

The path to greener pastures

# Pastoralism, the backbone of the world's drylands



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# The path to greener pastures PASTORALISM, THE BACKBONE OF THE WORLD'S DRYLANDS

**Author:** Andreas Jenet

**Co-authors:** Nicoletta Buono, Sara Di Lello, Margherita Gomarasca, Cornelia Heine, Stefano Mason, Michele Nori, Rita Saavedra, Koen Van Troos.

**Editor:** Paul Mundy

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# 1 INTRODUCTION

Over half of the world's land area is grazed in various ways: in mixed farming systems, ranching, by wildlife and through pastoralism. Pastoralism is practised mainly on the grasslands that cover about a quarter of the world's surface (Follet & Reed 2010). It is also closely associated with mobile herds and with the drylands (WISP 2008, Robinson et al. 2011). Livestock husbandry is the most important method of producing food in the drylands that cover 41% of the Earth's land surface (UNCCD) and are home to about 40% of the global population.

Pastoralism is very diverse: it can be found in all continents, from the drylands of Africa and the Arabian Peninsula, to the highlands of Asia and Latin America, or the tundra in the circumpolar zones, and in particular where crop cultivation is physically limited (FAO 2001). The degree of social and political support for pastoralism is equally diverse, with some governments strongly opposed, while others (such as in Europe) beginning to support it so as to manage and conserve biological diversity (Nori & Gemini 2011).

Regardless of the variations, the various forms of pastoralism have certain common features: communal land ownership and use, mobile herds, and locally adapted livestock breeds. Across Africa, Asia, and Latin America more than 50% of the local breeds of sheep and goats, and almost all those of

camelids and yaks, have been developed in, and are adapted to, the specific conditions and disease prevalence of the respective drylands (Hoffmann 2014).

Pastoralism supports several hundred million households worldwide (Pastoralist Knowledge Hub 2016). It manages one billion animals, including camelids, cattle, sheep and goats, in addition to yaks, horses and reindeer, contributing about 10% of the world's meat production. It produces food and ecological services, and is often the only significant economic contribution in the world's poorest regions. It is the cultural backbone of longstanding civilizations (Nori and Davies 2007). With its mobility and collective resource management, it is now recognized as a rational and sustainable livelihood strategy in marginal lands (Morton et al. 2007).

Pastoral regions generally have few alternative economic options. But despite their contribution to national economies, pastoral communities are often marginalized and ignored. While pastoralism is a risky livelihood, it is still a viable way to use certain areas. This is especially true in regard to climate change, shifting global markets, population growth and increasing competition for land and other natural resources. Understanding how it works is vital for efforts to reduce poverty in pastoral communities.



Rangeland ecosystems produce food and maintain biodiversity, but these services are increasingly under threat. Climate change and large-scale agro industrial investments limit grazing lands and the freedom of movement for pastoralists (Schröter et al. 2005, Abildtrup et al. 2006). Rising human populations, land-use changes and urban-based economic development are marginalizing dryland users. That poses challenges for professionals and practitioners to sustain and protect these invaluable social, cultural, economic, and ecological assets (Nori and Davies 2007).

Despite the benefits of pastoralism, its future is subject to controversy. Appropriate technical, social and economic solutions are needed, particularly with the current political tensions affecting many of the drylands in Asia and Africa.

## TWELVE NARRATIVES ON PASTORALISM

We can identify a range of viewpoints, or “narratives”, on pastoralism in policy documents (Odhiambo 2014) and technical reports. Some of these are complementary; others are contradictory. The choice of development interventions depends on which narrative, or narratives, we subscribe to (**Table 1**).

The various narratives lead to different consequences. Most fall into two competing visions (the last two rows in **Table 1**). The first sees pastoralism as irrational, unproductive and backward, leading interventionist development approaches that aim to convert the pastoralist livelihood model. The second envisions a territory of production where social relations are uniquely suited to the ecological situation, but which may also adapt to new opportunities. This calls for a bottom-up, organic change that builds on people’s institutions, systems, knowledge, interests and aspirations - making pastoralists the subjects rather than objects of transformation. We have used the territorial approach (row 12 in **Table 1**) as we believe it is the best option for effective, participatory development in pastoralist areas.

The understanding of pastoralism has changed continuously in the last 20 years. It has shifted from the view of pastoralism as an irrational way of life towards a systemic territorial approach. This is particularly so nowadays when sustainability and resilience are taking an increasing role in the international development debate.

The different narratives affect the decisions and policies made by government and development organizations. But these are often poorly suited to the situation faced by pastoralists, service providers and other organizations in the drylands. A better understanding of pastoralism is needed to improve decision-making that affects pastoral areas and the people who live there.

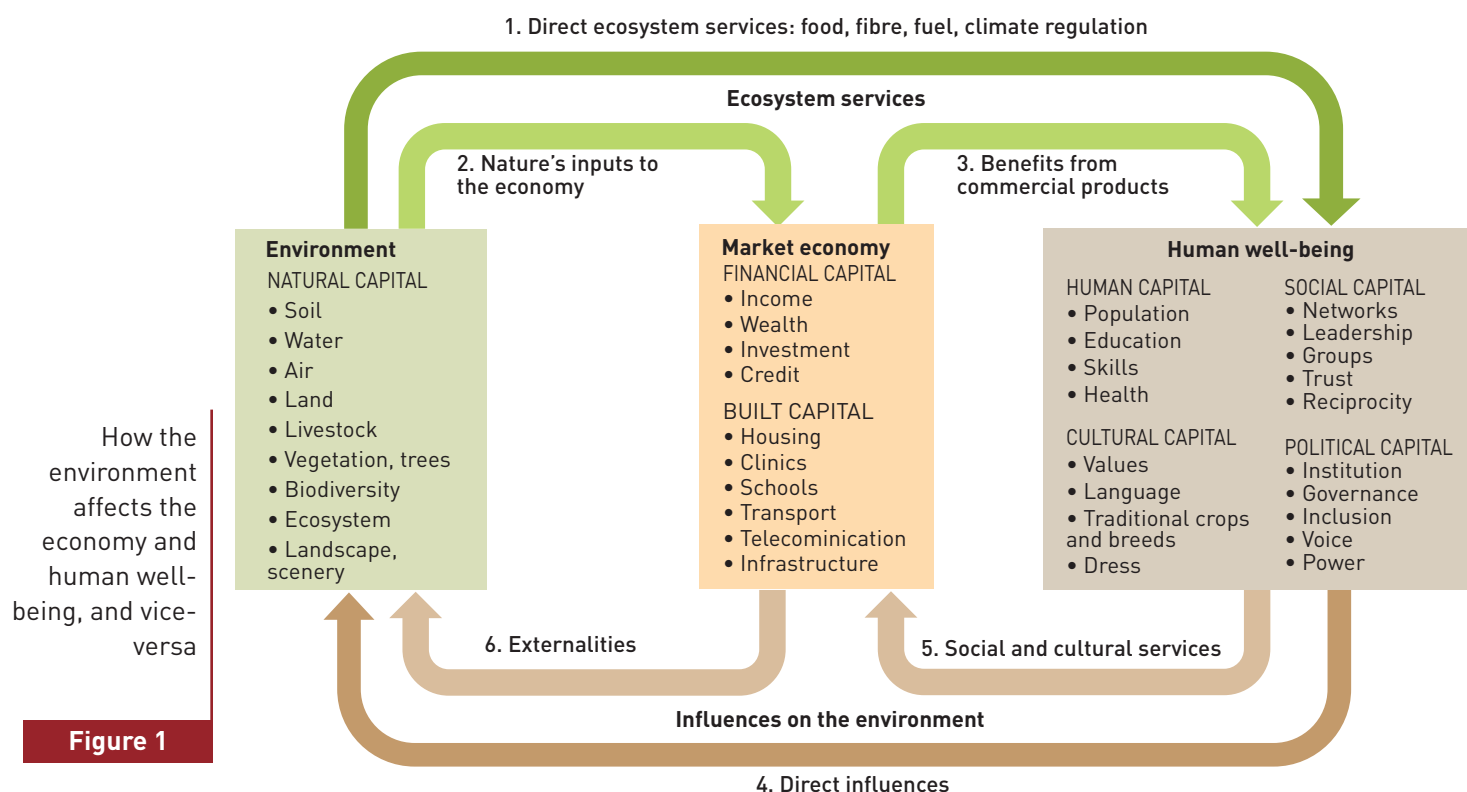


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Table 1. Twelve narratives on pastoralism

NARRATIVE	DESCRIPTION, COMMENTS	CONSEQUENCES
<b>1. Humanitarian</b>	<p>"Drylands are beset by natural disasters and frequently or always need food aid."</p> <p>This view is held mainly by technical organizations and legitimizes emergency interventions or relief directed to drylands.</p>	Legitimizing emergency interventions or relief
<b>2. Pastoral governance</b>	<p>"Drylands are an integral part of the national economy, but require special attention because of their disadvantages and marginalization."</p> <p>Such affirmative action may have various aspects but in general involves giving decision-making power to pastoralists. This view is often held by advocacy groups and pastoral interest bodies.</p>	Affirmative action
<b>3. Colonial debt</b>	<p>"Drylands have been neglected since colonial times. They have real potential that has been left untapped, calling for financial investments."</p>	Development aid
<b>4. Adaptation</b>	<p>"Drylands are resilient, and mobile pastoralism is the most appropriate livelihood, offering comparative advantages over other land uses. Pastoralism should be supported, alongside other alternatives."</p>	Support pastoralism alongside alternatives
<b>5. Integration</b>	<p>"National integration of pastoralism must be promoted; failure to do so amounts to a lost opportunity for the national economy. Pastoralist policies must be mainstreamed."</p>	Mainstreaming pastoralist policies
<b>6. Security and conflict</b>	<p>"The bulk of government resources for drylands focuses on security. Local people are violent; these areas are conflict-prone and have few opportunities for development."</p>	Depicts local people as violent and pastoralist areas as conflict-prone
<b>7. High-potential areas</b>	<p>"Crop agriculture is the foundation of the national economy. The government's focus on investments in crop-producing areas and on developing green patches in the drylands is justified."</p> <p>Expansion into dry-season grazing areas does not consider the effects on livestock production or the pastoralists' contribution to economic and food security potential in drylands.</p>	Justifies focus on investment in crop-producing areas and on developing green patches in the drylands
<b>8. Trickle-down economics</b>	<p>"Government investment in 'high-potential areas' is justified because the high returns will subsidize drylands."</p> <p>Drylands are deemed to be non-productive and dependent on external assistance. This view neglects the economic contribution of drylands through pastoralism, pasture for wildlife, extensive livestock grazing, and timber and non-timber products (e.g. ecosystem services).</p>	Justifies government investment in "high potential areas", arguing that returns will subsidize drylands
<b>9. Environmental</b>	<p>"Mobile pastoralism is irrational, unproductive and environmentally destructive; drylands are degraded because of pastoralism."</p> <p>This justifies the drive to settle pastoralists and promote other livelihoods in the drylands. This has led to the push for Western models, which are seen as rational but have limited applicability.</p>	Justifies settling pastoralists and promoting other livelihoods in drylands
<b>10. High-reliability vs. risk averse</b>	<p>Pastoralism is a high-reliable activity during disasters, since it actively manages risk in environments where disasters are highly probable (pastoralist are experts in managing risks), and is contrary to risk-aversion or risk-minimizing approaches (building permanent wells, promoting concentrates and less dependency on pasturelands as risk minimization).</p>	Justifies risk management rather than risk minimization
<b>11. Irrational</b>	<p>"Pastoralism is unproductive and backward."</p> <p>This leads to an interventionist approach to change the pastoralist livelihood model.</p>	Conversion of pastoralist livelihoods
<b>12. Territorial</b>	<p>"In pastoralist areas, social relations are uniquely suited to the ecological situation and allow adaptations to new opportunities."</p>	Bottom-up change that builds on existing institutions and aspirations.





## FRAMEWORK OF THIS REPORT: THE COMMUNITY CAPITAL FRAMEWORK

This report aims to close the knowledge gap by offering practical recommendations for effective policies and programmes. It looks at the factors impeding development in pastoralist regions, and suggests possible solutions to improve pastoralist livelihoods. It is organized around the community capitals, which combines two major lines of assessing livelihoods: livelihoods-centred approaches (political ecology) and economy-centred approaches (green accounting). These are commonly regarded as mutually exclusive, even though nature and people are strongly interlinked in social ecological systems.

The framework is based on seven types of capital, grouped into three groups (**Figure 1**) (adapted from (Chain-Guadarrama, et al. submitted))

**The environment** includes one type of capital:

- **NATURAL CAPITAL:** the ecosystem's structure and processes. This provides possibilities and

limits to human action.

**Human well-being**, which includes human, cultural, social and political capitals:

- **HUMAN CAPITAL** refers to individuals' characteristics determined by the intersection of genetics, social interactions and environment.
- **CULTURAL CAPITAL** determines how individuals see the world, what they take for granted and value, and what things they believe are possible to change.
- **SOCIAL CAPITAL** represents the interactions among individuals, determining the ability to influence standards regulation and enforcement of those regulations.
- **POLITICAL CAPITAL** reflects a group's ability to mobilize and to influence standards, regulations and enforcement to determine the distribution and use of resources.

**The market economy** is represented by financial and built capitals.

- **BUILT CAPITAL** is human-constructed infrastructure used for production of other capitals.
- **FINANCIAL CAPITAL** refers to forms of currency used to increase capacity.

The various forms of capital influence each other, as indicated by the arrows in **Figure 1**.

## INFORMATION SOURCES

The report draws on some 20 years of work by the members of Vétérinaires Sans Frontières International network and their partners in the countries where they operate. It is based on four components:

- A global **assessment of literature** and policy documents on pastoralism
- A **survey on the enabling environment and policies** in 26 countries with large numbers of pastoralists
- A **survey of pastoralist practices** and realities in eight pastoralist “hotspots”
- Five participatory **regional stakeholder gatherings**.

We describe each of these components in the following sections.

## Literature review

There is a general lack of peer-reviewed literature on pastoralism. Most hard data come from ILRI/FAO estimates, and combine figures for pastoralists with other livelihood systems. A lot of the literature originates from a fairly small community of experts associated with a few organizations: FAO, IFAD, IIED, ILRI, IUCN, ODI, and Tufts University. We reviewed this material and compared the results of our own research with it.

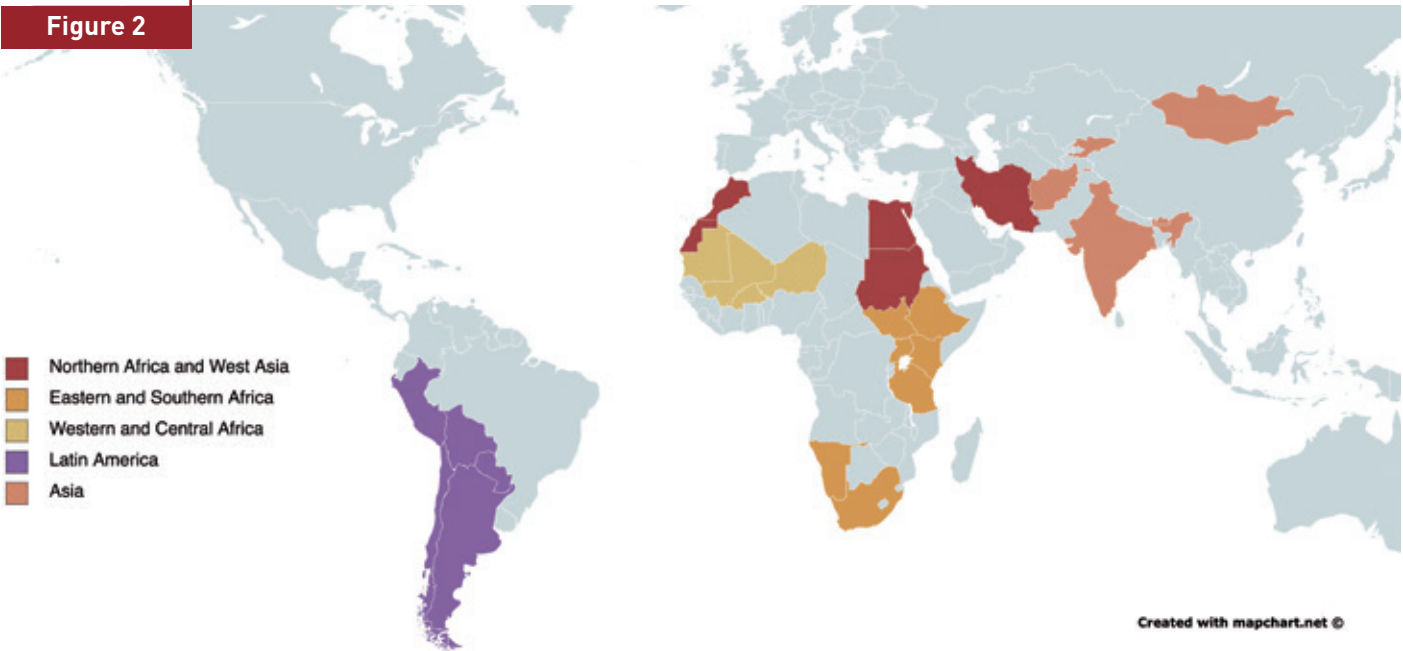
## Survey on the enabling environment and policies

