Opportunities and barriers to pastoralism for global food production and environmental stewardship

There is increasingly robust scientific evidence to show that pastoralism — extensive livestock production in the rangelands — is one of the most sustainable food systems on the planet. Pastoralism is practiced by between 200 and 500 million people worldwide, encompassing nomadic communities, transhumant herders, agro-pastoralists and ranchers, many of whom are facing similar challenges in both developed and developing countries.

Three overlooked facts

- **Mobility** of livestock (and wildlife) is essential for the health of dryland ecosystems: for carbon sequestration, watershed protection, and biodiversity conservation. Under-grazing is often as much of a problem as over grazing. Evidence shows that some form of mobility is essential for both pastoral economies and for sustainable rangelands management.

- **Sustainable pastoral systems** are more efficient, productive, and resilient than sedentary, agricultural systems in the rangelands, when all factors and environmental benefits are counted, and they provide healthier products for human consumption.
Pastoralism accounts for 25% of the world’s land area, and provides the majority of organic meat and milk, much of which remains beyond the reach of existing local and regional markets.

- **Pastoralism is a universal issue**: it is a logical adaptation for the management of heterogenous, often relatively low-grade resources on a large scale. Although pastoralists in developed and developing countries face different challenges in terms of access to social and financial services, they share many common environmental and economic challenges and opportunities.

### Three widespread myths

- **“Pastoralists degrade the environment because they hoard animals”**: Evidence shows that where pastoral mobility and governance institutions are still intact, widespread degradation is rare; degradation occurs where common property systems are eroded and where livestock herds are prevented from moving to allow pastures to rest. This fact is behind environmental payments to encourage mobile herding in countries such as Spain, Switzerland and Australia.

- **“Pastoralists must be settled for their own good, and to preserve land for other uses”**: Evidence shows that sedenterization usually creates more poverty and environmental damage. The best way to effectively manage rangelands is through carefully timed grazing, which demands herd mobility and intelligent management. When effectively managed, rangelands support not only livestock but also biodiversity, and this combination offers the best options for sustainable and resilient livelihoods. Pastoral people often choose settlement, for example to improve their access to centrally provided services, and yet, adapting such services to remote and mobile populations will achieve great benefits.

- **Pastoralists create conflict**: Pastoralism worldwide is characterized by peace, owing to the strong traditions of cooperation and resource sharing amongst pastoralist communities. Where conflicts prevail, there are usually underlying factors such as the erosion of local governance arrangements, expropriation of natural resources or alienation from services and decision making. Conflict is usually a manifestation of failure to provide security and basic services, and uphold basic rights, including common land rights.

### Four emerging issues

- **Land grabbing** for conservation, biofuel production, large scale agriculture, mineral extraction, and other activities is occurring at a fast pace. Many countries do not adequately protect pastoral land tenure, and chronically under-invest in these areas. This is made easier where governments classify drylands as “waste lands”, allowing them to assume that changing the use of land does not impose a cost. Safeguards are needed to prevent the annexing of critical commonly managed pastoral resources, such as seasonal grazing, access corridors, or watering points.

- **Climate change** already has an impact on pastoralists, although pastoralism is generally more resilient and adaptive than sedentary farming. Pastoralism is a natural adaptation to climatically uncertain and variable environments, and since climate change will amplify such characteristics pastoralism will increasingly play a role in resilient food production systems.

- **Pastoralist empowerment** is steadily gaining ground and this is already being felt in changing public policy and sentiment. Although there is a
long way to go, pastoralists can no longer be overlooked for being disorganized, ill-informed, and withstanding change. There is a growing pastoralist voice demanding action to uphold their rights and take their livelihoods into consideration in sustainable development.

- **Demographic changes** affect pastoralists around the world in different ways. In many African countries a growing pastoralist population is surviving on a declining available land area. In a number of industrialized countries the challenge is depopulation of rural areas which leads to insufficient labor for effective herding and breakdown in transmission of local knowledge.

**Economic, social and environmental benefits**

Sustainable pastoralism contributes to soil formation, soil fertility and soil carbon, water regulation, pest and disease regulation, biodiversity conservation and fire management.

In addition pastoralism contributes to economic growth and resilient livelihoods in lands that are exposed to unpredictable climates and numerous natural hazards.

Evidence is also increasing that extensively produced livestock products are healthier for consumers than products from intensive systems.

Pastoral poverty, particularly in the developing world, is the outcome of long-term underinvestment in basic human development: in education, health, security and good governance. On a purely economic basis pastoralism contributes strongly to rural economies, but this wealth is not translated into development.

**Enabling sustainable pastoralism**

The rising global demand for livestock products (meat, milk, fat, fiber, hides) underlines the urgency for transformation in the production and consumption of livestock products towards greater sustainability. At the same time, the increasing degradation of rangelands highlights the need for sustainable solutions for the conservation and sustainable use of such ecosystems. The Post-2015 Agenda provides an opportunity to work globally towards enabling **sustainable pastoralism** on healthy rangelands, and to provide a significant share of livestock products in local and international markets. Investment in enabling sustainable pastoralism will rest upon the following six pillars:

1. **Innovation in the provision of basic services** that are appropriate to the mobile production systems of pastoralists, including renewable energy, mobile health and veterinary services, long distance schools and communications, and safe water for humans and animals;
2. **Legal protection of collective land and natural resource rights**, and private rights, to manage grazing areas, wildlife, water sources and livestock movement corridors, risk and
resilience, and to enable land use planning and ecosystem management by pastoralists;

3. **Equitable value chains and market access** that provide economic opportunities to pastoralists through information, diversification, certification, niche markets, payments for ecosystem services, sustainable tourism, and local and sub-regional marketing infrastructure;

4. **Empowered pastoralist institutions and systems** through respect for indigenous knowledge and breeds, enabling knowledge sharing and networking, professional certification of herders and shepherds in sustainable land management, Free, Prior and Informed Consent, and improving representation in decision making;

5. **Supportive policies and fair trade** by creating a more level playing field with other sectors - where subsidies are fair, tariffs are levied for environmental costs of different sectors, and banking, credit and insurance are available;

6. **Awareness of consumers and producers** to respect the environmental values of rangeland biodiversity, genetic diversity of breeds, the cultural values of pastoralism and the health benefits of pastoral products.

**References**


Forthcoming: McGahey, D, Davies, J, Hagelberg, N. and Ouedraogo, R. 2015: Pastoralism and the green economy – a natural nexus. UNEP and IUCN.

