Pastoralism—extensive livestock production in the rangelands—is one of the most sustainable food systems on the planet. Pastoralists are stewards of more than a quarter of the world’s land, conserving rangeland biodiversity and protecting ecosystem services. They produce high quality milk and meat that are healthier and have lower environmental impacts than similar products from intensive systems, as well as other high value products like fiber and leather. Pastoralism is practiced by between 200 and 500 million people worldwide, encompassing nomadic communities, transhumant herders, and agro-pastoralists, many of whom are facing similar challenges in both developed and developing countries. Progress in pastoral areas generally falls behind that of other communities, creating poverty and vulnerability that undermine the sustainability of the system. Enabling conditions are needed for pastoralism to fulfill its potential in the Post 2015 Agenda.

One of the key challenges around dryland development and pastoralism has been the deeply entrenched prejudice that pastoralism is primitive, unviable and outmoded. Pastoral livelihoods, especially in Africa, are portrayed as unproductive and environmentally destructive, leading regional and local authorities to encourage pastoralists to settle. More than two decades of research has provided evidence for the opposite perspective: pastoralism as economically rational and viable, and as a vital tool for large-scale conservation and ecosystem management. This paper summarizes recent scientific analysis (Forthcoming by IUCN and UNEP, Pastoralism and an inclusive green economy) and highlights four overlooked facts, four widespread myths, four emerging issues, and a suite of options for a new development paradigm for sustainable pastoralism.

Four overlooked facts

- **Mobility** of livestock (and wildlife) is essential for the health of dryland ecosystems: for carbon sequestration, watershed protection, and biodiversity conservation. Whilst patterns and extent of herd mobility can be very diverse, it is evident that some form of mobility is essential for pastoralism and for sustainable rangelands management.

- **Intensive livestock systems** as they are practiced today, can degrade the environment by producing high levels of carbon and methane emissions, polluting water courses, and causing land degradation. Cereals being produced for feed take away land from food production. Some forms of intensification have negative effects on human and animal welfare.

- **Sustainable pastoral systems** are more efficient, productive, and resilient than sedentary, agricultural systems in the same rangelands, when all factors and environmental benefits are counted, and they provide healthier products for human consumption.

- **Pastoralism is a universal issue:** although pastoralists in developed and developing countries face different challenges in terms of access to social and fiscal services, they share many common environmental and economic challenges and opportunities.

Four widespread myths

- **Pastoralists degrade the environment because they hoard animals.** Where pastoral mobility and governance institutions are still intact, widespread degradation is rare; degradation occurs where common property regimes are eroded and where livestock herds are prevented from moving to allow pastures to rest. Indeed, due to the ecological dependency of rangelands on grazing, under-grazing is often as much of a problem as over grazing. 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.** 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 services, but safeguards must be put in place against curtailing mobility of the livestock herds as this degrades the environment. Further safeguards are needed to prevent the annexing of critical commonly managed pastoral resources, such as seasonal grazing, access corridors, or watering points.

- **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.

- **Industrial livestock systems are the only solution for development:** There is a rapidly growing demand globally for meat and milk, but the current emphasis on intensive livestock systems currently means more pollution, global disease epidemics, reduction in animal welfare, less nutritious food, higher concentration of wealth in settlements, undermining of local rural economies, and a higher carbon footprint. Pastoralism accounts for 25% of the world’s land use, and provides a major proportion of organic meat and milk, much of which remains beyond the reach of existing local and regional markets.

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.

- **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 resource base as herd sizes have remained the same and the total available land area has declined. 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.

An Inclusive and Green Economy

The Green Economy is a vision of a more sustainable future, in which production and consumption are sustained within the earth’s safe operating space. Pastoralism is one of the few food production systems—and currently the most widespread—to provide high quality food whilst protecting the ecosystem services on which it depends. Although pastoralism already contributes significantly to both food production and environmental protection, long-term underinvestment and policy constraints mean that it still falls a long way short of its potential.

Recommendations for sustainable pastoralism in the Post 2015 Agenda

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 points to finding sustainable solutions for the conservation and sustainable use of such ecosystems. The Post-2015 Agenda provides an opportunity to work globally towards such transformation.

Solutions can involve a move towards a **globally equitable and healthy diet of livestock products** by reducing overconsumption, raising the human health qualities of meat and milk, and increasing diversity of products. Solutions can also **reduce the environmental and social impacts of commercial livestock systems** through appropriate investments and regulations.

And finally, solutions can focus on enabling **sustainable pastoralism** on healthy rangelands 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. **Providing sustainably-derived technologies for the provision of basic services** that are appropriate to the 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. **Recognizing land and natural resource rights** by legally protecting collective and private rights to manage grazing areas, water sources and livestock movement corridors, wildlife management, risk management and resilience, and enabling land use planning and ecosystem management by pastoralists;

3. **Building 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. **Empowering pastoralist institutions and systems** through respect for indigenous knowledge and breeds, enabling knowledge sharing and networking, professional certification of herders and shepherds in sustainable management, and ensuring Free, Prior and Informed Consent;

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

6. **Promoting awareness of consumers and producers** that respects the environmental values of rangeland biodiversity, genetic diversity of breeds, the cultural values of pastoralism and the health benefits of pastoral products.

For further information: Jonathan.davies@iucn.org • www.iucn.org/wisp | Niklas.hagelberg@unep.org • www.unep.org/post2015