We held surveys in 26 countries on the enabling environment and policies related to pastoralism. In each country, we questioned at least three well-informed interviewees on political integration, and at least three

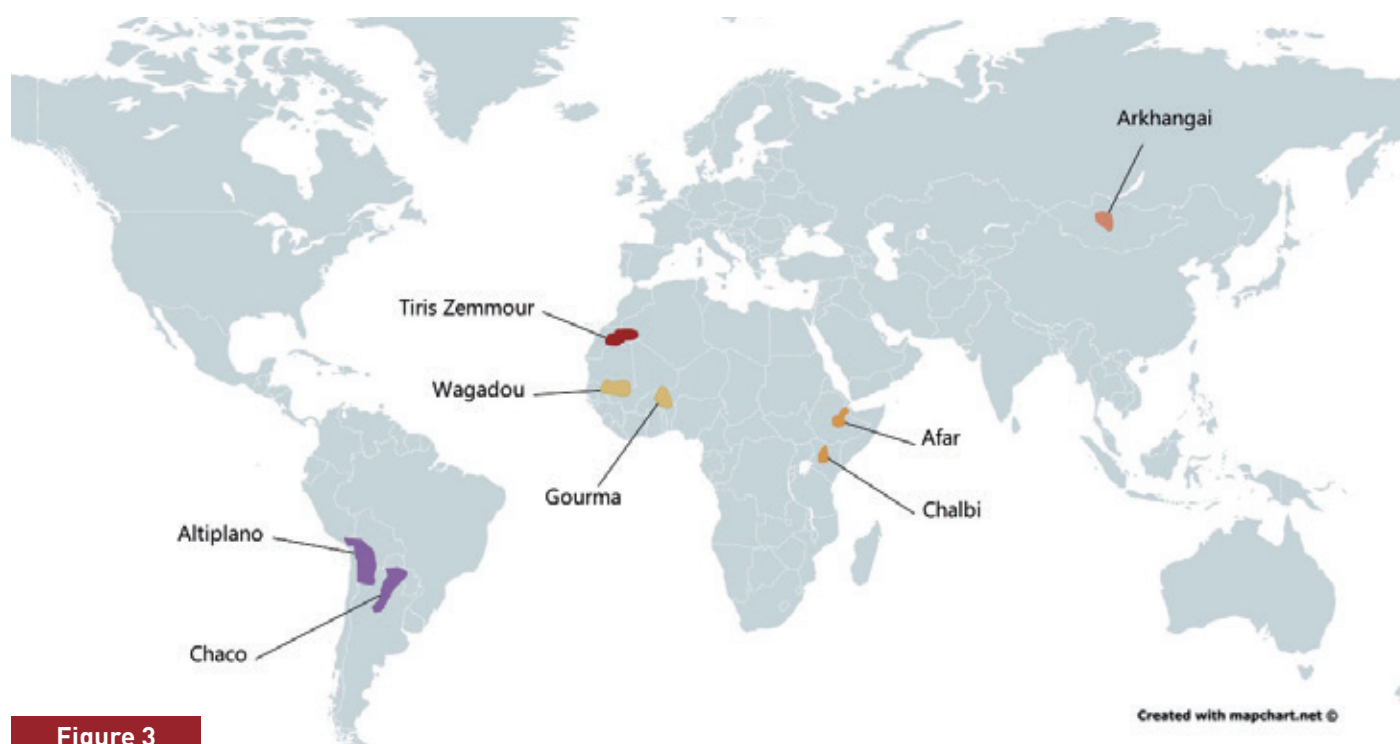
Table 2. Countries included in the survey on the enabling environment and pastoralist policies

	LATIN AMERICA	NORTHERN AFRICA AND WEST ASIA	ASIA	WESTERN AND CENTRAL AFRICA	EAST AND SOUTHERN AFRICA
Included in survey (26 countries)	Argentina, Bolivia, Chile, Paraguay, Peru	Egypt, Iran, Morocco, Sudan, Western Sahara	Afghanistan, Bhutan, India, Kyrgyzstan, Mongolia	Burkina Faso, Mali, Mauritania, Niger	Ethiopia, Kenya, Namibia, South Africa, South Sudan, Uganda, Tanzania

Figure 2





**Figure 3**

Hotspots selected for the surveys on pastoralist practices

on availability of services (enabling environment). The analysis covered about half the countries where pastoralism plays a significant role (**Figure 2, Table 2**). To select the target countries and territories, we identified all areas in Africa, Asia and Latin America where grassland-fed-livestock-based household incomes surpassed 50% of the overall community income, assuming that this is a limit between agropastoralists and pastoralists (Swift 2001).

This survey took place from October to December 2015. The survey enquired about policy measures that affect pastoralism: the availability of services and the institutional support received by pastoral communities. We also questioned specialists at the secretariat of the Intergovernmental Authority on Development secretariat, a trade bloc in Eastern Africa. In all we questioned 78 respondents on the enabling environment, and 51 about policies.

### Household surveys in pastoralist hotspots

In the same 26 countries, we identified those areas where livestock accounted for 75% or more of household incomes (we chose this figure to select pastoralists rather than agropastoralists, who earn more from other sources). We selected eight “hotspots” that

covered specific pastoralist territories: one or two in each of the five regions listed in Table 2. The eight hotspots were the Altiplano and Chaco in South America; the Arkhangai in Mongolia; Wagadou and East Gourma in the Sahel; Tiris Zemmour (the southern Atlas); and the Afar and Chalbi areas in Eastern Africa (**Figure 3**).

In each hotspot we conducted two surveys and a participatory mapping exercise in October–December 2015.

- **Survey of practices:** In each hotspot, we surveyed households along a transect through the entire territory. We selected households whose main livelihood was based on free-ranging herds and over 75% of whose income came from livestock.

The respondents included nomadic, transhumant and sedentary households, and they might share their surroundings with crop producers. We questioned a total of 315 households across the eight hotspots about their use of natural resources, herd size and market access, animal health services, adaptation to drought and climate change, nutrition and food security, information sources and social networks.

So we could analyse differences by age and gender, we tried to ensure that at least 30% of the respondents were women over 30 years old, 30% were men over 30, and 30%

were young people aged 18–30 (half women, half men).

- **Survey of leaders:** We interviewed 49 pastoralist leaders about the general practices in the area. This questionnaire covered general issues where it was not necessary to get responses from each individual.

- **Maps.** Community leaders drew maps showing the location and extent of the hot-spot, its settlements, dry- and wet-season grazing areas, water points, trade routes, and slaughter facilities.

## Survey limitations

We are aware of the limitations of these surveys. In some areas we were not able to interview enough women: overall, 43% of our interviewees were women, but in Tiris Zemmour only 20% were women; in Chalbi the figure was 30%. In Tiris Zemmour, Wagadou and Gourma we failed to reach our target for youth respondents, partly because relatively few young people in these areas are drawn to the pastoral life.

We needed to use the same survey instruments in different locations, but that meant

it was not possible to adapt them to the local situation. The tight timeframe meant we were able to test the questionnaires only in a few regions, and rapid

training of the interviewers may have led them to misinterpret some of the questions.

Our geographical coverage is not complete: we prioritized areas where VSF or its partners had some presence, and avoided those that are difficult to reach or face security problems. This provides important biases to the outcomes of the survey and a potential overestimation of pastoralists' integration to the overall society. Plus, collecting reliable data in pastoralist regions is very difficult. As nomadic population move around, mobility data are difficult to quantify and map. Many cross international borders and remain invisible to officialdom. Pastoralists are highly adaptable, so their circumstances change a lot from year to year and season to season. To really meas-

ure people, herds, markets, we would need longitudinal surveys over time. In conclusion, we recognize that this survey has merely captured a snapshot of a particular moment, and we invite the readers to approach this report with this mind-set.

## Regional consultations

With support of the International Fund for Agricultural Development (IFAD), in January 2016 we organized five consultation meetings in preparation of the Special Session on Pastoralism, which took place on 12–13 February 2016 in Rome as part of the Farmers Forum. These consultations encompassed most constituencies representing organizations of pastoralists and livestock keepers from three continents. In total, over 200 participants from 38 countries took part:

- **Western and Central Africa:** 7–9 January 2016 in Bamako, Mali, with 85 delegates from Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Mali, Mauritania, Niger, Nigeria and Senegal.

- **North Africa and West Asia:** 14–16 January in Hammamet, Tunisia, with 39 delegates from Algeria, Egypt, Iran, Jordan, Mauritania, Morocco, Saudi Arabia, Sudan, Tunisia and Turkey.

- **Latin America:** 17–19 January in La Paz, Bolivia, with 30 delegates from Argentina, Bolivia, Chile, Paraguay and Peru.

- **Eastern and Southern Africa:** 21–23 January in Nairobi, Kenya, with 28 delegates from Ethiopia, Kenya, Namibia, Somalia, South Africa, South Sudan, Tanzania and Uganda.

- **Asia:** 25–26 January in Hustai National Park, Mongolia, with 30 delegates from Afghanistan, India, Kyrgyzstan, Mongolia and Russia.

Each of these meetings produced a statement on priorities for investment in pastoral development, along with recommendations for policy dialogue and partnership with development organizations. Selected delegates from the regional meetings also attended a special session of the Farmers Forum on pastoralism, which produced a global statement. All statements and other outputs from the regional consultations are available on the website of VSF International ([vsf-international.org/consultations-pastoralism](http://vsf-international.org/consultations-pastoralism)).

**Over 200 pastoralist representatives from 38 countries took part to regional consultations**

## COUNTING HERDERS

There is no reliable information on the number of pastoralists or agropastoralists worldwide. Estimates are based on different definitions of pastoralism, and are highly speculative and based on weak and old estimates; they vary from 22 million to over 200 million, a 10-fold difference (Sandford 1983, Swift 2001). Sandford (1983) estimated that there were at the time around 17.3 million nomadic pastoralists in Africa, 3.4 million in the Middle East and South Asia, and no more than 2 million in Central Asia, or 22.7 million in all. More recent estimates, with a few exceptions such as Iran and Mongolia, are much larger, and sum to about 66 million globally. In particular, in the Horn of Africa (excluding Somalia), a recent estimate was 24.2 million: 40% more than Sandford's estimate for the whole of Africa.

Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it.

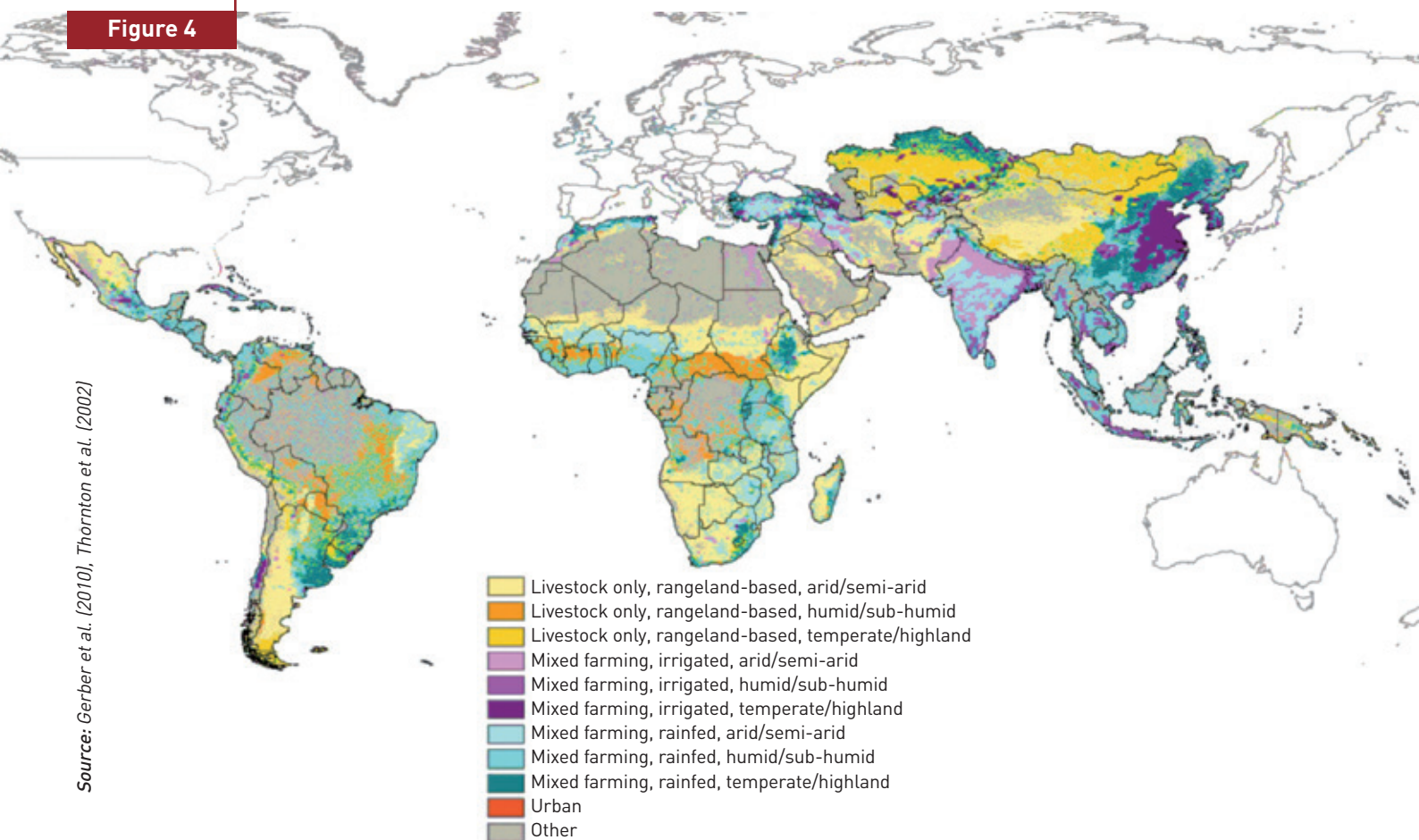
*(H. James Harrington, Author)*

Spatial  
distribution of  
agro-ecological  
zones in the  
developing  
world

Estimates of the numbers of pastoralist and agropastoralists and their livestock are usually based on GIS modelling. The most quoted internationally comparable source is compiled by the International Livestock Research Institute (Thornton et al. 2002). This is the only dataset available which makes a global comparison, but it does not distinguish between ranching, pastoral and agropastoral systems and excludes Europe, North America, Russia, and Australia (**Figure 4**).

However, the number of people associated with "grassland-based production sys-

**Figure 4**



Source: Gerber et al. (2010), Thornton et al. (2002)



tems” is only a very rough estimate of the total number of pastoralists and agropastoralists. For Africa alone, the African Union (AU 2010) estimated that 268 million pastoralists living on 43% of Africa’s land mass contribute between 10 and 44% of the GDP in the countries they live in. In a rough exercise Nikola Rass (2006) disaggregated the estimates of populations related to grass-based livestock systems (Thornton et al. 2002) and excluded people associated with ranching. She estimated there were 50 million pastoralists and agropastoralists in sub-Saharan Africa, the largest share worldwide. No estimate is available when it comes to ethnicity and cultural identity.

## DEFINING PASTORALISM

We can define pastoralism in various ways: by the production system, the type of land used, ethnicity or cultural attributes. For various reasons, each of these on its own is unsatisfactory.

## Production system

According to FAO, using a broad definition of “extensive livestock production in the pastures”, pastoralism is practised on 25% of the world’s land area. Although many pastoralists, especially in the Americas, do not identify themselves as such, and their identity relates to other, ethnic, factors, pastoralists

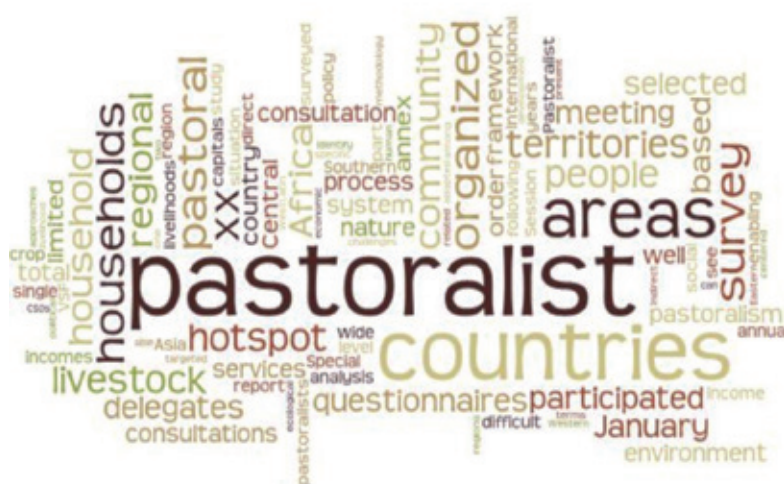
could be defined as “people who receive more than 50% of their income from livestock and livestock products derived from rangeland resources”. That contrasts them with agropastoralists, who derive less than 50% of their income from animals and animal products and most of the remainder from cultivation (Swift 2001, Thornton 2002). But although rearing livestock is their main activity and source of income, pastoralism cannot be defined solely as a production system, as we need to take into account as well other important socio-cultural and ecological dimensions.

