



SNV

Increasing resilience of pastoralists in African drylands

Climate change and competition over resources threaten pastoralist systems in African drylands and risk to drive vulnerable communities further into poverty. SNV provides pastoralists and agro-pastoralists with the tools, knowledge and capacity to increase their resilience and build sustainable livelihoods.

Livestock is a vital and valuable part of Africa's drylands¹, supporting the livelihoods of over 110 million people across the Sahel and the Horn of Africa. Through the production and trade of meat, milk and skins, (agro-)pastoralists contribute significantly to the region's economy and the demand for livestock products continues to grow. At the same time, drylands are also among the poorest regions, with an estimated 80% of all pastoralists in Sub-Saharan Africa living below the poverty line².

The mobility of pastoralists, which is crucial in adapting to changing conditions of water and pasture resources, is increasingly under pressure. Historic marginalisation, under-investment and policies promoting in-migration of agriculturalists, sedentarisation, security threats and privatisation of resources – has severely weakened the pastoral system and led to increased fragmentation of, and competition over, natural resources³.

These challenges are, and will increasingly be, amplified by the impacts of climate change. It is expected that higher temperatures, more variable rainfall and an increase in extreme weather events will severely affect the pasture and water resources that are so critical for pastoralists. This makes it more and more difficult for pastoralists to adapt to new shocks and move out of poverty. Without action, the number of poor and vulnerable people within pastoral communities is likely to increase drastically.

In its many years working with pastoral communities throughout East and West Africa, SNV has developed effective strategies to enable pastoralists to build resilient livelihoods and become part of profitable value chains. Our goal is to stimulate this demand-driven approach to poverty alleviation so pastoralists can optimally benefit from the variety of advantages that livestock offers them, including food & nutrition security, work, economic and social status and a cash buffer against shocks. This infosheet highlights the different approaches and tools that SNV is implementing, along with examples illustrating what we have achieved in various countries.

Our approach

Despite the many challenges, there are growing opportunities in the livestock sector that can benefit pastoralists and drylands. Pastoralism has demonstrated its capacity to adapt to ever-changing environments and has the potential to contribute to meeting the growing demand for meat and milk, including in urban areas. SNV works at the producer level, the supply chain level and across the wider landscape to deliver livelihood benefits for pastoralists and achieve sustainable development at scale.

Landscape level and beyond

As the spatial dimension is so vital in the pastoral environment, SNV is exploring ways to improve pastoralists' access to information across the landscape and beyond borders. We work with geodata to map pastoral movements and resources to inform land use planning. Our latest innovation is a mobile information system that provides pastoralists with up-to-date information on where to find pasture and water resources, what weather to expect, which areas to avoid, and what the livestock prices are at nearby markets (see Box 1). This ensures better decisions on herd movement, resulting in a more sustainable use of resources, improved livestock productivity, and a decrease in conflicts between farmers and pastoralists.

SNV also supports pastoralists to play a more central role in the management of land, resources and services. In many countries across the Sahel we help establish multi-stakeholder platforms that foster a peaceful transhumance and equitable sharing and management of natural resources (see Box 3). These measures can lead to a steep decline in conflicts and increase cooperation and synergies between the different land uses (see Box 2). Similarly, we empower pastoralists to self-manage or co-manage key services, such as cattle dips, water sources or livestock markets.

The participation of pastoralists in policy dialogue is essential in achieving the above-mentioned interventions. As part of our multi-country "Voice for Change Partnership" programme, we work with pastoral civil society organisations in Kenya and Burkina Faso to strengthen their voice in policy debates through evidence-based advocacy. This work focuses on including pastoralists' needs in (climate-related) plans and policies, enhancing pastoral land management and mobility, strengthening customary institutions and ensuring improved service provision.

Box 2: From conflict to cooperation in Cameroon

In Cameroon's North West Region, SNV set up dialogue platforms, which bring together farmer representatives, pastoralists and local authorities to develop solutions to the ongoing conflicts between farmers and pastoralists and make annual land use plans. The platforms helped prevent the conflicts from escalating by fostering the establishment of mutually beneficial farmer-grazer alliances. These are partnerships between a pastoralist and one or more farmers, whereby the pastoralists' animals are permitted onto (fenced) farm land to eat crop residues during predefined periods. The farmers benefit by using the manure deposited in the field to improve soil fertility. After 5 years, 54 dialogue platforms were active in the region, solving over 90% of the conflicts they dealt with. The approach has been incorporated into Cameroon's pastoral code.

Box 3: Strengthening governance in Mali

In Mali, SNV brought together partners, pastoral communities and local authorities to establish a peaceful resource management process, which aims to secure transhumance routes and improve access to pastures and water sources. The second phase of this Local Democratic Governance Programme focuses on civil society strengthening, action research and advocacy for better natural resource management policies, conflict resolution and prevention, and economic development for vulnerable groups.

