation Area Management Committees, are formed at the village

development committee level. Village-nominated members constitute the Conservation Area Management Committee; they are responsible for anchoring the ACAP-supported programmes. As the programmes are diverse, the Conservation Area Management Committee has sub-committees including a Mothers' Group, Community Lodge Management Committee, Kerosene Depot Management Committee, Electrification Management Committee, Health Post Management Committee, Gompa Management Committee, and Savings and Credit Group. However, management of natural resources across the fragile ecosystem of the Annapurna Conservation Area requires more than local institutional participation; it needs enlightened institutional engagement and leadership as well. This is where ACAP provides support and leadership to the grassroots institutions it has helped to establish.

## **Livestock-rearing in Upper Mustang**

The rangeland of Upper Mustang is important for communities rearing livestock in agro-pastoral production systems. Rangeland is rich in biodiversity and is a source of energy for livestock enterprises, although it is unsuitable for agricultural production.

## **Livestock as a coping strategy**

Livestock enterprises in Upper Mustang are mainly based on a free-range grazing system. They are the backbone of existence, and have shaped livelihoods and traditional cultures. Livestock species include native yak and hybrid yak (chauri and dzopa), cattle (lulu), sheep, goats, horses, mules, and donkeys. For communities living at high altitude with harsh conditions unfavourable for agriculture (low and erratic rainfall, cold temperatures, rough topography, and poor soil structure), livestock enterprises have provided a coping strategy for sustenance. Livestock provides the following.

- Dairy products for daily needs
- Nutrition through protein and fats
- Supplementary food during the lean winter months
- Fibre and leather requirements for household purposes
- Cash income
- Reserve capital for risk aversion strategies, especially since the limited agriculture season is risk-prone and dependent on the vagaries of nature
- Dung for fuel needs; in the case of Dhokpa nomads, it forms the main source of energy
- Dung for fertiliser
- Transportation for goods and people in the rough terrain; and for tourism
- Draught power
- Efficient use of resources from marginal lands that may otherwise not be utilised
- Wealth and status within the community

## **Declining livestock population**

Despite the critical role played by livestock in sustaining communities, the population has decreased rapidly within the last two to three decades.

The rangelands of the Tibetan plateau are considered more productive than the rangelands of Upper Mustang. Closure of the rangelands on the Tibetan plateau three decades ago after the Khampa War led to increased pressure and overgrazing of the rangelands of Upper Mustang (Banskota and Sharma 1998; Raut and Richard 2000). Overgrazing caused severe degradation and ultimately limited the stocking rate. This was considered to be the main cause leading to the declining population of livestock in Upper Mustang.

However, degradation of rangelands may not be the most important factor responsible for the decline in livestock population. There are other factors contributing to the declining livestock population.

Migration was a coping strategy in the subsistence economy, where family members left behind could feed themselves adequately as a consequence of the reduction in family size. Others migrated with equestrian animal herds to lower lands during the winter.

Now Upper Mustang's economy has become more integrated into the national economy, it is better linked to labour markets in the rest of Nepal and beyond. Migration from mountainous regions has constantly increased; this trend is evident in Upper Mustang. In the market economy, migration can pay better wages and open opportunities; it has transformed a coping strategy into an economic one.

In the subsistence economy of the past, seasonal migration consisted of travelling in caravans to the Terai region of Nepal and parts of the Indian subcontinent mainly as a coping strategy during the food-deficit months. Trade was done using caravans as a transportation medium, while livestock were also traded en route. However, seasonal migration has now become more diverse in terms of income-generating opportunities. Employment prospects in urban centres, the Terai region and India have created a demand for labour. Seasonal labour demands mobility of migrants between labour markets; caravans are replaced with modern-day transportation systems, and demand for livestock trade is negligible. Seasonal migrants are employed as labourers in mining and construction firms, and in small businesses and households. Many migrants have extended relations with other permanent migrants and use the network to obtain seasonal employment. Woollen wear manufacturers in India increasingly use migrants from Mustang and Tibet during the winter to sell woollen wear products, marketed as Tibetan wool, throughout India.

Uncultivated terraced lands, frequently seen in the area, are not a result of land degradation, scarcity of manure, or desertification, but more importantly, with the arrival of remittances in hard currency, people have substituted labour-intensive occupations with capital-intensive occupations. It is common to find agricultural land being converted into private tree plantations that yield better economic returns in the long run.

Remittances jump-start the local economy by increasing the spending capacity of recipient families. This creates new opportunities for those that remain. Many that migrate are risk takers with entrepreneurial skills within the economically active age group; those that do not migrate are people that prefer risk aversion strategies, have fewer skills, or are unable to work, or are from the economically inactive age group. Livestock are tended by those who do not migrate.