Seré and Steinfeld (1996) categorize pure livestock systems into either landless or rangeland-based additional to their agro-ecological zone, and thus combine pastoralist and ranchers. Pastoralists and ranchers share generally the same agro-ecological zones, but belong to different socioeconomic categories. Pastoralism typically uses common property and is labour-intensive but input-extensive. Ranchers, on the other hand, use less labour but more capital; they tend to make less efficient use of the land resources but achieve higher productivity per animal (Seré and Steinfeld 1996).

## Land type

Pastoralists live in areas where extensive livestock farming is the most appropriate use. The potential for crop cultivation is marginal because of low, variable and unpredictable rainfall, poor soil quality, rocky or steep terrain, high altitude, or extreme temperatures (tundra, alpine areas, steppes, semi-desert and deserts). Pastoralists have developed ways to use land in fragile ecosystems and to maintain ecological stability since time immemorial (Davies 2015). They select their livestock species and breeds depending on the climate, environment, water, soil and fodder quality, accessibility, disease prevalence and other risk factors, but also based on cultural heritage.

**Rangelands** are not easily defined, since they overlap greatly with other ecosystems (such as forests), making it hard to know their extent. Many rangelands are drylands, although temperate and mountain rangelands share many characteristics. Lund (2007) cal-





culated that the proportion of pasture area may vary between 18% and 80% of the world's land surface, depending on the more than 300 different published definitions and the method of measurement. This vagueness is partly because no organization is responsible for a continued audit, unlike for forests, for example. In consequence there is no official or uniform definition, since definition and measurement are intrinsically connected.

Depending on how they are defined, rangelands cover about half of the world's land surface, support nearly one-third of the world's population and provide multiple ecosystem goods and services, including food and fibre production, water-resource protection, and biodiversity. Providing such goods and services in the future will be a fundamental challenge, especially under the pressures of population growth, economic and social uncertainty, and climatic change (FAO et al. 2013, Sayre et al. 2013, United Nations 2013).

**Drylands** are easier to define, although they do not account for all pastoral systems. They are best defined as areas below a certain ratio of total precipitation to total potential evapotranspiration. About 40% of the world's land is considered as drylands (according to UNCCD), and they are inhabited by more than 2 billion people, or nearly 40% of the world's population. Drylands are characterized by a high degree of uncertainty and variability in the amount and distribution of rainfall between years. Erratic rainfall leads to unpredictable pasture growth. It is this unpredictability as much as the low level of rainfall that gives the drylands their charac-

teristics: the growth of pasture and browse varies greatly between years and locations, and pastoralists adapt accordingly. They follow an opportunistic management strategy: moving to where the resources are when they are available, and varying their herd sizes to exploit the resources from one year to another. In most dryland areas there are patches of resources that are comparatively stable, usually along rivers or lakes where water is available throughout the year.

## Culture and ethnic identity

As stressed by pastoralists representatives at the 2016 Farmers' Forum in Rome, "Pastoralism is more than livestock production; it is a way of life, a culture and an identity" (Statement of the Special Session of Farmers' Forum 2016). Besides animal production and the territorial dimension, a number of cultural, social and ecological factors constitute the basis of pastoralists' livelihood.

The definition of pastoralism as an ethnic identity finds its origin in UN Convention No. 169 (1989) on Indigenous and Tribal Peoples. This convention led to the creation of the UN Permanent Forum on Indigenous Issues (2000), the establishment of a UN Special Rapporteur on the Rights of Indigenous Peoples, the adoption of the UN Declaration on the Rights of Indigenous Peoples by the General Assembly (2007), and the creation of the United Nations Human Rights Council on the Rights of Indigenous Peoples. In 2009, IFAD adopted a Policy on Engagement with Indigenous Peoples, and it has inherited from the World Bank the Indigenous Peoples Facil-

ity, which allows targeted funding to ethnic initiatives. In 2011, the Indigenous Peoples Partnership (UNIPP) and the FAO Policy on Indigenous and Tribal Peoples were adopted, creating of a platform for exchange on the rights of pastoralists (FAO 2011b).

The legal framework for the rights of minorities and the protection of ethnic identity has significantly strengthened the position and representation of pastoralists in global and sub-national platforms. It is easier for pastoralists to gain international support and a voice in national policymaking as a recognized minority than, for example, as practitioners of a particular production system. The only global social movement that represents the interests of pastoralists worldwide, the World Alliance of Mobile Indigenous People (WAMIP), defines itself through ethnicity.

Nevertheless, not all pastoralist communities are minorities or indigenous peoples, so using this as the basis of a definition excludes a significant proportion of pastoralists worldwide.

## An inclusive definition

Here is an attempt at an inclusive definition of pastoralism that combines elements of the production system, land type and cultural views:

**Pastoralism is a livelihood system based on free-grazing animals that is used by communities in marginal areas.**

**The land may be marginal for various reasons, including poor water supply or soil quality, extreme temperatures, steep slopes and remoteness.**

**Pastoralism enables communities to manage their resources in a sustainable, independent and flexible way. It is marked by rights to common resources, customary values and ecosystem services.**

## SUSTAINABILITY AND RESILIENCE

Many forms of pastoralism exist. All are highly adapted to their natural, political and economic environments, so are sustainable, help their practitioners avoid risks, and have advantages over alternative types of land use. Below we discuss various components of sustainability and resilience (Rota et al. 2009).

### Mobility

Mobility is a key common feature of pastoralism. Indeed, it is vital for the sustainable use of marginal rangelands. Rather than bringing resources to the animals (as in other types of livestock-raising), pastoralism moves the animals to whatever resources are available. Such mobility enables pastoralists to benefit from seasonal pastures, and provides access to water, salt patches (critical for animal health) and other resources and services. It also enables them to obtain other types of food and to control diseases.

We can distinguish between various categories of mobility (Ruthenberg 1980, Dixon et al. 2001):

- **Nomadism.** This is when mobility is high and movements follow irregular patterns. Nomads have no permanent place of residence and do not cultivate crops.

- **Transhumance.** A permanent residence exists, and the herders send their animals to distant grazing areas, usually on a seasonal cycle, for example between winter and summer pastures, dry and rainy seasons, or high and low altitudes.

- **Sedentary** including **semi-nomadism** where people have a permanent place of residence and practise supplementary cultivation, but where for long periods the animal owners travel to distant grazing areas and **partial nomadism** where livestock keepers live continuously in permanent settlements and have herds that graze in the vicinity, or **sedentary animal husbandry** in which animals remain on the landholding or in the village throughout the year.



**C** = Bactrian camels, **D** = Dromedaries, **G** = Goats, **S** = Sheep, **Y** = Yaks, **Ct** = Cattle, **H** = Horses

**CAPITALS** = major herd species, **xy (subscript)** = minor species. **Special instances:** ● Cattle/buffalo herders, ■ goat herders, ▲ donkey herders

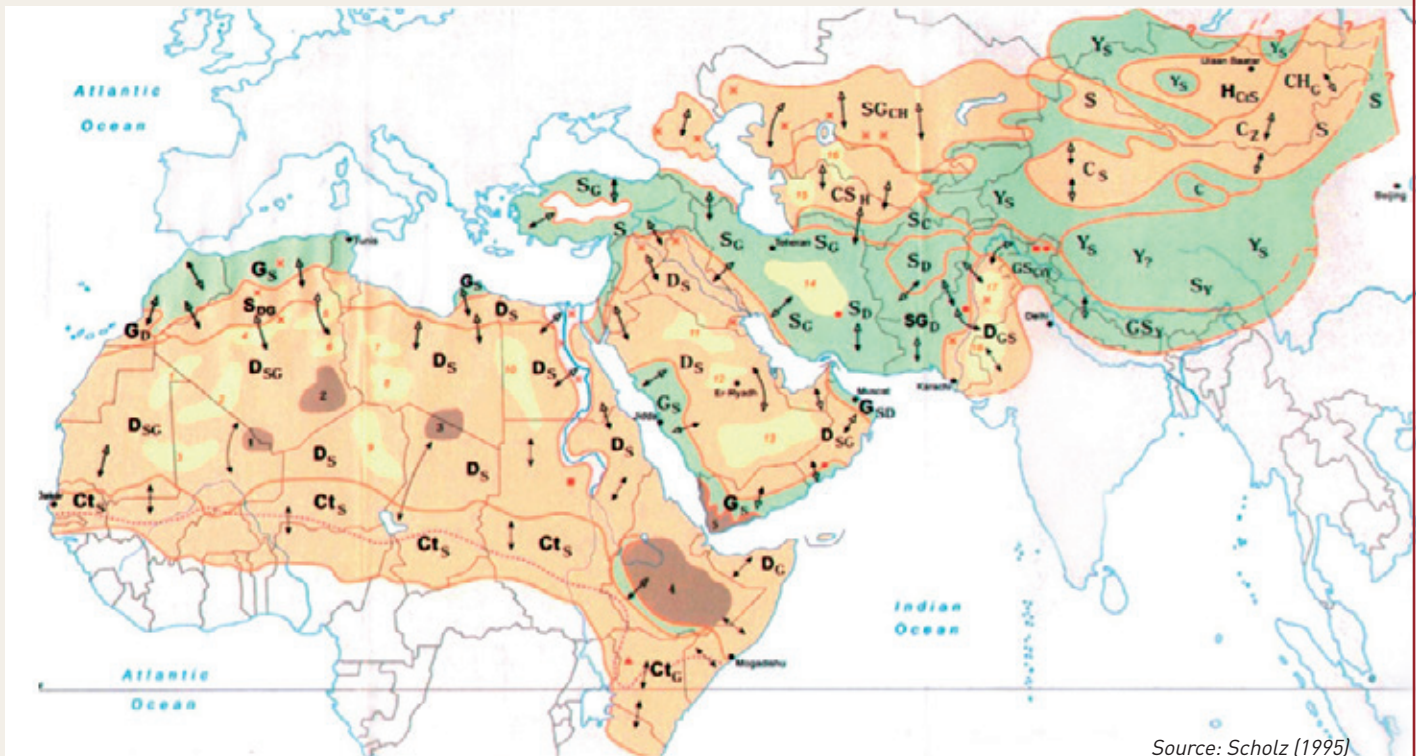
✕ Settlements of nomads in the 19th C. **Direction of migration:** ■ vertical, ■ horizontal

■ **Deserts:** 1 Erg Iguidi, 2 Erg Chech, 3 Azauad, 4 Great Western Erg, 5 Great Eastern Erg, 6 Hamada of Tinghert, 7 Edeyen of Ubari, 8 Edeyen of Murzuk, 9 Tenere, 10 Libyan, 11 Nefud, 12 Nejd, 13 Rub al Khali, 14 Lut, 15 Karakum, 16 Kyzylkum, 17 Thal, 18 Thar

■ **Mountains:** 1 Adrar, 2 Hoggar, Tibesti, 4 Ethiopian Highlands, 5 Yemen Highlands

.... Northern limit of tsetse fly, ---/— Unproven/proven distribution

↔ Approx. direction of migration between winter (▲) and summer (△) pastures. ....→ episodic non-directional migration.



Source: Scholz (1995)

**Figure 5**

Main species and migration patterns in northern Africa and western and central Asia

As implied in the list above, there are many types and degrees of pastoral mobility. Movements can vary depending on the ambient conditions and the situation of a particular household. Movements may be highly regular, follow a seasonal pattern in clearly defined corridors to well-defined pasture areas that have been established for centuries, or they may be relatively random, opportunistically following rains and returning rarely to the same land. They may aim to access specific resources (such as salt pans or seasonal pastures), evade stress and risks (seasonal tsetse infestation, conflicts), be driven by periodic opportunities (markets, political events) or to manage uncertain of pasture availability.

One can distinguish between vertical and horizontal mobility.

● **Vertical mobility** is the regular movement of herds from valleys to mountains in regions such as Turkey, the Iranian plateau,

North Africa, the Himalayas, Kyrgyzstan and the Andes. It usually takes place between established points along ancient routes. There is a strong association with higher-rainfall zones; if there is enough rain to guarantee forage, herders can afford to use particular sites regularly, and to build houses there.

● **Horizontal mobility** is more opportunistic; it tends to follow the rain. Movement between fixed sites may develop over a few years, but it is often disrupted by climatic, economic or political change.

Scholz (1995) provides a thorough inventory of nomadic and transhumance movement patterns in northern Africa and western and central Asia, highlighting these types of patterns (**Figure 5**).



## Livestock adaptation and diversification

All over the world, pastoralists have developed resilient grazing systems, permitting relatively high human populations on rangelands that have very variable productivity. To survive in this difficult environment, pastoralists keep a mixture of species and various traditional breeds. The species depends on the local climate, environment, water access and other resources. They include cattle, camels, goats, sheep, yaks, horses, donkeys, llamas, alpacas and reindeer. By keeping more than one species, pastoralists can produce a wider variety of products and make use of available forage resources in different seasons or in times of crisis. Sheep and goats are the most numerous animals; they reproduce quickly and are key to rebuilding a herd decimated by drought.

Within each livestock species, herders maintain different genotypes, selected for their ability to survive and produce in the prevailing conditions. Pastoralists are responsible for breeding many documented livestock breeds, as well as numerous breeds that are as yet undocumented. They have developed these breeds without the use of herd books or formal breeding companies (Hoffmann, et al. 2014). Without such breeding, most domestic livestock would be not far from their original wild forms. A combination of environmental stress and careful selection of breeding stock has eliminated weaker individuals and generated healthy, hardy breeds adapted to local circumstances. Pastoralists' traditional

knowledge and skills on breeding mean they can be seen as “gene keepers” (Asian consultation, statement and recommendations to IFAD, 2016).

## Flexibility and risk management

Maintaining as large a herd as possible helps ensure the survival of the herd despite losses during droughts or disease outbreaks. It allows pastoralists to store food and accumulate marketable assets when the going is good, and dispose of those assets when required. The herders make every effort to ensure the most valuable animals survive, while using the less valuable ones for food.

Splitting a herd into smaller groups is a common way to reduce competition among the animals for feed and water and to optimize grazing. Herders entrust some of their animals to friends, relatives or hired workers, who care for them at a distant location. This helps all involved, and is especially important during a crisis.

Pastoral systems rely on the movement of the herd through a diverse landscape. The pastures are very diverse, making it possible to optimize resources and conserve the ecosystem. Herders keep their animals out of certain areas so they can be grazed during the dry season; they use the small patches of wetlands that dot the rangelands judiciously, and they often have agreements with crop growers to graze the stubble after the harvest: suppressing weeds and fertilizing the soil with the animals' dung.

## Customary institutions and traditional knowledge

Pastoralists have strong traditional institutions that regulate the use of natural resources, manage risks, conserve and protect resources and assets and promote community operations. These institutions are especially important in times of stress. They help manage common lands and enable pastoralist communities to avoid what Hardin (1968) calls the “tragedy of the commons” – the overexploitation of common property. Furthermore, pastoralists' reliance on social capital and their mutual support ensure that in

times of emergency, food, work and money are redistributed on the basis of reciprocity (Rota et al. 2009).

## Trade

Pastoralists have always traded livestock or animal products for things they cannot produce themselves – such as cereals and household items. A growing urban demand for livestock products means that pastoralists increasingly produce for the market. Sheep and goats are important here: they reproduce quickly and can be sold easily. Selling one or two small ruminants means it is not necessary to part with a more valuable larger animal.

## Biodiversity conservation and landscape formation

Traditional livestock production systems have formed entire landscapes. Examples of such landscapes can be found in western Asia, where sheep and goats were first domesticated about 10,000 years ago, as well as heathlands, dry grasslands and sub-alpine dwarf shrub landscapes. Pastoralist livestock create and maintain mosaic landscapes and mini habitats that make an important contribution to the conservation of biodiversity. They connect ecosystems by transporting seeds; trampling and grazing improve the water-holding capacity of grassland, reduce the risk of forest fires, and restore and maintain soil fertility through manure and nutrient cycling.

## REGIONAL DIVERSITY

Pastoralism differs from region to region and from one landscape to another. Blench (1999) listed the main species and trends in each region (**Table 3**). He saw a general tendency for contraction, except in Central Asia and Circumpolar zones, where expansion was fuelled by the de-collectivization after the collapse of the Soviet system.

