



# **Policies and Strategies to Address the Vulnerability of Pastoralists in Sub-Saharan Africa**

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## **EXECUTIVE SUMMARY**

### **Introduction**

Pastoralism is the key agricultural production system in the drylands. As drylands constitute nearly half of the land area of sub-Saharan Africa, pastoralism is of particular importance for the continent and in some countries pastoralists even represent the majority of the population. This notwithstanding, most governments of countries with pastoral populations are reluctant to invest in pastoral production systems, pastoralism being regarded as backward with little potential for improvement. The FAO Pro Poor Livestock Policy Initiative aims to contribute to poverty reduction among livestock keepers by supporting the formulation and implementation of policies, which improve their livelihoods, and this paper intends to provide an overview of policy options, which can mitigate the vulnerability of pastoralists and / or facilitate income diversification and adoption of alternative livelihoods.

### **Pastoralism in sub-Saharan Africa**

Given that non-traditional sources of income are becoming increasingly important for livestock keepers practicing communal grazing in dryland areas, this paper defines pastoralists and agro-pastoralists as people making a living in drylands and obtaining a given percentage of their gross agricultural as opposed to total income from livestock.

By combining data from various sources, it is estimated that there are about 120 million pastoralists/agro-pastoralists worldwide, of which 50 million reside in sub-Saharan Africa (SSA). Within sub-Saharan Africa, Sudan and Somalia have the largest pastoral/agro-pastoral populations of seven million each, followed by Ethiopia with four million.

The number of livestock in the pastoral/agro-pastoral production systems in sub-Saharan Africa was estimated by overlaying the livestock production systems maps with livestock density maps. The largest number of pastoral/agro-pastoral livestock is found in East Africa. Within East Africa, Sudan has the largest numbers of pastoral/agro-pastoral livestock comprising an estimated 18 million cattle, 18 million goats and 22 million sheep. In West Africa, the number and proportion of animals in pastoral/agro-pastoral production systems is lower than in East Africa. In West Africa the largest numbers of livestock kept in pastoral/agro-pastoral production systems are found in Niger (1 million cattle, 6 million goats, 4 million sheep) and in Mauritania (1 million cattle, 4 million sheep and 6 million goats).

Estimating meat production from pastoral/agro-pastoral livestock and relating it to total national meat production reported in FAOSTAT shows that in Djibouti, Somalia, Eritrea, Sudan, Western Sahara, Niger, Mauritania, Benin, Chad, Guinea-Bissau, Guinea and Mali pastoralists/agro-

pastoralists not only own a major proportion of the national herd but also contribute a significant share to national meat production.

Worldwide, pastoralists constitute one of the poorest population sub-groups and among African pastoralists/agro-pastoralists the incidence of extreme poverty ranges from 25 to 55 percent.

## The Vulnerability of Pastoral Livelihoods

Examining the welfare of pastoralists by using elements of the sustainable livelihoods framework facilitates identification of the causes and dynamics of poverty among pastoralists. The livelihoods framework emphasizes that the overall livelihood of pastoral people depends on both access to assets, such as pasture, water, animal health services, markets, credit and education, and the environment in which these assets are combined for production and consumption purposes, namely the political, organisational and institutional infrastructure. Furthermore, the livelihoods framework sets the welfare of pastoralists in the dynamic context of risks, seasonal and long-term trends which affect assets and livelihood strategies and determine the level of vulnerability.

Following Dercon (2001), risks are defined uncertain events that can damage wellbeing. The uncertainty pertains to the occurrence, timing and magnitude of the negative event. Vulnerability denotes the lack of resilience to the occurrence of these uncertain events (risks), including long-term and seasonal trends; vulnerability, therefore, is not only an important dimension of poverty and deprivation, but also a potential cause.

The World Bank Development Report 2000/2001 classifies risks by the level at which they occur: (1) micro-shocks, often referred to as idiosyncratic, affecting specific individuals or households; (2) meso-shocks that affect specific groups of households within a region, and (3) macro-shocks that affect all households in a region. The latter two are referred to as covariant. Pastoralists face the natural covariant risk of drought; the idiosyncratic risk of human illness and the idiosyncratic risk of livestock diseases, which can turn into a covariant risk in case of an epidemic; the economic risk of exclusion from markets; and the social risk of violent conflict over increasingly scarce resources, which can turn into the risk of civil strife. This latter risk is amplified by the political risk of marginalization and the environmental risk of pasture degradation.

