

## Introduction

Rangelands (including grasslands, savannahs and tundra) form the world's largest terrestrial ecosystem, covering an estimated 40% of the earth's surface. They are extremely important for the ecosystem services they provide and the livelihoods they support and yet they are particularly susceptible to land degradation. Degradation in the rangelands is often attributed to overgrazing and mismanagement of resources by pastoralists, but overgrazing is poorly understood and therefore the solutions that are adopted frequently aggravate degradation and increase poverty. Localised overgrazing is found in many rangelands, but it usually arises as an outcome of constraints to pastoralism, through restrictions of mobility and privatisation of land, and through substitution of pastoralism with less sustainable forms of livestock keeping.

Pastoralism has been well demonstrated to be among the most viable forms of production and land-use in the rangelands, but this viability is undermined by legal, economic, social and political disincentives. Many Governments tend to think of pastoralism as intrinsically harmful to the environment as well as being economically irrational, and they continue to pursue policies of sedenterisation and transformation, which is often erroneously associated with intensification and modernisation. This is likely to achieve the opposite of the intended outcomes by increasing desertification and weakening the economy of those countries.

Degradation of the rangelands has dire consequences, not only for the future of pastoralism, but for many millions of non-pastoralists who depend on dryland ecosystem services for their own wellbeing. Dryland ecosystems provide food, fbre, forage, fuelwood and freshwater, and they regulate water quality, pollination, seed disbursal, and climate. They provide cultural services such as recreation, tourism, cultural identity, landscapes and indigenous knowledge, as well as supporting services such as soil development, primary production and nutrient cycling.

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Securing positive environmental outcomes in the drylands is not achieved exclusively through conservation policies: conservation policies that lead to alienation of pastoralist land and restrictions

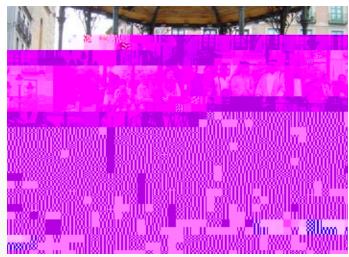
The Bofedales are managed wetlands in the Andean high plains which form oases supporting up to 70 per cent of the plant species consumed by camelid herds. For millennia the fow of water into the Bofedales has been regulated by pastoralists using dykes and dams, which prolonged their seasonal productivity and may have been the key factor enabling domestication of camelids. However, the institutional arrangements that have underpinned the maintenance of these wetlands has weakened in recent years, leading to the siltation and drying up of the Bofedales and wide spread environmental degradation in the surrounding areas. Recent government policy has increasingly recognised the rights and the cultural identity of indigenous peoples, which is strengthening the community-level arrangements for management of the Bofedales and leading to improved environmental management.

# Policy support for mobility

Managed livestock mobility, often referred to as transhumance, is one of the central management tools of pastoralism. Mobility enables producers to efficiently harvest rangeland resources that are 'patchy', meaning that they are spatially and temporally heterogenous. Livestock mobility is a key factor in protecting rangeland ecosystem

## Policies for economic growth

Policies which support economic development of pastoralism can also have a positive impact on the environment as long as economic development is compatible with the core features of pastoralism that generate the environmental services: respecting mobility and communal tenure, allowing effective decision making, and enabling pastoralists to capture some of the benefts of their actions. Pastoralist development policies should not only focus on the livestock enterprise, but should also support complementary livelihoods such as eco-tourism, development of trademark products for niche markets, and in many cases they should also support alternative livelihoods to enable some pastoralists to leave the system.



The Segovia declaration pursuing a pro-pastoralist agenda (La Granja, Spain)

### Recommendations

Environmental degradation cannot be tackled through environmental policy alone and attention is needed to a wide range of policies that infuence pastoralist livelihoods. Furthermore, securing change in a policy is seldom enough to achieve the desired outcome and attention has to be given to the implementation of that policy, the implementation of other policies that are contradictory, and gaps in associated policies that impinge on pastoralism. Rather than seeking single policy solutions to what is a multi-sectoral challenge, governments and other agencies are encouraged to adopt an over-arching policy objective of promoting pastoralism, or to pursue a pro-pastoralist political agenda.

The process of developing local governance should be based on inclusive consultations to ensure ownership by all parties, and the roles of government in relation to the roles of customary institutions needs to be clearly defined. Sanctioning of local governance should accommodate change rather than stife it, and should be prepared to

encourage change as appropriate, for example in the empowerment of women. Customary institutions should be supported and encouraged to represent all members of society (women, youths, elderly, lower castes). Historic relations between different pastoralist groups and between pastoralists and non-pastoralists, particularly in areas of shared resource use, need to be factored into relationships between government and customary institutions.

Policy makers and development planners need to understand pastoral lands as agroecosystems, and understand that "system integrity" is important for the continued provision of ecosystem services. In other words, pastoral lands need to be protected against the loss of key resources, and where such loss has already occurred governments should look for ways to restore resources to pastoralist management, or at least to restore resource use. In some cases this requires acceptance of 10(t)10()-27(la)10(c)10(c)6hnira