## Eastern and Southern Africa

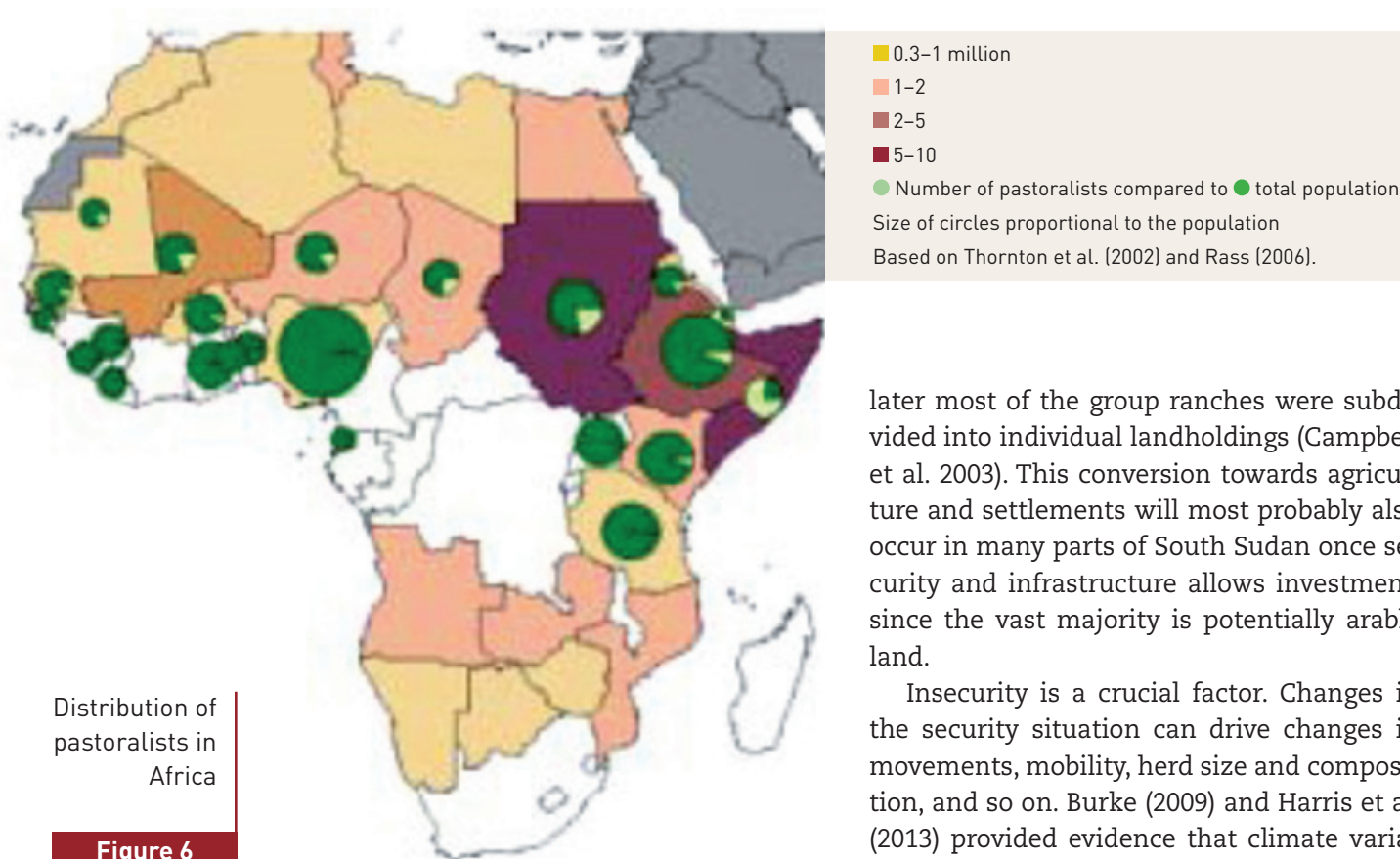
Pastoralism occurs in most countries in Africa, with highest numbers in Eastern Africa and the Sahel (**Figure 6**). Sudan and Somalia have each 7 million pastoralists and agropastoralists, followed by Ethiopia with 4 million. In Somalia pastoralists and agropastoralists represent around 90% of the total population, while they account for 23% in Sudan.

Pastoralist livelihoods and way of life are increasingly threatened, according to the statement from the Eastern and Southern Africa regional consultation that contributed to this report (Eastern and Southern Africa statement and recommendations to IFAD, 2016). The range of challenges include climate change, conflict, investment by multinationals, big infrastructure projects, encroachment, the exclusion of women from decision

**Table 3. Regional zonation of pastoral systems**

ZONE	MAIN SPECIES	STATUS
<b>Sub-Saharan Africa</b>	Cattle, camel, sheep goats	Declining due to advancing agriculture and increasing insecurity of most part of rangelands
<b>Mediterranean</b>	Small ruminants	Declining due to enclosure and advancing agriculture
<b>West Asia and South-Central Asia</b>	Small ruminants	Declining in some areas due to enclosure and advancing agriculture
<b>India</b>	Camel, cattle, sheep, goats	Declining due to advancing agriculture, but peri-urban livestock production expanding
<b>Central Asia</b>	Yak, camel, horse, sheep, goats	Expanding following de-collectivization
<b>Circumpolar</b>	Reindeer	Expanding following de-collectivization in Siberia, but under pressure in Scandinavia
<b>North America</b>	Sheep, cattle	Declining with increased enclosure of land and alternative economic opportunities
<b>Andes</b>	Llama, alpaca	Contracting llama production due to infrastructure expansion and modern livestock production, but expansion of alpaca production





making, unfavourable policies and approaches to ancestral lands.

About two-thirds of the area of **Eastern Africa** is inhabited by pastoral groups, with an estimated 384 million cattle, 88 million goats and 74 million sheep – between 40 and 50% of the numbers for each type of livestock.

Since the 1900s the frequency and distances of herd movements in the region have declined, and many pastoralists have become settled. Settlement is caused by a variety of factors: long droughts, encroachment by other land uses (Mkutu 2004), a lack of infrastructure and social services, disease-control policies (Morton 2001), a breakdown of customary pastoral social hierarchies, and insecurity. Governments sometimes promote settlement to intensify and commercialize animal production, provide cheaper meat to urban areas, or to facilitate social control, administration, and the delivery of social and livestock services (Pratt et al. 1997). Governments have also forced pastoralists to settle, as in Kajiado district in Kenya and other Maasai pastoral areas. There was a shift in the early 1970s from free grazing to group ranches with access rights limited to group members, but

later most of the group ranches were subdivided into individual landholdings (Campbell et al. 2003). This conversion towards agriculture and settlements will most probably also occur in many parts of South Sudan once security and infrastructure allows investment, since the vast majority is potentially arable land.

Insecurity is a crucial factor. Changes in the security situation can drive changes in movements, mobility, herd size and composition, and so on. Burke (2009) and Harris et al. (2013) provided evidence that climate variability is closely related with conflict and wars. The El Niño/Southern Oscillation had a role in 21% of all civil wars since 1950 (Hsiang 2011). With the expected rise of the temperature, conflicts in Africa are forecast to increase by 54% between 2010 and 2030 (Burke 2009). Insecurity, wars and civil unrest that displace large numbers of livestock and people. Many pastoralist areas of Eastern Africa are already subject to conflict. In most cases, however, pastoralism tends to stabilize large, remote areas because it creates a presence and permits monitoring and governance.

Another major trend is the increasing role of absentee investors or owners. Wealthy urbanites, who may have roots in pastoralist communities, invest in livestock. They employ pastoralists, often relatives, to take care of their animals, and often restrict the herd movements to ease control. This creates an income from communal land for urban residents. But the owners, not the rural community, benefit from the income. There is little resistance as local people are often proud if the lawyer or doctor originating from the community still keeps livestock.

Other factors that affect the production capacity of pastoral systems and threaten livelihoods include:

- The changing agroecological conditions

and physical characteristics of range resources, including climate change

- Population growth that puts increased pressure on resources and makes herds smaller
- Rapid urbanization and encroaching economic interests
- The lack of infrastructure such as schools, hospitals, veterinary services, roads and police posts
- Changes in rights to access specific areas at different times
- Political marginalization of pastoral interests in framing national policies
- Transboundary diseases that threaten livestock populations

In **Southern Africa**, pastoralism accounts for about 60% of the national cattle herd in South Africa. In Namibia, pastoralism dominates the livestock sector. It contributes 28% of the agricultural GDP and 3% of overall GDP. Namibian pastoralists hold 80% of the national cattle herd, which supply about one-third of the income of traditional households. Still, most pastoralist livestock are concentrated in one area and their movement is blocked; most of the land is still under ranching by the descendants of settlers.

Pastoralism plays a less important role in the economies of Lesotho, Mozambique, Zimbabwe and Angola. Colonial administrations allowed traditional authorities to coexist with Western-style administrations. Pastoralists remained in their ancestral homelands where resources were held in common and tenure

was shared according to traditional rules and conflict-resolution systems. The British policy of indirect rule allowed chiefdoms who ruled pastoral communities to keep a large percentage of tribal land as communal pastoral land.

## West and Central Africa

West Africa has fewer pastoralists and livestock in both absolute and relative terms than Eastern Africa. According to FAO (Otte and Chilonda 2002), West Africa accounts to over 65 million cattle and 160 million sheep and goats. In Sahelian countries it is estimated that 70 to 90% of cattle and 30 to 40% of small ruminants are managed under transhumant pastoral systems (CEDEAO and CSAO/OCDE, 2008). Another quarter of the area is managed under agro-pastoral systems containing larger shares of the West African livestock. Niger has 1 million pastoral cattle, 6 million goats and 4 million sheep, while Mauritania has 1 million pastoral cattle, 4 million sheep and 6 million goats.

The Sahel is the most important pastoralist area, covering about 5.7 million hectares between the Sahara and the wetter savannah to the south. About 13% of this area's 58 million inhabitants are nomadic; they include the Tuareg, Fulani, Peuhls, Maures and other ethnic groups. Pastoralists are for a small fraction of the population but manage a large share of national herds (Rass 2006).

Livestock production accounts for 25% of the GDP of countries such as Burkina Faso, Mali, Mauritania, Niger and Chad. It provides employment to 80% of the population, produces meat and other commodities, and provides draught power. The sector also generates tens of billions of Central African francs in terms of value addition in coastal countries such as Benin, Côte d'Ivoire and Togo.

Traditional low-input transhumance systems are common, though semi-sedentary agropastoralists and nomads also exist (Ly 2010). Pastoralists often cross borders to reach water points, and gatherings such as the cures salées in Niger, Burkina Faso, Mauritania, and Mali are well known.

According to Brooks (2006), pastoral livelihoods in the Sahel are based on traditionally



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negotiated, non-exclusive access to water and reciprocal land-use agreements between pastoralists and farmers (reciprocal agreements are described in human capital). However, the expansion of agriculture and a shift towards agro-nomadic grazing are pushing into pastoralists marginal areas (Dong 2011). Pastoralism and ranching contribute to regional integration policies, productive systems and markets. While the Sahelian countries produce a surplus of animal products, the coastal countries do not have enough.

Governments in **West Africa** have passed laws to protect pastoral land and enhance livestock mobility. For example, Guinea, Mauritania, Mali, Burkina Faso and Niger all have legislation in support of pastoralism. These laws were motivated by a desire to address the growing problem of conflict between pastoralists and farmers. They have many positive features (AU 2010):

- Protection of mobility. The Pastoral Charter in Mali and the Pastoral Code in Mauritania have strong provisions that protect mobility.
- Priority use rights over resources. The Rural Code in Niger recognizes that residents are “primary users” and have priority rights of access and use.
- “Productive” pastoral land use. The Pastoral Charter of Mali from 2001 defines the productive use of pastoral land in a positive way.

Despite this, pastoralists still do not benefit enough from national and regional policies, public funding or development aid. Their needs in terms of infrastructure, services tailored to mobility (advisory support, veterinary

services), basic services (health, education, drinking water) and security are very far from being met. The most important challenges include (Recommandations pour le FIDA concernant le pastoralisme en Afrique de l’Ouest et du Centre, 2016):

- Implementing a common vision between the Sahelian and coastal countries and between pastoral civil society and other actors for the development of pastoral livestock
- Improving knowledge management systems in pastoral systems, inter connection and information devices actors
- Enhancing the security of people and goods in pastoral areas.

Pastoralism also plays a major role in livestock production of **Central Africa** particularly in Chad (27% of GDP), Cameroon (13%) and the Central African Republic (9%). Pastoral communities are poorer than the national average. Livestock and animal products are traded across borders to countries further south. Chad sells most of its cattle on the hoof to Nigeria, a populous country with a large market.

Central Africa also has examples of supportive policies for pastoralists. Mobile schools in Chad are designed to educate the children of pastoralists during transhumance. Cameroon has appointed the sons and daughters of pastoralists to positions where they design and implement livestock development measures and promote the emancipation of pastoralists.

The Central African Republic has recognized the importance of pastoralists for the national economy by allocating land and providing appropriate veterinary services to pastoralist communities (AU 2010).



## North Africa and West Asia

Pastoral communities in this region include the Bedouins, Kurds, Berbers, Tuareg and Western Saharans, who are minority groups in the countries they live in. The pastoral lifestyle, together with Islam, are the main factors tying together groups divided by national borders or clan allegiances.

North Africa and West Asia have vast areas of steppe and desert where pastoralism used to hold sway. But this has changed with social and economic transformations, a decline in mobility and traditional organizations, a rise in settlements, inequalities among livestock holdings, the privatization of common lands and the development of barley cropping and olive plantations. Many pastoralists have dropped out and migrated to the cities or other countries. Recent crises in the region have exacerbated this trend. Many of those who still raise livestock now fatten animals using supplementary fodder.

In terms of rangeland area, the biggest pastoral countries in **North Africa** are Morocco and Algeria; 40% of their territory, or 20 million ha, is steppe (Dutilly-Diane 2006). Tunisia follows with 25%. Egypt and Libya are largely desert, with 1–2% rangelands, but even so, Libya is so big that in absolute terms it has the same area of rangelands as Tunisia.

Much of these marginal drylands are home to pastoral communities. In Algeria, livestock contributes half of the agricultural GDP. This demonstrates the importance of pastoralism in this part of the continent (AU 2010).

Rangeland degradation is a big problem: it has been estimated that between the mid-1970s and the mid-1990s, the area of rangeland fell by 10% in Morocco and Tunisia and 14% in Algeria (Abdelguerfi et al. 2000). The productivity of the rangeland is also falling.

Nedjraoui (2004) shows that forage production in Morocco now is only 30% of its 1968 level.

**West Asia** is a centre of the domestication of livestock. Rangelands (steppe, desert, savannah and mountains) are the largest land-use type in the region. According to FAO data, grasslands cover 504 million ha (excluding Pakistan and Turkey). They are by far the cheapest source of feed. In some countries mountains are important for grazing transhumant livestock during the summer and early autumn. Forests are also used for grazing, either year-round or during the dry season when grasses are dry and low in nutrition.

Pastoralism is far from a government priority in North Africa and West Asia. State intervention relates mostly to concerns for the safety of pastoral products and resource management rather than to pastoralists as citizens. Where the government provides services such as extension, animal health and training, they are often inadequate and poorly tailored to the local setting.

It is necessary to improve basic services and market opportunities if rangeland management is to be made sustainable. This requires more skilled, organized and empowered pastoral communities, along with a state commitment to more decentralized and accountable decision-making. Great potential exists to develop dialogue and engagements between civil society and the authorities, which tend to be poorly represented in pastoralist areas (North Africa and West Asia recommendations, 2016).

Pastoralism in the region is heavily affected by a number of trends:

- The Mediterranean is especially exposed to climate change and desertification (IPCC 2014). Rainfall is becoming more erratic and extreme weather such as severe drought and flooding more common. In many areas the water table has sunk and traditional wells have run dry.

- The population has grown rapidly; people under 30 now make up about 70% of the population in most countries (Euromonitor International 2012). That exacerbates the imbalance between the demand and the natural resource base in countries that have long been food importers.



- Conflict and insecurity represent affect Syria, Sinai, the Sahara and Kurdistan. The presence of weapons (Sudan) and landmines (Western Sahara) as well as military control pose further risks.

- The region is exposed to trade and cultural exchange with neighbouring Europe, with farming in countries such as Turkey and Morocco reshaped to serve EU markets. Migration to Europe has increased in recent years.

- Healthy, sustainable pastoralism provides labour and income in remote, marginal areas. Keeping rangelands inhabited, productive and secure helps reduce banditry, trafficking and insurgency. It is important to sustaining the pastoral economy and civil society and to boost the image of pastoralism to make this livelihood attractive.

International organizations are beginning to acknowledge these issues. Support for structural development in pastoralist regions could help stabilize the areas affected by conflict. Enough land exists that could be utilized in an appropriate way if insecurity problems can be solved.

## Central, South and Northern Asia

**Central Asia** has about 250 million hectares of pasture, including parts of Russia, Mongolia and China and more than half of Kazakhstan, Uzbekistan and Kyrgyzstan. The main land use in this area used to be extensive migratory livestock production, often across porous borders (Suleimenov and Oram 2000). In Kazakhstan and Kyrgyzstan, rangelands cover almost 90% of the total agricul-

tural area; in Tajikistan, just under 70%. Most of Kazakhstan's rangeland is arid or semi-arid plain, while Kyrgyzstan and Tajikistan it is in semi-arid mountains (Kerven 2011, Kerven 2006, Fitzherbert 2000).