Given this multitude of risks and the extreme vulnerability of asset-poor pastoralist the paper emphasizes that policy makers need to invest in the development and implementation of risk management policies / strategies, while the long term trend of increasing human populations in the drylands needs to be addressed by strategies that support adoption of alternative income generation activities by pastoral/agro-pastoral people.

## Risk Management Policies/Strategies

For policy making it is important to distinguish between idiosyncratic and covariant risks. The management of covariant risks often calls for public sector engagement and investment, while idiosyncratic risks are normally best dealt with by the household itself. Risk management strategies can be sub-divided into risk reduction, risk mitigation and risk coping strategies. In principle the preferred approach should be first to reduce the likelihood of risks, then to mitigate the negative impacts of a shock (i.e. a materialized risk), so that the need for coping strategies is minimized. This is not always possible however. While the outbreak of epidemics, violent conflicts and riots, or the degradation of pastureland can in theory be prevented, in the case of drought only risk mitigation strategies can be set in place.

Irrespective of the risk type, poor herders are more likely to end up with an unviable herd size than wealthier herders, even when they loose the same relative amount of livestock. Policy makers, therefore, should target risk-management strategies to particularly support the poorer livestock keepers, which are less likely to be able to absorb shocks without seriously depleting their resource assets. Public risk management strategies should also be tailored to the diverse risks pastoralists/agro-pastoralists face.

## **Managing the Risk of Drought**

An early warning system for drought in combination with timely market interventions and the establishment financial institutions can increase the ability of herders to transform those livestock which cannot withstand the stress of the drought into other assets such as cash, fodder or food grain. The development of forecasting technologies bears the opportunity to implement timelier movement/de-stocking/re-stocking strategies allowing pastoralists to maintain their breeding assets through crises. Risk coping strategies providing incentives for destitute pastoralists to invest in alternative income generating activities outside the pastoral sector not only help these pastoralists to cope with the loss of their main livelihood supporting activity, but also mitigate the negative effects of growing pastoral populations on shrinking rangelands.

## **Managing the Risk of Epidemic Animal Diseases**

The risk of epidemic diseases potentially threatens all pastoralists. However, poor pastoralists are more vulnerable to this risk, as by living in remote areas they often lack access to veterinary services and do not have the means to purchase drugs for disease prevention and treatment. The introduction of community-based animal health workers (CBAHW) is a powerful measure not only to increase the coverage of preventive animal health services in sparsely populated areas, but also to provide curative services and preventive measures for non-epidemic diseases on a cost recovery basis. Additionally CBAHWs can be engaged by the public sector for disease surveillance and prevention campaigns against transboundary animal diseases. Recently, some innovative approaches have attempted to use community-based workers to provide advice both for animal and human disease. Preliminary assessments suggest that an intersectoral approach to human and animal health is a cost-effective strategy that can contribute to the alleviation of poverty and reduction of disease burdens, particularly suited to nomadic populations.

## **Managing the Risk of Market Exclusion**

The main market risk policy makers should be concerned about is the exclusion of their nation states (or large segments thereof) from livestock export markets due to insufficient health standards and / or due to the loss of international competitiveness. The reduction of this risk needs attention not only because of the negative impact it has on the national economy but also because if local livestock keepers were able to participate in satisfying the demand for livestock products, they would increase their monetary income and thereby their capacity to handle other risks. Preventive health measures as well as the investment in quarantine stations and holding grounds provide a way to reduce the health risk leading to market exclusion, while the reformulation of health standards for marketing could mitigate the impact of that health risk.

Transport constitutes a major cost factor in livestock trading: livestock are trekked or trucked to markets, with trekking being the predominant mode of transportation in West Africa. However, trekking has high indirect costs due to animal mortality, weight loss, trekker time as a result of stock routes and watering points being mostly in bad conditions, and carries the risks of raids or conflict with farmers along marketing routes. The public sector should reduce the transport costs imposed on traders and pastoralists, e.g. by investing in transport infrastructure (roads, trekking routes and water points). Although livestock are one of the most repeatedly (and perhaps the most highly) taxed agricultural commodities in Africa, livestock taxes and transit fees are rarely used to improve the physical structure or the efficiency of livestock markets. The governing principle should be to levy user fees and taxes on livestock producers and traders for visible, tangible services and for maintenances and upgrading of market facilities.

## **Managing the Risk of Violent Conflict**

The risk of violent conflict, which can escalate into civil strife and war, negatively affects pastoralist livelihoods per se but also because it deters livestock keepers from investing resources in the management of other prevailing risks. Conflict management encompasses both conflict prevention and conflict resolution to mitigate the effects of conflict. Traditionally, the response to conflict was fixed on resolution. However, the policy paradigm is now shifting and there is a growing recognition that conflict prevention strategies are probably more effective than resolution-oriented strategies.

