



▲ Community meeting on the Tibetan Plateau in winter. Credit: FFI

Empowering Tibetan herders: sustainable rangeland management on the roof of the world

This case study is one of a series developed by Fauna & Flora International (FFI) during the course of an Anglo American funded partnership designed to explore ways to integrate livelihoods and governance issues into conservation initiatives.

The studies profile FFI's and partners' experience and the lessons learnt at three project sites.

All studies are available on www.fauna-flora.org, alongside a summary lessons learnt document.

The Tibetan Plateau is recognised as an internationally important habitat for a range of animals and plants, many of which are endemic and globally threatened.

It is the source of the headwaters of the Yangtze, Mekong and Yellow rivers, on which the livelihoods of many millions of people depend. It is also home to over 6 million Tibetans, of whom approximately 2.5 million are herders whose livestock have grazed the grasslands for thousands of years.

In recent years a variety of pressures have resulted in grassland degradation and the quality of the grazing available to the Tibetan herders has decreased, resulting in reduced animal health, food production and lower income from grassland products. The herders are now some of the poorest households in China. Believing that herders are responsible for over-grazing, wildlife decline and degradation of plateau ecosystems, Chinese experts are calling for 'ecological migrations' of herder families to towns to reduce environmental degradation, alleviate poverty and improve health and education.

Our project works with Tibetan communities in Qinghai Province (Yushu and Guoluo Prefectures) and Sichuan Province (Ganzi Prefecture). The issues the project seeks to address at these sites include:

- Degradation of grassland affecting both biodiversity and livelihoods
- Chinese government policies which restrict traditional grassland management regimes
- Low levels of awareness of government policies, rights and responsibilities.
- Marginalisation of Tibetan herders from government decision-making processes
- Lack of information on the importance of biodiversity conservation
- Herders' reliance on middlemen for access to regional and national markets for both inputs and consumables, and for sale of produce.

Integrating conservation, livelihoods and governance

We have taken a multi-stranded approach to addressing this complex range of issues. A particular focus has been helping develop the capacity of marginalised groups of Tibetan herders to manage their rangelands sustainably in support of both livelihoods and biodiversity. A key strategy has been to facilitate the development of community associations in Rari, Marong, Puxian and Maozhuang communities. Training and mentoring support has been provided in a number of aspects of organisational development. This has included group management skills, problem identification and analysis, action planning, and mobilisation and management of financial resources. Strengthening of these community associations also seeks to improve governance through increasing the opportunities for community members to take part in decision-making at village level, and to engage with local government.

To explore the concerns and aspirations of community members, the team have used a variety of Participatory Rural Appraisal (PRA) methods including SWOT, stakeholder mapping and problem tree analysis, seasonal calendars, household and key informant interviews, focus group discussions and wider community meetings. This process has enabled the community based groups to develop sustainable rangeland management plans, as well as broader community development action plans in support of sustainable livelihoods.

As a result of this participatory process, the harvesting of a wild fungus popular in Chinese medicine was identified as the major source of cash income for many households



▲ Buddhist monk providing environmental education. Credit: FFI

either through collecting themselves or through selling harvesting licences. However, the harvesting process can be very destructive to the grasslands. The project therefore provided information on the licences on how to sustainably harvest the fungus in order to educate seasonal collectors, particularly those who come from outside the area who tend to be less aware of the environmental impact of their activities.

The need to address livelihoods issues was identified by all community groups. Most households were found to be largely dependent on their livestock (mostly yak but also some sheep and ponies) for subsistence and occasionally small amounts of cash income from local trading of produce. Livestock are also important in terms of Tibetan herders' cultural identity. Sustainable rangeland management requires the limiting of stocking densities, so households needed both to improve the survival rates of current stock and diversify their livelihoods strategies, particularly to secure cash income. A number of livelihoods related activities were identified by the communities and supported by the project team through facilitating access to technical advice and start-up capital. These included cultivation of a local species of plant, the leaves and roots of which provide a local source of winter fodder for livestock. Training was also provided in traditional handicrafts production, as well as Tibetan building construction and religious stone-carving skills. A study tour was undertaken to Chengdu (a regional market centre) to



▲ A herder family using a guide to the flora of the Tibetan Plateau. Credit: FFI

enable herders to learn more about the handicrafts value chain and assess the viability of entering that market.

In addition, a range of seminars, workshops and other educational activities were undertaken with a total of over 4,500 local community members and students to increase awareness of the wider community of environmental management issues, with a focus on rangeland and wetland management. In many cases, these environmental education activities were carried out in collaboration with Buddhist monks who are widely respected and are able to align environmental messages with traditional cultural and spiritual values.

Also in keeping with Buddhist values, ecological control measures have been used to address degradation caused by grassland vermin, locally known as pika. In contrast to the poisoning programmes advocated by the Chinese government, which have had a negative effect on the natural predators of pika, these measures seek to increase the population of birds of prey through providing perching and nesting poles across a 40ha pilot site.

Five wildlife conservation groups, comprising members of local communities, have been established to undertake regular patrolling to help monitor wildlife populations and to deter illegal hunting.

In all activities, the project team have made efforts to involve local government and the media to increase the impact of the work.

Outcomes for biodiversity and livelihoods

The outcomes so far achieved under this project can be grouped into three complementary categories. Firstly, herder households have improved capacity to work together to develop and implement rangeland management and community development action plans, and to engage with local government and non-governmental organisations. This is evidenced by the establishment and official registration of 4 rangeland management community associations. As a result of project and financial management training and support, these local associations are now able to design and implement projects to address locally identified community development issues. Some have been successful in securing funding or other resources from local government, and in developing collaborative activities with local NGOs. The groups have developed and started to implement action plans to address rangeland and livelihood issues, including grassland degradation, pika damage, livestock management and the need to diversify livelihoods strategies. The ability of local herders to consider and analyse both rangeland and livelihood problems in their communities has also improved as a result of the practical opportunities the project has provided for them to participate in the whole project cycle from analysis, through planning and securing funds, to implementation and evaluation.