Pastoralist livelihoods based on yaks, camels, horses, sheep, and goats are expanding as a result of de-collectivization (Gerber et al. 2010, Table 4). Major threats include the disruption of migration routes, the promotion of mining and associated land acquisitions, and land degradation triggered by inappropriate land uses.

Central (and Northern) Asia has a relatively small, mobile and highly specialized pastoral population. Crop-growing communities are rare in pastoral regions; where they exist, such as in Inner Mongolia (China), they are relatively new. Pastoralists have long, extensive trade relations with neighbouring farming communities. An important difference between Asian and African pastoral circumstances is its political economy: in Inner Mongolia, Mongolia and Kazakhstan, socialist regimes strongly promoted sedentarization and collectivization. The state subsidized feed, veterinary care, transportation and marketing (Jenet 2006, Ikeya and Fratkin 2005). After the collapse of the Soviet Union in the early 1990s, state-managed mobile systems were changed to common-property regimes, and more recently to leased or privatized systems (Jenet 2006, Robinson et al. 2011). While the collapse of the labour market in the towns created "new pastoralists", a wave of privatization transferred land rights from pastoral cooperatives to wealthy individuals and groups, marginalizing the poorest part of the population and increasing uncertainty over access to resources and the feasibility of mobile pastoralism (Nori et al. 2005, Ikeya and Fratkin 2005). Such political reforms and population growth have led to massive rangeland degradation and rising carbon dioxide emissions (Chuluun and Ojima 2002, Dong 2011).

The Qinghai Tibet plateau in western China covers 2.5 million km<sup>2</sup> and has a cold, dry climate. About 70% is alpine grasslands, pastures, shrub vegetation, steppe, and desert. Nomadic pastoralism is the main land use, though agropastoralism exists in some areas. The main livestock breeds are yaks (about 13



Table 4. Significance of pastoralism to selected Asian countries

COUNTRY	CONTRIBUTION TO NATIONAL ECONOMY
<b>Pakistan</b>	Livestock sector produces almost half the agricultural GDP. About half the meat market is supplied by small ruminants from pastoral or agropastoral systems
<b>Mongolia</b>	Pastoralism accounts for 1/3 of the GDP and is the second-largest source of export earnings (21%)
<b>Iran</b>	Mobile pastoralism employs for only 2% of the entire population yet contributes 14% of Iran's milk and 17% of its meat.
<b>Kazakhstan</b>	The livestock sector, predominantly found in the drylands, provides 42% of the agricultural GDP, down from 60% in the Soviet era.

*Source: Gerber et al. (2010)*

million, more than 90% of the world's population), Tibetan sheep (*Ovis ammon*) and goats (around 42 million). The plateau is home to over 10 million people, of whom about 52% are nomadic pastoralists of Tibetan origin.

The growing population, limited resources and rapid economic and social development lead to conflict and people leaving pastoralism. Nearly half the alpine rangeland in the central plateau has been degraded over the past 40 years (Wang and Chen 2001), and 26% is so severely degraded that the land is bare during the winter and only sparsely covered by annual weeds or poisonous plants in the summer (Ikeya and Fratkin 2005, Dong 2011).

Pastoralism in **South Asia** is under pressure because of the expansion of crop-growing, the intensification of production, the collapse of agropastoral systems, the disruption of migration routes and land acquisition for industrialization and nature conservation. In Afghanistan exist two main types of livestock production systems, those of sedentary villagers and the transhumant system: the transhumant sector has a third of the small

ruminants and most of the country's camels. Cattle, sheep and goats are however the main stock. In Bhutan and also in India exist two distinct types of pastoral production systems (FAO 2005): the transhumant Yak system which is limited to the alpine-cool temperate areas; the migratory cattle in the temperate-sub-tropical area. Both systems take advantage of the variations in climate and vegetation as herders migrate with their animals according to the seasons. **(Table 4)**

## Latin America

The **Andean highlands**, centred in Peru and Bolivia but extending to neighbouring Argentina, Chile and Ecuador, are located at around 3,800 m above sea level. Highlands cover about 30% of Peru (0.4 million km<sup>2</sup>) and 28% of Bolivia (0.3 million km<sup>2</sup>). The climate is cold and windy; the annual rainfall ranges from 800 mm in the north to 250 mm in the south. The vegetation consists mainly of bunch grasses and low-lying shrubs. Some 86% of the Peruvian Andes, and a similar proportion in the Bolivian highlands, are used exclusively as rangeland, and pastoralism is the predominant land use. All the sheep, llamas and alpacas in Peru and about 70% of the cattle are raised in the Andean region. Beginning in the mid-19th century, a wool value chain developed in the Bolivian highlands. More than 41% of the Peruvian population lives in the highlands; 60% of them are rural. In Bolivia, about 50% of the population lives in the highlands; most keep livestock.

Many of the problems facing pastoralists are related to past policy changes. Attempts to mechanize and to modernize production forced transhumant pastoralists to become







sedentary (Dong 2011). Such reforms failed to appreciate the basis of pastoralism, and led instead to worse ecological, economic and social conditions (Nori 2007, Westreicher et al. 2007).

In the Bolivian Andes, community range-lands, known as *ayllus*, were traditionally managed collectively. Strict rules regulated the access to and use of these lands, and maintained a balance between the population and resources (Swift 2004, Westreicher et al. 2007). But the government regarded collective ownership of pastures as dysfunctional and an irrational resistance to modernization efforts. In 1953, it instigated agrarian reform to provide farmers with individual land titles. Although the pastoralists fought against this policy, in the 1970s the *ayllus* were subdivided into smaller units (hamlets), each covering a group of families with a land title (Swift 2004). As in Central Asia, customary land ownership was transformed as a result and hitherto the functional mechanisms for decision-making were eroded (Swift 1994).

Another reform in Peru in 1969 aiming at “modernization” and “mechanization” forced transhumant herders to settle in villages, even though the traditional vertical (mountain to valley) and horizontal (following the rains in the plains) transhumance spread risks and exploited seasonal pastures (Dong et al. 2011, Brownman 1987, Postigo et al. 2008). As a result, social differences have increased some rangeland and water resources have been excluded from the public sector (Postigo et al. 2008). Development projects that originate from this attempt at reform generally focus on pasture management, alpaca breeding and improving social capital.

Since the early 1990s in Peru, neoliberal

agrarian reform has steered agricultural development and promoted agricultural market, capital- and land-intensive approaches, as well as the private ownership of land (Kay 2002). Even though this makes pastoral communities the owners of pastoral land, conflicts between new households and communities over access and control of pastures resources has increased. The policy has also considerably weakened government involvement in agricultural development, with a reduction in advisory services, technical assistance and credit institutions (Postigo et al. 2008). In addition, inequality has risen between herders who are employed and those who own land, and overgrazing has increased pressure on the pastures (Brownman 1983; Lesorogol 2003).

The agrarian reforms in the Bolivian and Peruvian highlands have stimulated rising inequality, social differentiation and poverty in pastoral societies, partly caused by increased pressure on rangeland, reduced government involvement in agricultural development, and the dismantling of traditional land-tenure systems (Dong 2011). It remains to be seen



whether more recent trends have been able to reverse these developments.

The **Chaco ecosystem** provides a livelihood for 7 million people on 1.1 million km<sup>2</sup>, mainly in Argentina, but also in Paraguay, Bolivia and Brazil. The 0.5 million indigenous people in the Chaco account for around 8% of its population, but in some provinces they comprise 40% of the rural inhabitants. Originally covered with spiny, dry forest, this area is subject to poor agricultural practices and overgrazing. The carrying capacity is 5–50 cows per km<sup>2</sup>. Land distribution is reminiscent of the colonial latifundia: only 7% of the landowners hold 70% of the area. Correspondingly, 80% of the area's output comes from 20% of the producers.

Historically, the area has witnessed tensions between indigenous hunter-gatherers who later switching to keeping sheep and goats, and a Criollo population of mixed indigenous and European ancestry who mainly



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keep cattle. After centuries of livestock production, the region is now threatened by the advance of soybean cropping to produce feed for industrial livestock production in countries far away. The Redes Chaco consortium facilitates networking and advocacy by local community organizations. This promotes the conservation of the environment and livelihoods, the realization of value from local products, and the improvement of management practices.

## Conclusions

Pastoralism is the main rural livelihood in the world's rangelands and drylands, which cover a large part of the world's surface. But these habitats, and pastoralism itself, lack a global accounting agency to keep track of their development. This is one reason for the poor international focus on developing drylands, a general lack of statistics and the weak performance of pastoralist advocacy. This is especially a problem given the current conflicts and international crises in several locations.

Despite this neglect, pastoralism has been proven to be extremely resilient. Views on it are changing, and international institutions are beginning to give it more attention. We now realize that pastoralism is well-adapted to high-risk environments as it is able to manage risks. We also realize that pastoral society is adapted to the ecological situation but can adapt to opportunities as they arise.

Pastoralism is a worldwide phenomenon, using livestock species and management approaches suited to the local environment. In some countries it is a major livelihood and big contributor to the economy. In others, it is practised by a minority; in these countries, government policies and the expansion of crop farming make it difficult for pastoralists to continue pursuing their livelihood.





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## 2 THE PASTORALIST ECOSYSTEM

### NATURAL CAPITAL

Natural capital is the basis for ecosystem service provision. It is the stock of natural assets which includes grasslands and other vegetation, minerals, climate, soil, air, water, and all living organisms (including the genetic, functional, taxonomic and ecosystem diversity).

Pastoralists manage their natural capital in specific ways that have evolved over centuries in response to the harsh environment. Key strategies include accessing and managing natural resources (mainly grazing land and water sources), and moving over large areas to make the most effective use of scarce resources and in response to environmental conditions (Desta et al. 2008, Markakis 2004). These sophisticated, dynamic strategies have allowed pastoralists to cope with threats and risks and to maintain a viable production and livelihood. Drought is a major external shock and triggers crises in most pastoral areas. Cyclical droughts are a defining feature of pastoralists' way of life and "local livelihoods are sensitively adapted to the certainty that

drought will come and can be overcome" (UN OCHA 2008). Indeed, pastoral livelihoods systems have progressively evolved to optimize the use of natural resources and to deal with the effects of cyclical droughts. They have ultimately ensured pastoralists' resilience to risk for centuries (Pavanello 2009).

In all pastoralist regions the issue of land and access to it are a major concern. A number of different legal frameworks (customary, Islamic-Sharia, colonial administration, army control) and tenure systems (community, individual, state-owned) overlap. Clearer, more accountable, and enforced legislation is required to govern and manage land resources in a way that considers pastoralists' needs. Encroachment on rangelands by mining, urbanization, intensive agriculture and contamination occurs in many areas.

Such factors pose a major challenge to the sustainable development in pastoral areas. At the same time, traditional practices and institutions that manage and govern resources are sometimes inconsistent and inadequate.

### Grasslands and drylands

Pastoralism is well suited for grasslands, drylands and other areas with extreme con-



ditions. Pastoralists use a range of complex practices and have detailed knowledge on how to maintain a sustainable balance between the vegetation, livestock density and people.

Most dryland areas have patches of vegetation that are comparatively stable. These are usually along rivers or other water bodies where water is available throughout the year. Such areas cover a small portion of the total drylands. Pastoralists usually keep them as a buffer to use when other resources are inaccessible or exhausted; they are often referred to as dry-season grazing areas. Animal and zoonotic diseases are often more common in these areas, partly because of the higher concentration of animals.

Pasture quality often is highest in the dryland proper, where the short growing season forces annual grasses to accumulate protein preferentially in their seeds. When it rains, the grass grows quickly and temporary ponds make it possible to water animals. But water attracts animals, which eat the vegetation and trample the ground. Providing permanent water sources may thus lead to land degradation, erosion and climate change. Customary rules prevent degradation by managing livestock numbers and controlling how long a herd may stay in one place.

Various territorial approaches aim at protecting or enhancing biodiversity and manag-

ing the climate. They include holistic rangeland management (Hatfield and Davies 2007), planned grazing (Flintan and Cullis 2009), climate-smart agriculture, and silvo-pastoral systems (Gerber 2010).

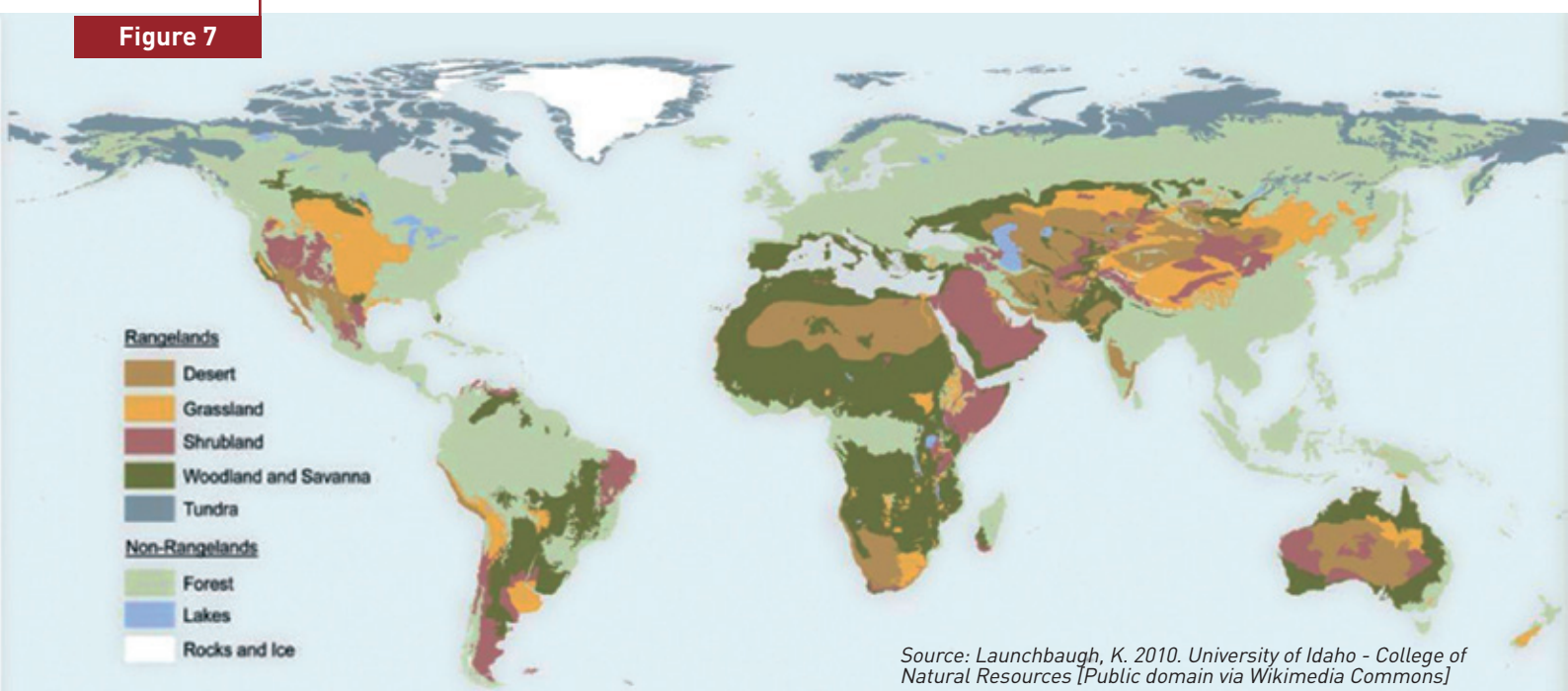
## Livestock

The world's grasslands are home to an estimated 406 million cattle (out of a global total of 1,526 million) and 590 million small ruminants (out of a total of 1,777 million) (Steinfeld 2006). In our survey based on 315 households in 8 globally distributed pastoral territories, small ruminants was the most common livestock (61% of respondents owned goats, and 58% owned sheep); followed by cattle (46% of pastoralists), horse (32%) and camels (13%) (Figure 8).