Conflicts can be prevented through the establishment and enforcement of rules over natural-resource use, collective acceptance of such rules, and continuous negotiation of diverging demands. The regulation of access to natural resources should aim both to prevent degradation and violent conflict. Community-based natural resource management including all user groups in the negotiation process about the rules of access is a promising option for conflict prevention between conservationists, pastoralists and farmers. The model of key-site management by community-based organizations is a promising option for sustainable range management, which can prevent conflict among pastoralists as well as between pastoralists and farmers.

Equally important are measures to overcome the widespread marginalization of pastoralists. On the one hand, understanding of pastoral livelihoods needs to be enhanced among non-pastoral groups, while on the other hand, the capacity of pastoral groups to promote their interests needs to be strengthened by giving them a voice in national and international policy fora. The process of decentralization, and the underlying concept of subsidiarity offers an opportunity to improve political stability and empower pastoralists. Pastoralist organizations can facilitate the inclusion of herders' concerns and needs in national development strategies: the Peul Association of Northwest Niger, the Fulani association in Nigeria and the Afar Pastoralist Development Association in Ethiopia (APDA) are examples of pastoralist organizations that enable herder's needs to be expressed at regional or national level. Pastoral people are also forming international organizations to defend their interests. Examples are the World Alliance of Mobile Indigenous People (WAMIP) and the World Herders Council / Conseil Mondial des Éleveurs. Giving these organizations a voice at international conferences and meetings will contribute to changing perceptions and policy decisions on rural development.

## Diversification and Exit Strategies

Even if all above risks faced by pastoralists/agro-pastoralist are suitably managed, in the longer term their wellbeing would decline as a consequence of growing human and livestock populations on limited and often degraded drylands leading to increasing imbalances between the demand for and supply of land and water. Therefore, while individual impoverished pastoral/agro-pastoral households can be helped to regain a viable and sustainable livelihood in pastoral areas, this is no longer true for the pastoral/agro-pastoral population as a whole. Complementary policies / strategies with the objective to reduce the imbalance between humans, livestock and the environment therefore need to be put in place.

The policies / strategies to facilitate the engagement of pastoral people in alternative income generating activities should start from two angles. On the one hand investment opportunities for pastoral people need to be identified followed by the creation of access to credit and training in order to enable pastoral people to pursue the investment opportunity. On the other hand public sector investment in labour intensive infrastructure provision could create employment opportunities for pastoral people, while incentives schemes to train and hire ethnic minorities including pastoral people might be established for the private sector.

## Conclusions and Recommendations

In sub-Saharan Africa, any attempt to achieve the Millennium Development Goal of halving extreme poverty needs to include pastoral/agro-pastoral people. The crucial policy question is whether it would pay off to invest in pastoral development, or whether it would be more appropriate to design exit-strategies for pastoralists/agro-pastoralists allowing them to abandon livestock keeping.

Both of the above options should be pursued in parallel. On the one hand, the increasing pastoral/agro-pastoral populations on decreasing rangelands requires that policy-makers should develop and implement exit and/or diversification strategies for pastoral people. There are, however, also good economic reasons for investing in pastoral areas. First, pastoralism/agro-pastoralism is the best, if not the only, means to make productive and sustainable use of natural resources in arid and semi-arid areas that would otherwise remain unexploited. Second, pastoral/agro-pastoral people produce a large share of the meat supply in many countries of sub-

Saharan Africa. Finally, although pastoral production systems achieve lower yields per animal than 'modern' ranching systems, pastoralism is more productive per unit of land than the latter.

In the course of centuries pastoralists have developed effective mechanisms to survive in this erratic and risky environment. Traditional risk-management strategies include livestock accumulation, regular and opportunistic herd movements tracking rainfall, breed and species diversification, and herd dispersion between community members. For a number of reasons these traditional risk management strategies have become increasingly ineffective over the past decades and poverty levels among pastoral populations have risen. However, if policies are set in place which address these risks, pastoralists cannot only continue to sustain themselves and dispose the resources of the waste rangelands, but also significantly contribute to the national economy. The challenge of governments, multilateral and bilateral agencies, development banks and the stakeholders themselves is to design and implement policies to reverse the negative processes impinging on the wellbeing of pastoral/agro-pastoral households and enable them to actively contribute to rural development and economic growth.