Box 1: Mobile innovations for Sahelian pastoralists

In the Netherlands Space Office funded STAMP and MODHEM projects in Mali and Burkina Faso, SNV and private sector partners (including Orange, Hoefsloot Spatial Solutions, Ecodata and SarVision) provide pastoralists with detailed information on biomass and water availability and quality, herd concentrations, weather information and market prices – all easily accessible through their mobile phones. This supports them in planning their transhumance, and in selling their animals at a good price, enabling them to better adapt to droughts. The information is derived from a combination of data collected in the field and from geo-satellites.



Value chain level

SNV has developed a Climate Risk Assessment tool, which we use at the beginning of projects to identify the main climate impacts, and the vulnerability of actors, resources and processes along value chains and across the landscape. Based on that, we formulate adaptation options that effectively tackle the underlying causes of the identified climate risks.

Livestock markets are one of the main entry points through which SNV improves the livelihoods of pastoralists. In our proven Co-Management Model, which we have widely applied in East Africa, public and private partners jointly take up the management and maintenance of livestock markets. We support the development of business plans to attract more buyers, improve market information, and facilitate improvement of vital services, such as animal health services (see Box 4). As a result, pastoralists do not have to travel such long distances to find a market with fair prices, nor do they need to engage with middlemen. This offers pastoralists the opportunity to sell more animals at the onset of a drought, allows them to have a smaller herd that can better withstand the dry period, and provides them an income that can serve as a financial buffer.

Women face particular challenges when it comes to integration in value chains due to cultural barriers that limit their access to productive resources and activities. Next to tackling these barriers at the policy and community levels, SNV works with women groups to set up profitable and sustainable businesses, ranging from trading in small stock

to dairy processing and animal fattening. As women spend the major share of their incomes for the benefit of their families, increasing their incomes will boost the resilience of the whole household.

Dairy offers various opportunities for income diversification and contributes to improved food and nutrition security of the local population. Throughout western and eastern Africa, SNV has helped producers to organise themselves in dairy cooperatives and establish micro-processing units that enable local production and marketing of dairy products, including camel milk (see Box 5).

Box 4: Strong livestock markets for resilient communities in northern Kenya

In Kenya's Arid and Semi Arid Lands, SNV has implemented a co-management model which ensures shared management of the market by authorities and the community. This model, which has been implemented in over 40 livestock markets, has led to significant improvements in market functioning, infrastructure, security and information provision, and helps to attract more buyers, service providers and other businesses. The markets function as a hub, attracting a variety of goods and services which offer the local population (especially women) opportunities to engage in income generating activities.



Box 5: A women-led camel milk cooperative in Kenya

In Isiolo County in Kenya, SNV has supported a women-led camel milk cooperative in improving the handling, cooling, marketing and transportation of camel milk. What started as a self-help group, has now turned into a well-functioning cooperative with over 100 members, which delivers over 2500 liters of camel milk to the Nairobi market on a daily basis. The milk, that camels even produce throughout dry periods, offers women a stable and climate-resilient income.

Local production

In conjunction with natural resource management at the landscape level, SNV also works at the community and farm levels to improve the management of water, pasture, farmland and trees. This is especially relevant for producers that combine livestock and farming (agro-pastoralists).

In our work we aim to create synergies between both systems. We stimulate the productive use of manure for biogas production or as organic fertilizer. Likewise, we integrate fodder trees and crops into farming systems, offering nutritious food for the animals benefitting their health and productivity. Trees are an essential element in these systems based on their multiple benefits ranging from improving soil fertility and biodiversity to providing (protein-rich) fodder, fruits, wood and timber. We also work on increasing the availability of quality feed, even throughout dry periods, through improved pasture management, the production and storage of hay and the management of fodder banks in landscapes where this is possible. Box 6 describes how we combined some of these practices.

Box 6: Combining pastoralism, farming and biodiversity conservation in Benin, Niger and Burkina Faso

The EU-funded “Reduced Transhumance pressure for better conservation of protected areas” project has improved the adaptive capacity of pastoralists that go on transhumance through the transboundary WAP area (W, Arly and Pendjari national parks), while supporting conservation of the parks’ valuable biodiversity. An ecosystem-based adaptation approach has ensured better management of over 200 km of strategic transhumance corridors, restoration of 1500 ha of grazing land, establishment of 21 water sources, construction of 100 biodigesters and formation of 30 inclusive management committees. This enables pastoralists to better cope with droughts and prevents their intrusion into protected areas and farm land.

Our impact

15 projects

7 countries

Burkina Faso, Mali, Niger, Kenya, Cameroon, Ethiopia, Mozambique

Improving the lives of over

180,000 people



1. Arid, semi-arid, and dry sub-humid zones in Sub-Saharan Africa
2. De Haan, C. (editor). 2016. Prospects for Livestock-Based Livelihoods in Africa’s Drylands. World Bank Studies. Washington, DC: World Bank.
3. Flintan F. (2011) “Broken lands: Broken lives?” Causes, processes and impacts of land fragmentation in the rangelands of Ethiopia, Kenya and Uganda, Regional Learning and Advocacy Programme, Nairobi; Elmi M., Birch I. (2013) Creating Policy Space for Pastoralism in Kenya, Future Agricultures, Working Paper 068

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