The distribution of livestock types shows a large variability from place to place. Sheep and goats are common in all eight hotspots except the Altiplano, where camelids are the dominant hardy livestock. Cattle were present in all the territories, although they seemed less important in Tiris Zemmour, where they might be substituted by camels. The distribution of livestock has changed in Eastern and Southern Africa, with pastoralists increasing their numbers of sheep and especially goats, which are more drought-resistant than cattle

Map of the world's rangelands

Figure 7

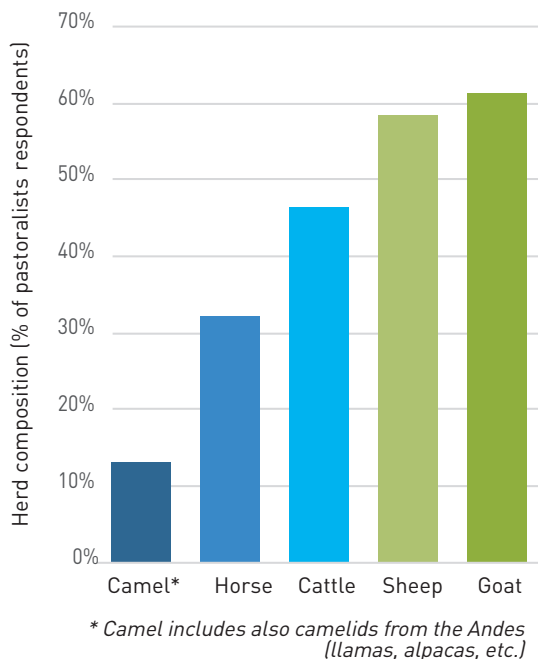


Source: Launchbaugh, K. 2010. University of Idaho - College of Natural Resources [Public domain via Wikimedia Commons]

**Figure 8**

Respondents =  
315 pastoralists  
in 8 hotspots

Livestock  
type among  
surveyed  
pastoralists



and reproduce more quickly. This allows the herd to recover more rapidly after disasters.

The pastoralists we questioned categorized their herds into 3 different sizes. In all eight hotspots, more than half the interviewees said they had medium-sized herds.

With no banks or other financial services in pastoral areas, livestock act as a major form of savings. They behave in a similar way to a stock exchange: values go up (through births and growth) and down (during drought). Returns on investments in the herd are often higher than bank returns, but the risks are greater. Although net natural herd growth rates for cattle are relatively low, at about 2–3% per year, the increase in monetary value of animals as they grow older is high. Successful pastoralists recycle their earnings by buying more livestock. Many farmers, civil servants and urban-based businessmen also do the same.

The risks of storing excess income in the herd include drought, disease and raiding. But the animals themselves act as insurance. Three mechanisms are important:

- **Genetic variability.** Some species and breeds perform better under good conditions; others perform better under harsh conditions.

- **Mobility.** When the going gets too difficult, pastoralists can walk away with their livestock, unlike other less mobile livelihood systems.

- **Herd management.** The more animals a household owns, the greater its chances of dealing with risks and surviving adversity. A family with a large herd can give or borrow animals to others in need, spreading risk and investing in social capital. The more animals one has after a drought, the faster the herd will recover. The larger residual herd will also have a greater diversity of animals (species, age, sex) for the family to rely on. Households with bigger herds can also split them into smaller units, each going in different directions, spreading the risk of losing all animals in a drought.

These strategies, however, have been undermined by reduced mobility, more frequent drought, etc.

A herd is not only a stock of animals with balanced age/sex structure; it also produces a flow of benefits to the household, the community, neighbouring farmers, and traders. These benefits include young animals, milk, blood, meat and fat, and opportunities to earn money from traction and manure. Livestock play a fundamental role in food security and nutrition for pastoralists; they are an important source of high-quality proteins, especially for children or lactating women (Sadler et al. 2009). Milk and meat can be sold for cash or bartered for cereals and other items (Hesse and MacGregor 2006). Livestock sales are estimated to contribute over 60–85% of total household income in selected Eastern African pastoral communities.

Livestock also have many, highly valuable, non-market uses. They make it possible to build social relationships and reinforce com-





plex customary institutions. Such uses may be more important than their monetary value. This may affect owners' decisions to sell animals or their products and be an opportunity cost for their market involvement (Hesse and MacGregor 2006).

✓ **Livestock productivity and market potentials should be improved, through adequate veterinary services, vaccinations (mobile services for nomads), and opportunities for processing, transportation and products diversification.**

Policies need to consider what constitutes an improvement in pastoral marketing, and should not only focus on increasing the offtake of products. Improving returns to livestock production and reducing transaction costs will confer important benefits on pastoralists. Such improvements may raise the total volume of trade; more importantly they will enable pastoralists to manage risk more effectively and build more resilient livelihoods (Hatfield and Davies 2006).

Pastoralists often keep several livestock species. This diversification mimics the natural ecological coexistence of multiple types of herbivores, enabling them to exploit different niches and use renewable resources efficiently.

Since centuries, pastoralists' have been developing breeding strategies that favour the animals' hardiness and productivity. This makes pastoralist systems more resilient towards external shocks, and in most situations, the herds are perfectly attuned to the local ecological conditions as a result of hundreds of years of natural selection and selective breeding.

✓ **The role of pastoralists as "keepers of genes" preserving biodiversity deserves recognition and support.**

## Water

Managing access to water, especially during the dry season and drought, is crucial. Without water, herders have to sell animals even though prices are low. If enough water is available, they can wait until prices are more favourable.

During dry spells, wells and other water sources run dry. This is not always a bad thing, as pastoralists are mobile and can move elsewhere in search of water. That allows the pastures to recover.

For many decades, development aid concentrated on building wells in rangelands. But the results were mixed. Sometimes a new water source had the wrong management setup or used the wrong technology. Equipment became damaged or was not maintained properly, leaving the well out of operation. Rangelands often cannot support larger numbers of people or livestock. Pumping stations that making lots of water available cause changes in society and shift migration patterns, leading to an overuse of natural resources around the well, erosion and a changed local climate.

Our survey of hotspots showed that in the Altiplano most wells function during the dry season, so few pastoralists need to sell their livestock during the dry season when prices are low (**Figure 9**). But in Africa and Asia we found no clear relationship between water availability and livestock sales during drought.

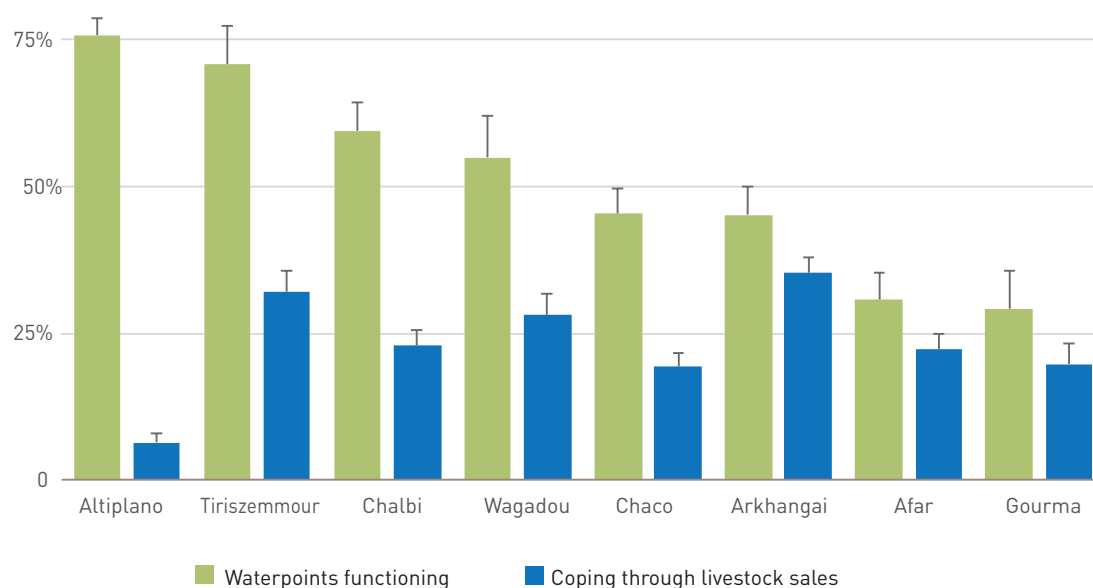
Pastoralists in Eastern and Southern Africa



Figure 9

Respondents =  
315 pastoralists  
in 8 hotspots

Percentage of functioning water points during dry season in relation to the share of pastoralist who sell livestock even at low prices as coping mechanism during drought in 8 pastoral hotspots



strongly supported the increasing the accessibility of grazing areas and water points to alleviate conflicts. They also complained about poor water quality: many water resources are salty or are shared between animals and humans.

In our North Africa and West Asia consultations, the pastoralists pointed out the need to invest in water resources (i.e. deeper wells, maintaining pumps) as a primary concern, especially in areas where rising human populations and climate change have reduced water availability.

✓ Rather than building pumping stations, it is often better to store water in shallow wells, sand dams and water catchments, to build stone walls as windbreaks, and to promote the growth of vegetation. Communities should be involved in planning, building and managing water sources; their maintenance can be assured through user fees.

weeds, and increase plant and bird diversity. Some seeds need to be eaten and excreted by livestock before they can germinate. For their part, trees offer shade (reducing the amount of energy animals need for heat regulation and increasing their milk production) as well as forage, especially when no grass is available. Some herders use trees in the form of protein banks, alley crops and live fences. Trees also provide timber, fence posts, fuel and a habitat for wildlife (Harvey and Haber 1999).

Forests enhance water retention: the trees protect the soil and act as windbreaks, so reduce evaporation. Light and humidity in the understorey is regulated by shade from the canopy, and in turn affect plant growth and species composition. If forests are converted to silvopastoral land, the remaining trees can maintain organic matter, nutrient levels, and biological activity in the soil. The trade-off between the positive and negative effects of trees on understorey growth depends in part on the tree species, density, and growth stage (Ainsworth et al. 2012).

## Forest

Little is known about the interaction between livestock and forest. This is surprising because many rangelands are found in forests; indeed, pastoralists are often accused of damaging woodland. Nevertheless, silvopastoral land-use has several benefits. Livestock provide manure, improve the soil, control

✓ Our research suggests that practical examples and larger initiatives for managing forest and integrating trees into rangelands are lacking. This area requires attention, not at least to raise awareness among the pastoralists about its potentials.

## CLIMATE CHANGE

Because they are so dependent on the environment, pastoralists are severely affected by climatic fluctuations and by climate change. Herders have found ways to adapt to periodic droughts, or reduce their effects: they move to pastures elsewhere, split their herds, or reduce their herd sizes. Despite this, a severe drought can decimate a herd and leave pastoralists dependent on handouts especially when severe droughts recur in shorter intervals without time to recover.

Much concern has been raised about the contribution of livestock to greenhouse gases and thus to climate change. Livestock-related emissions are caused mainly by methane ( $\text{CH}_4$ ) released by ruminants through the digestion of fibrous forage; and nitrous oxide ( $\text{N}_2\text{O}$ ) from manure storage and use of fertilizers on the soil. Furthermore, emissions of carbon dioxide ( $\text{CO}_2$ ) come from the input supply chain (mainly from the production of fertilizers and pesticides for feed crops) and from deforestation to establish pastures or crop cultivation (land use change).

Pastoralism is a low-input system, is steward of rangeland and maintains the ecosystem. There are reasons to assume that the overall carbon balance of pastoralism could be actually positive. The high emissions caused by the digestion of fibrous grass diets are not accompanied by additional emissions from intensive feed production. And the emissions from pastoralist livestock must be balanced against the significant carbon sequestration rate in rangelands. Moreover, mobile pastoralism is an adaptive production strategy that assures the economic survival of hundreds of millions of people and contributes to the sustainable management of natural resources and the conservation of nature.

Two FAO landmark publications, *Livestock's long shadow* (2006) and *Tackling climate change through livestock* (2013) stated that domestic animals contribute 18% (14.5% in the latter book) to anthropogenic greenhouse gas emissions. These studies significantly harmed



the reputation of small-scale livestock keepers, who are the backbone for food security and nutrition and sustainable development in rural areas, and in particular low-input grassland-based production systems (VSF International 2013). Rebuttals by several institutions, including one by VSF International, emphasized the need to calculate emissions for the whole production chain. The calculations should include emissions from the production of inputs needed to produce feed and other inputs, land-use changes, right through to consumption. They should also differentiate more specifically among types of livestock systems. A recent study by ILRI scientists (Pelster et al. 2016) provided evidence that the emission factor used for calculating “cradle-to-farm gate” emissions (TIER-1), which is widely used, is not adequate for African livestock and overestimates systematically emissions that are reported by African countries towards the Intergovernmental Panel on Climate Change (IPCC).

In carbon accounting, generally anthropogenic greenhouse gas emissions are accounted for. The common way to define the metrics is to follow recommendations issued by different standardization organizations linked to the Kyoto Protocol, generally by identifying where greenhouse gases are released and which activities and its scopes are linked to it.

The most used metrics to assess emissions linked to livestock production are expressed in  $\text{CO}_2$ -equivalent per kg of meat, milk, pro-

teins, etc. produced, as the usual scope is the production of livestock commodities. In terms of emissions per kilogram of meat or milk produced, pastoralism fares poorly because dryland grasses are high in fibre and cellulose and contain little accessible energy. By using this calculation system, a concentrate-fed cow may produce a kilogram of milk at the cost of 0.9 kg CO<sub>2</sub>eq, whereas a pastoralist animal may emit over 3 kg CO<sub>2</sub>eq. This is largely because dryland grass contains a lot of poorly digestible fibres and cellulose. As a result, bacteria in the animals' rumen produce a lot of methane, a potent greenhouse gas.

But pastoralist livestock keeping does not always aim to produce a certain number of kilograms of meat or milk, but rather to support people in a risky environment.

✓ In order to fairly compare systems, the carbon footprint should rather be livelihood-based, expressed as kilograms of CO<sub>2</sub>-equivalent per person or unit of land, or consumption based as type of lifestyle within a cultural context.

In terms of total emissions, cattle raised on grasslands (which covers both ranching and pastoralism) emit 314 million tonnes (Mt) CO<sub>2</sub> equivalent per year (**Table 5**). That is little compared to other (more intensive) production systems: only 16.5% of the global cattle non-CO<sub>2</sub> emissions. Sheep and goats emit another 104 Mt, or 34% of the total for these species. Because of the dietary base, the biggest non-CO<sub>2</sub> emissions are in sub-Saharan Africa (122 Mt CO<sub>2</sub> equivalent/year) and Latin America (92 Mt). But in both continents, far more emissions come from mixed farming and intensive livestock production, to which belong most of the national livestock herds.

Unlike pastoralism, ranching systems can be responsible for land use changes, especially in Latin America and Asia (**Table 5** Life-cycle assessment). These results in large emissions of carbon dioxide released by deforestation, which are responsible for a great part of the emissions related to rangelands.

If we consider the carbon-balance of the overall system, pastoralism as a whole emits indeed relatively little greenhouse gases, and it performs far better than other more input-demanding livestock production systems in carbon-balance terms. This is because it does not involve clearing land for ranches or

Table 5. Emissions of CH<sub>4</sub> and NO<sub>2</sub> from cattle, sheep and goats under different production systems

	GRASSLANDS				TOTAL RUMINANT LIVESTOCK SECTOR EMISSIONS <sup>1)</sup>	
	Arid	Humid	Temperate or mountain	Total	Non-CO <sub>2</sub>	Life-cycle assessment (includes CO <sub>2</sub> )
Million tonnes CO <sub>2</sub> equivalent/year						
Sub Saharan Africa	95	17	10	122	333	380
Latin America	24	63	5	92	410	1,735
Asia and Russia	20	5	26	51	700	1,931
Australia and NZ	38	15	0	53	120	153
Europe	5	9	29	43	350	728
North America	20	0	8	28	200	684
West Asia North Africa	30	0	0	30	90	346
<b>Totals</b>	<b>232</b>	<b>109</b>	<b>78</b>	<b>419</b>	<b>2,203</b>	<b>5,960</b>
<b>Cattle</b>	163	98	53	<b>314</b>	1,896	
<b>Sheep and goats</b>	68	11	25	<b>104</b>	307	

Recalculated using data from Herrero et. al. (2013). Life-cycle assessment according to Gerber et al. 2013, includes CO<sub>2</sub> emissions related to production and land-use change

<sup>1)</sup> including extensive, mixed and intensive production



large-scale fodder production, it requires few external inputs, and it maintains grasslands, which act as carbon sink.

Grasslands accumulate large amounts of carbon in their roots, and shade trees and forests absorb and store additional amounts. In sum pastoralism has the ability to promote healthy ecosystems in the face of climate change, and common pastures are potential reservoirs of sequestered greenhouse gases. Although the climate change adaptation capacity of pastoralism is widely recognized, more work is needed to study and understand its climate change mitigation role and potential.

✓ Besides calculating emissions, appropriate studies are needed to assess the role of pastoralism in promoting healthy productive ecosystem and maintaining important ecosystem functions. It is possible that pastoralism may actually be carbon-neutral.

Well-managed rangelands are an important carbon sink: they store about 34% of the global terrestrial stock of CO<sub>2</sub>. But if they are

degraded or are converted to cropland, they lose some of their capacity to store this carbon (FAO 2006, World Bank 2009).

Ways to reduce emissions and increase carbon storage include increasing the digestibility of grass (Herrero et al. 2016), improving grazing management, improving herd productivity, and avoiding land-use changes due to more intensive ruminant production.

✓ Climate change mitigation measures from pastoralism shall include efforts to increase the digestibility of the forage through improved grassland management; to increase the carbon sequestration potential by planting or protecting trees and recovering degraded pastures and to improve the herd management in order to reach higher productivity level in shorter period.