▲ Moving camp from winter to summer pastures. Credit: FFI



▲ Buddhist monks attending a workshop. Credit: Mark Infield/FFI

Secondly, the livelihood security of some herder households has improved as a result of diversification of livelihoods strategies. For example, as a result of establishing a 3.3ha experimental plot for winter forage, 357 households in the three communities of Maozhuang each received 50kg of winter forage root, with a total economic return equivalent to \$850. In addition, construction of a training centre in Rari village provides a long-term venue for training and education activities for local communities. As a result of skills gained through training in handicraft production (304 participants) and traditional stone-carving and construction (680 participants), more than \$6,000 equivalent has been generated.

Finally, awareness and action to conserve biodiversity has increased among some local communities, building on local cultural values and indigenous knowledge. More than 4,500 people have directly participated in environmental education and awareness raising activities, with many more being reached through local media. Five wildlife conservation groups have been formed to mitigate illegal poaching and maintain regular patrolling in areas where there are many important habitats. In addition, two large wetland areas in Maga and Marong have been identified as priorities for conservation. Action plans, based on traditional management practices, have been drawn up by local communities and submitted to relevant government departments for approval.

Climate change foresight planning

FFI commissioned a desk-top study to outline the potential impacts that climate change might have on the Tibetan Plateau. Building on this initial report, FFI's draft climate foresight planning tool was trialled, incorporating the latest scientific predictions with the perceptions of local herders on impacts of climate change on livestock health, grassland and other environmental conditions. Most of the herders interviewed stated that they had experienced temperatures increasing every year in the last two decades. This has resulted in some visible changes in some areas, for instance changes in glacial melt have been observed. Community members state that the glaciers used to melt only in the summer but, in recent years, some melting has been observed in the warmer winters. One 60 year old herder stated that "in old days" rain and snowfall occurred regularly at certain times of the year so herders could predict the timing and therefore be prepared for, and adapt to, the impact of these weather events. But in recent years the timing and intensity of rain and snowfall has become unpredictable.

These observations are in keeping with the latest IPCC models that predict that, as a result of increased temperatures, duration of seasonal snow cover in alpine areas is expected to shorten and snow cover to thaw out in advance of the spring season, resulting in severe spring droughts. Experience elsewhere on the Tibetan Plateau suggests that the most appropriate approach to climate change adaptation would be to build on the traditional adaptive capacities of these communities who have been pursuing their pastoral livelihoods in an extreme and unpredictable climate for generations.

Lessons learnt

Project staff concluded that building local capacity is the most appropriate approach to sustainable rangeland and livelihood development. They have found the strengthening of community organisations to be a useful approach to capacity building of local communities on the Tibetan Plateau.

Early on in the project, FFI staff and partners, including representatives of government agencies, received training on PRA to help ensure that the process of working with communities is empowering and based on the knowledge and aspirations of the Tibetans themselves. All choices of livelihoods diversification activities, and decisions over rangeland management, have been made by the community members themselves. However, facilitating links between communities and with other stakeholders has been important in ensuring that such choices are viable. For example, engaging with other actors in the handicraft value chain and a simple cost-benefit analysis identified that the barriers to entry to the regional handicraft market were too high. As a result, although the ability to produce useful items such as traditional saddlebags for local use was appreciated by community members, the revitalisation of traditional building construction and religious stone-carving skills was found to be more financially rewarding while still being of cultural importance.

Employing local Tibetan staff with their cultural knowledge and language skills has been crucial to securing the

confidence and trust of local communities. On the other hand, cultural, language, and political barriers have precluded the use of long-term external management and technical support to the project. However, short-term inputs from national (Chinese) experts have been possible and in many cases proved invaluable.

Involving relevant local government officials in project activities whenever appropriate has proved a successful strategy in engaging government support. For example, with project support, herders associations have been able to gain formal recognition and registration. This has enabled them to access additional government support, including initial subsidies to cover set-up costs such as fencing and other inputs for the winter forage programme. In some cases, pilot activities carried out through the project have subsequently been replicated by local government with other communities.

FFI has supported local NGO partners to involve community members directly in grassland and biodiversity monitoring surveys and wildlife patrols. Initial feedback from this process suggests that, as a result of direct participation in this aspect of the programme, community members are showing more interest in, and understanding of, the links between biodiversity, natural resource management and sustainable livelihoods. This has been important given the reflections of the project team that it has not always been easy to illustrate the connections between supporting livelihoods and achieving positive conservation outcomes.



▲ Revitalising traditional stone-carving skills on the Tibetan Plateau. Credit: FFI



▲ Young Buddhist monk. Credit: FFI



▲ Tibetan woman wearing turquoise and amber jewellery. Credit: FFI



▲ Yaks grazing on the Tibetan Plateau. Credit: FFI



▲ Traditional Tibetan architecture and prayer flags. Credit: FFI



▲ Wildlife monitoring on horse-back. Credit: FFI

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About Fauna & Flora International

Fauna & Flora International (FFI) is a biodiversity conservation organisation working in more than 40 countries around the globe, mostly in the developing world. Our vision is a sustainable future for the planet, where biodiversity is effectively conserved by the people who live closest to it, supported by the global community. Founded in 1903, FFI is the world's longest established international conservation body and a registered charity.



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