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## 3 HUMAN WELL-BEING

### POLITICAL CAPITAL

By political capital, we mean a group's ability to mobilize its norms and values to influence standards, regulations and enforcement to determine the distribution and use of resources (Flora and Flora 2008). It includes access to power, organizations, connection to resources and power brokers (Emery and Flora 2006). When a community has high political capital, its people have the collective ability to find their own voice and to engage in actions that contribute to the well-being of their community (Emery and Flora 2006).

### Policies

Our survey asked about a range of policies and regulations that influence pastoralist livelihoods: concerning land tenure, pastoralism, milk hygiene, animal health, food safety (meat, milk), mobility and trade. While policies on many other topics may influence pastoral livelihoods we selected these so as to get a basic overview. Note that we asked for our interviewees' perceptions; time and

financial limitations did not always allow us to verify whether they were indeed correct.

**Ethiopia** has several policies that conflict with each other. For example, proclamation 819/2014 on the marketing of live animals promotes the livestock trade as a major revenue earner for the country; the policy on voluntary settlement, on the other hand, discourages pastoralist practices. The Ministry of Livestock and Fisheries recently received the mandate for livestock policies from the former Ministry of Agriculture, but confusion still exists between it and the Ministry of Federal Affairs, which hosts powerful pastoral committees.

The Ethiopian pastoralists we interviewed said that livestock production and pastoralism were vital for food security, lifestyles and livelihoods. They were concerned that policies are formulated in a top-down manner. Inappropriate policies and programmes exacerbate the effects of climate change, they said, fail to meet pastoralists' needs or protect their livelihoods, and ignore indigenous knowledge and practices. Pastoralists should be involved at all levels in formulating and implanting national policies, programmes and strategies, in compliance with Article 89(5) of the Constitution. Our respondents emphasized the need to trans-

form pastoralists' livelihood and practices by building their capacity to diversify their livelihoods and protect their livestock assets, for example through improved management and marketing, better infrastructure, and sustainable rangeland management.

**Kenya** has several policies that support the pastoralist sector, they suffer from weak coordination and harmonization, contradictions with other regulations, and bureaucracy. Challenges exist in harmonizing and coordinating international, regional and national policies, such as the African Union's pastoral framework and national policies on arid and semi-arid lands and on livestock marketing. Kenya's pastoralist parliamentary group has increased the herders' representation in policy formulation, but pastoralist civil society and indigenous pastoralist groups have not been engaged effectively. Very low representation and participation in formulation hamper the targeting and effectiveness of policies. The government has put more emphasis on enforcement and implementation.

**South Africa** has reasonably good policies covering most aspects of pastoralism, said our respondents. But weak enforcement is a challenge. The harmonization of food safety

and animal health policies were seen as excellent because of strong engagement by the Ministry of Agriculture and Forestry, while livestock marketing, trade and mobility, subject to the Livestock Council, received poor marks for institutional coordination. The effectiveness seemed to correlate strongly with the involvement of pastoralists and pastoralist organizations.

### Existence of policies

Policies exist in almost all the countries for most of the topics we asked about (**Figure 10, left**). For pastoral issues and milk hygiene they are sometimes integrated into other policies.

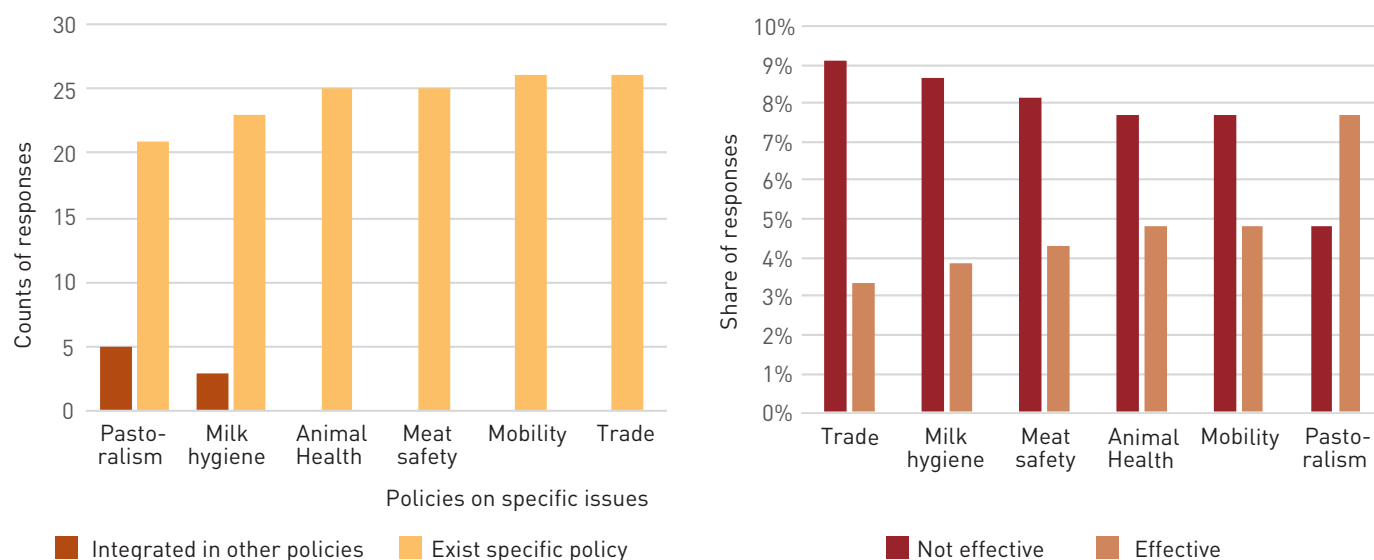
### Effectiveness of policies

Our respondents said that most policies did not consider specifically pastoralism and were not effective (**Figure 10, right**). Policies on trade, hygiene and meat safety were deemed least effective, while those on animal health and mobility were somewhat more effective. The majority of those who expressed an opinion regarded policies on pastoralism itself as effective. Policies aspects related to the value chain are seen as

**Figure 10**

Respondents = panel of experts in 26 countries (policy)

Opinions of respondents in 26 countries on the existence of explicit policies of pastoralism related issues (left) and whether policies effectively (explicitly) consider pastoralism (right) (remaining percentage did not respond).

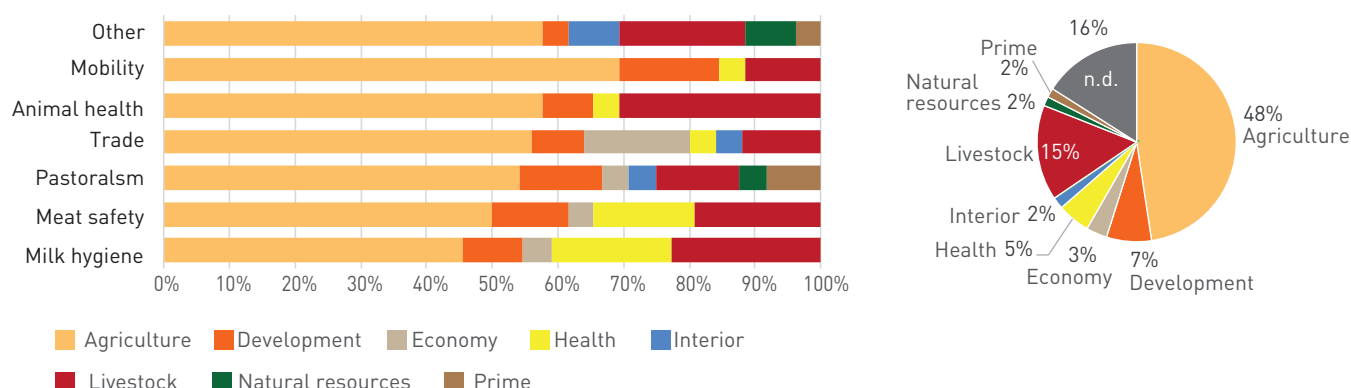




**Figure 11**

Respondents =  
panel of experts in 26  
countries (policy)

Share of Ministries involved in specific pastoralism-related policies (left) and share of Ministries involved as lead Ministry in pastoralism-related policy (right) (% of counts)



generally weak for pastoralists, and may require a particular focus if they are to benefit herders.

### Responsibility for policies

The primary responsibility for the selected policy areas are allocated to the ministries of agriculture (48%) and livestock (16%) (**Figure 11**). Other ministries also play important roles in their areas of concern. The economics ministry steers policy on livestock trade; the ministry of health is involved in food-safety and hygiene issues; the ministry of rural development has a stake in policies such as livestock mobility, pastoralism and meat safety, while the ministry of the interior or prime minister's office often deals with

pastoralist issues.

Which ministries are involved in the most effective policies? If we compare the results on the perceived effectiveness of policies with those of the ministries involved, we see that effective policies tended to be associated with powerful ministries, such as the ministry of the interior or the prime minister's office. This may reflect instances where pastoralism has received particular national attention.

Nevertheless, 43% of our respondents said that the ministry of agriculture was related to effective policies, while 27% said the ministry of livestock did so (**Figure 12, left**). This suggests that the competence and knowledge about pastoralist livelihoods is concentrated in these ministries.

**Figure 12**

Respondents =  
panel of experts in 26  
countries (policy)

Percentage of respondents who said ministries related to policies that are considered to be effective to pastoralist conditions (% of counts) (left); Scale of policy harmonization in regard to certain aspects in pastoralist life (% of respondents) (right)

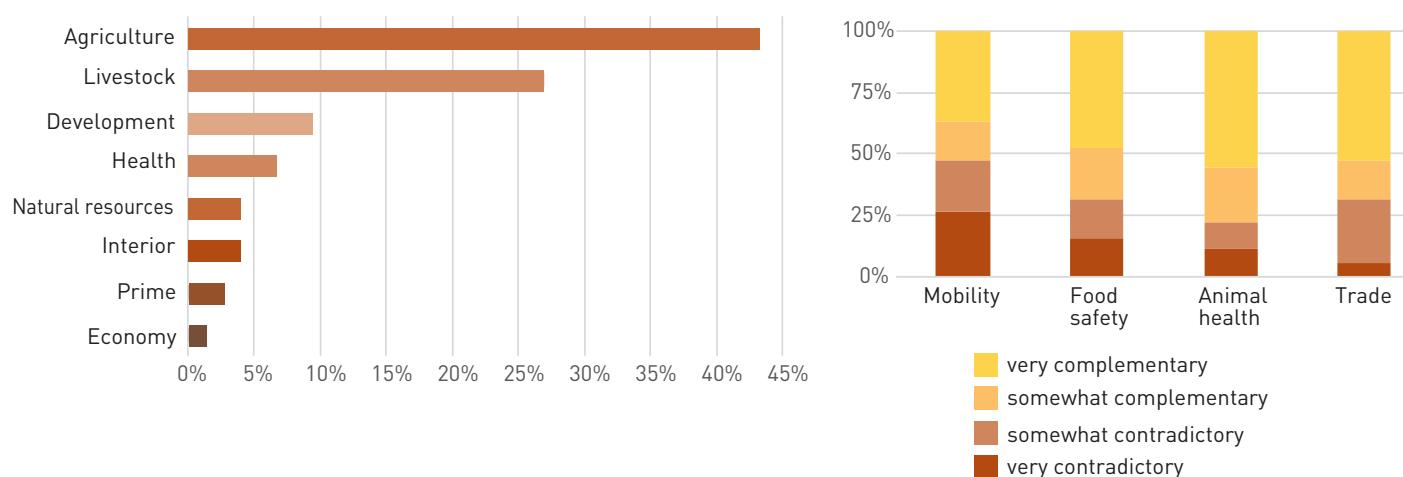
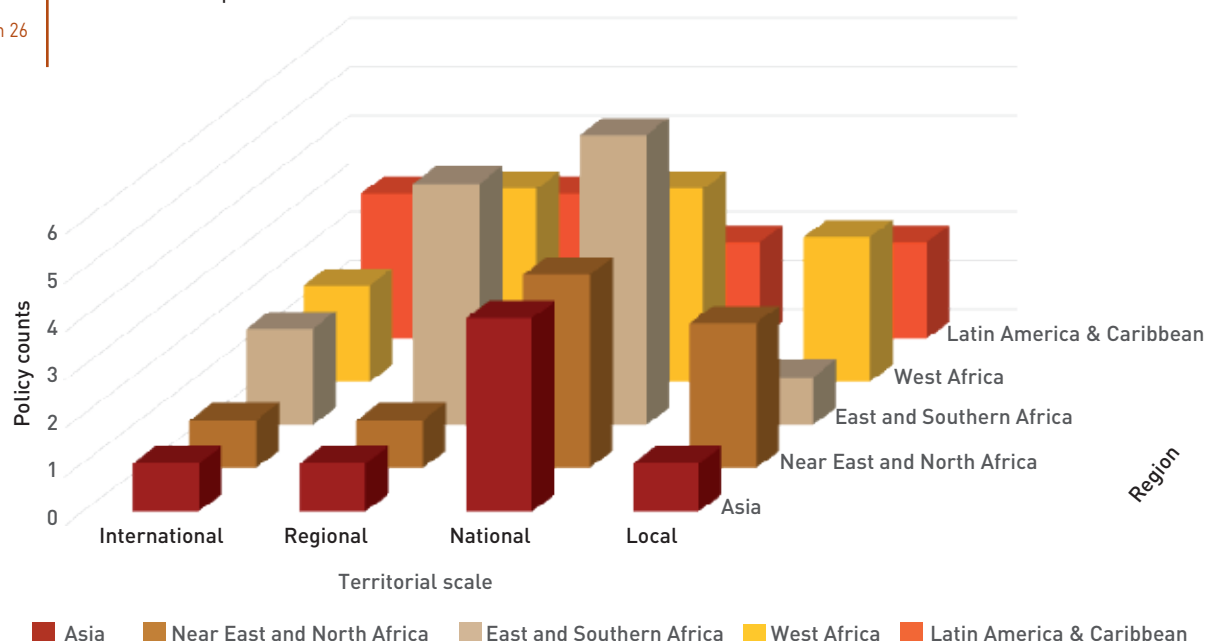


Figure 13

Respondents =  
panel of experts in 26  
countries (policy)

Pastoralist policies and frameworks at various territorial scales



### Policy harmonization

Policies may be inefficient and laws dysfunctional if they contradict other policy instruments. We asked our respondents in 26 countries if this was the case. Overall, they said that policies dealing with mobility were least complementary with other policies, with 47% of respondents saying they were somewhat or very contradictory (**Figure 12, right**). Policies dealing with food safety, animal health and trade were more complementary among different policies that tackle that respective issue.

Mobility issues are mainly the sole responsibility of ministries of agriculture (**Figure 11, left**), while various ministries tend to collaborate on animal health and food safety issues. Enhancing collaboration with other ministries might be a way to improve the complementarity of policies on mobility. Policy instruments are often more complementary if they use a combination of command and control, incentives, and information or market-based approaches.

### Scale of policies

Most policies to regulate pastoralism can be found in West and Central Africa and in Eastern and Southern Africa (**Figure 13**). In

both those regions and in Latin America efforts have been made to have regional and international policies enacted, though most policies still apply to national contexts. North Africa and West Asia and West Africa have the highest proportion of local policies supporting pastoralism. Awareness of international policies was highest among our respondents in Latin America, perhaps because of the existence of pacts such as Mercosur, the Andean Pact and UNASUR, and the region's adherence to OIE standards.

In 2010, the African Union's Policy Framework on Pastoralism was enacted, giving a continent-wide recognition of the need to promote pastoralism. Some regions and countries in Africa have since made a significant progress in implementation but others have not. Such differences cause problems for pastoralists: because they move across borders, they rely on harmonized regulations between countries, and between districts within a country.

But pastoralists also need policies to be developed and applied locally. Both Asia and Eastern Africa have few policies created at the local level.

## Effectiveness of policies

We asked respondents in 26 countries about the effectiveness of policies on 20 different issues (**Figure 14**). More than one-quarter of the respondents said that policies on community animal health workers and consumer protection were highly effective. These were followed by wildlife protection, general security, animal welfare, the handling of pharmaceuticals, meat inspection and food safety. At the other end of the scale were policies on trade, traceability, protection of natural resources, pollution control and land degradation, with only 11% or less of the respondents seeing them as highly effective.

Policies on traceability and protection of natural resources were also seen as ineffective by a large proportion of the respondents, along with issues of security, water use, consumer protection and disaster risk reduction.

We were surprised that policies on community animal health workers were seen as effective by so many interviewees (only 11% thought that policy was ineffective). This is despite the major debate on how to institutionalize community animal health workers.

In general, policies concerning inputs to and outputs from the pastoralist system tend to be seen as effective, while those concerning the management of the system itself are regarded often as less effective.

## Consideration of pastoralists' circumstances

We asked the same set of respondents whether the policies on the 20 issues considered the pastoralists' circumstances (**Figure 15, left**). Animal health, traceability, disease prevention, community-based animal health workers scored highly on this measure. Consumer protection, meat inspection and animal welfare scored lowest.

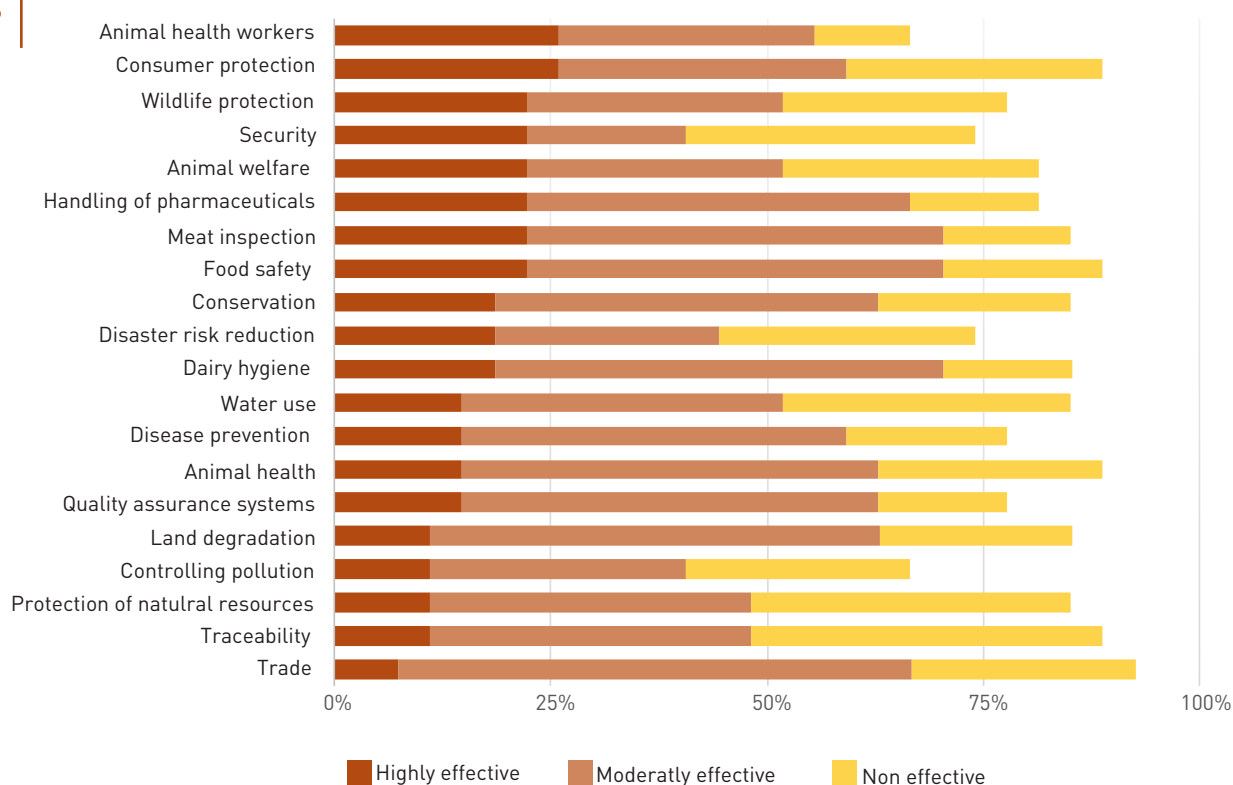
## Consultation on policies

Authorities are frequently urged to consult widely when formulating policies, for example by involving lobby groups, advocacy organizations, producer or interest groups in the design and collecting their feedback on proposals. Doing so requires an active, empowered civil society – which does not exist

**Figure 14**

Respondents = panel of experts in 26 countries (policy)

Opinions on the effectiveness of policies on various issues (% of respondents)

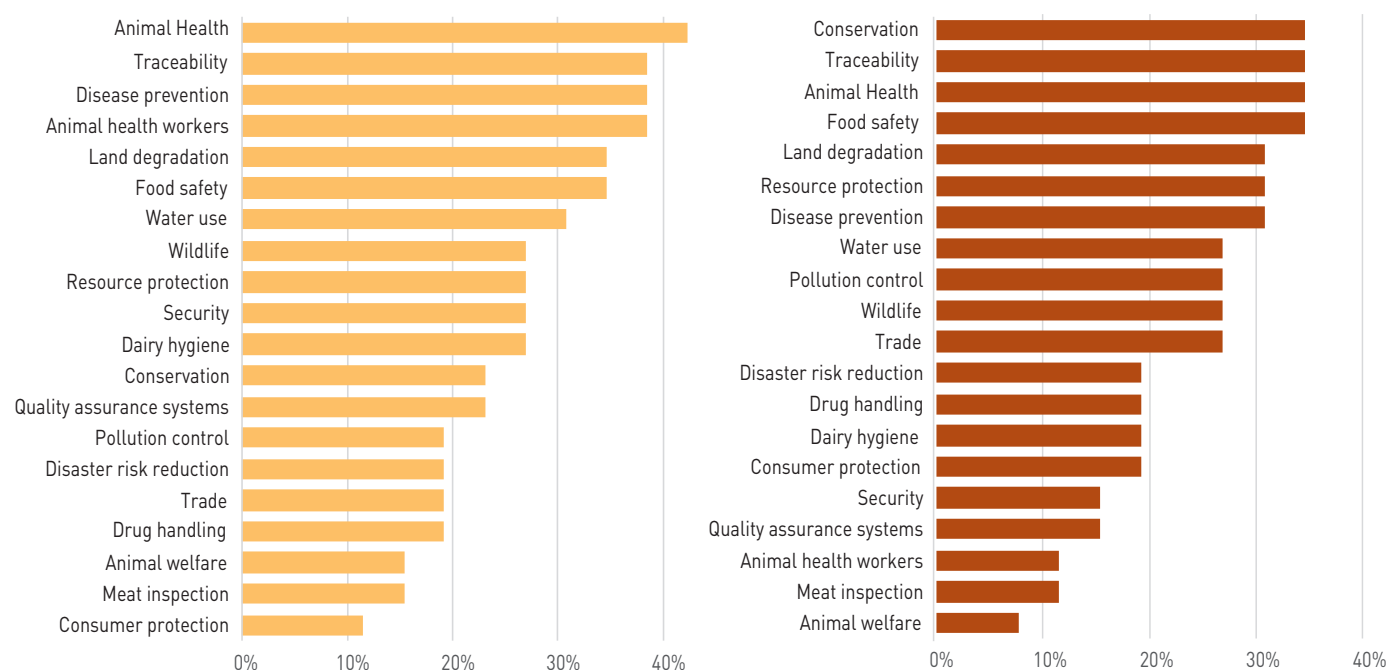




**Figure 15**

Respondents =  
panel of experts in 26  
countries (policy)

Percentage of respondents saying that a policy considers pastoralists' circumstances (left); percentage saying that advocacy groups had been consulted in formulating the policy (right)



everywhere. It also depends on the issue at hand: some aspects are more easily handled by specialists, while others lend themselves better to a consultative process.

We asked the respondents whether pastoralist advocacy groups had been consulted when the policies were formulated (**Figure 15, right**). Issues scoring high on this measure included conservation, traceability, animal health and food safety, followed by land degradation, natural resource protection and disease prevention. The least participatory processes covered specialized and sensitive areas such as quality assurance, meat inspection, security, animal welfare, and community animal health workers. Recall that our respondents in this case were themselves officials: it seems that they have some reservations in involving civil society in policy formulation.

### “Sticks”

Policies may use “sticks”, “carrots” or “paper”. A stick is a prohibition or rule restricting what people may do. A carrot is an incentive to stimulate them to do something. “Paper”, or information, helps them make up their own mind. We first asked our informants

whether four broad policy categories were based on sticks, and how clearly the penalties were defined.

They said that policies on mobility, trade and marketing, and animal health were very strongly based on prohibitions and rules (the left-hand line of columns in **Figure 16, left**). Policies on food safety were less strongly based on such sticks. But they also thought that penalties for breaking the rules were only weakly defined (**Figure 16, right**). However, several respondents pointed out that clearly defined penalties do exist, which leads us to suspect that both scenarios exist in parallel.

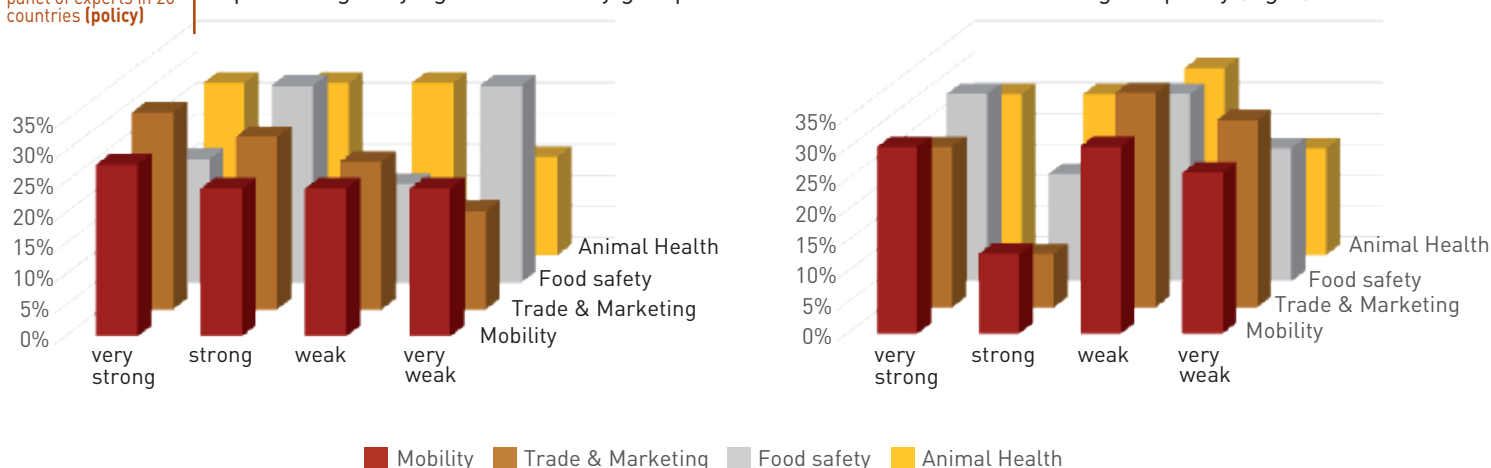
### “Carrots” and “paper”

We next asked whether policies on the same four areas used carrots (subsidies, guarantees) or paper (pilot demonstrations, extension advice) to stimulate good practices. Here, the trends were very clear: most respondents said that extension and pilot programmes were used, while fewer reported that subsidies and guarantees were applied (**Figure 17, left**). But the respondents said that policies were based only weakly on carrots and paper: sticks seem to be far more important (**Figure 17, right**).

**Figure 16**

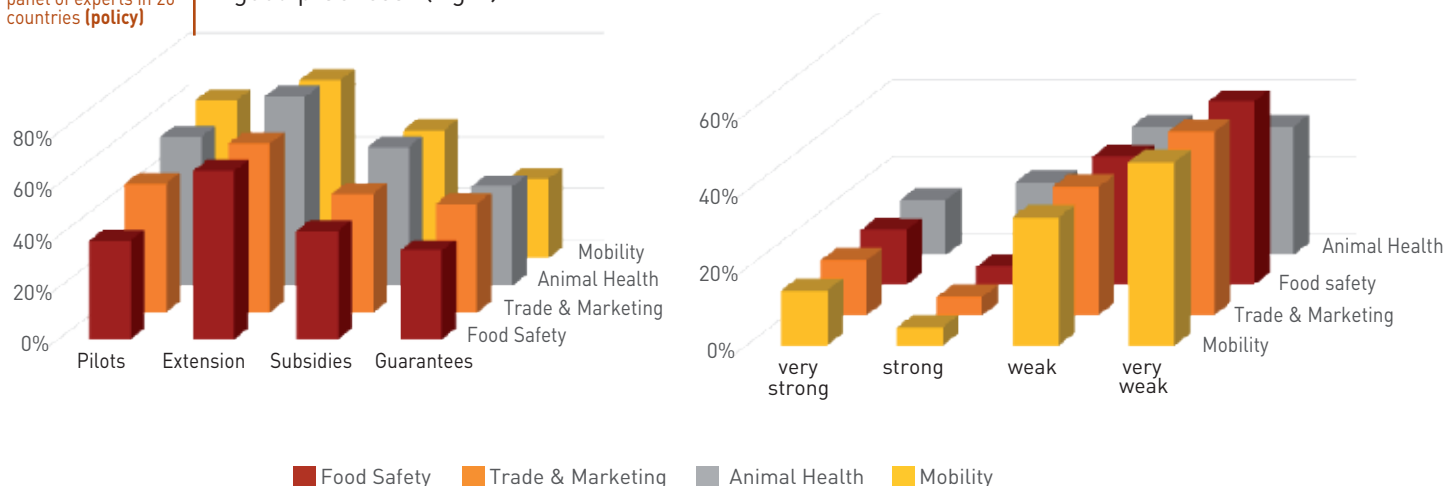
Respondents = panel of experts in 26 countries (policy)

Percentage of respondents saying that a policy considers pastoralists' circumstances (left); percentage saying that advocacy groups had been consulted in formulating the policy (right)


**Figure 17**

Respondents = panel of experts in 26 countries (policy)

How are good practices stimulated? (left); how strongly is the policy based on the stimulation of good practices? (right)



## Responsibility for enforcement

Most of our respondents said that an agency existed to enforce policies in the four areas. Often, multiple agencies were involved (Figure 18). But the respondents said that both enforcement and coordination among the agencies were weak, especially on mobility questions (Figure 19).

## Conclusion

In conclusion, most policies try to govern inputs to and outputs from the pastoralist system, focusing on trade and the value chain, supplies and control of commodities. Policies that deal specifically with pastoralist

**Figure 18**

Respondents = panel of experts in 26 countries (policy)

Who is responsible for enforcing regulations and policies?

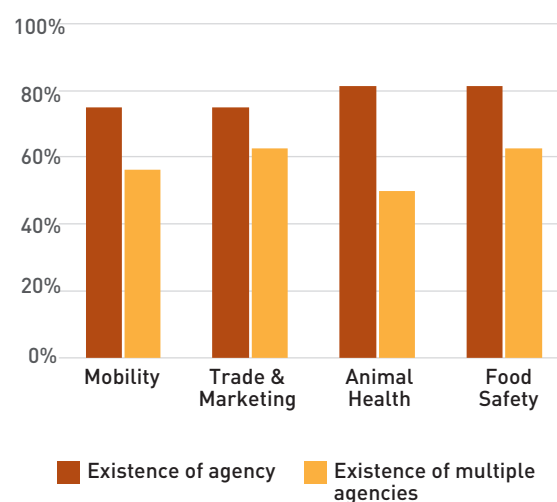
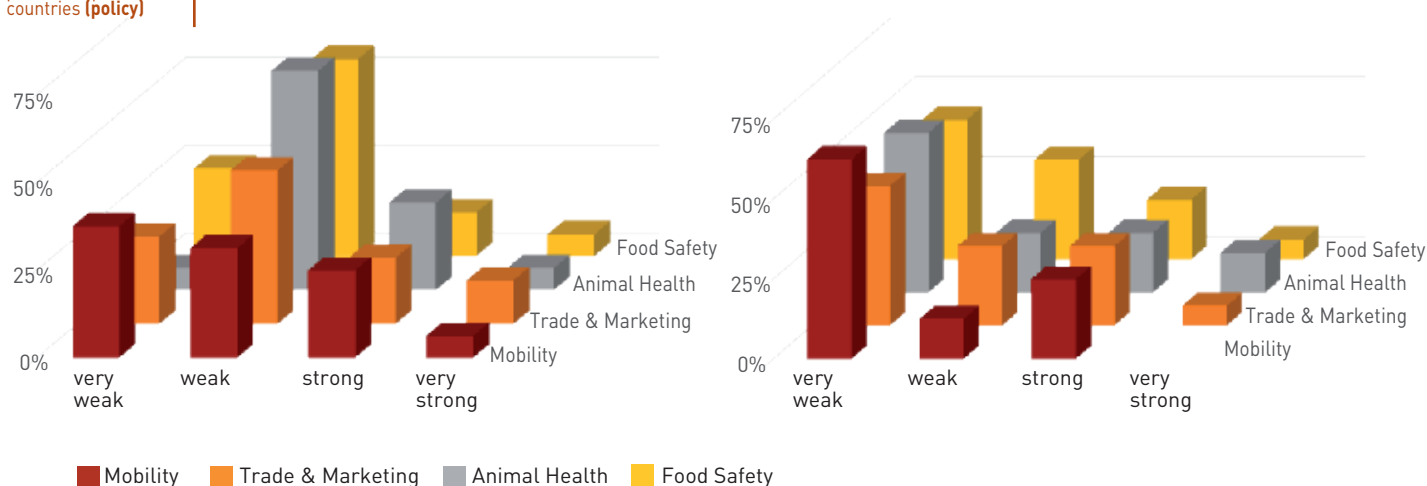


Figure 19

Respondents =  
panel of experts in 26  
countries (policy)

How strongly are policies enforced? (left).  
How strongly is enforcement coordinated by ministries? (right)



issues are rare, but in most cases are integrated into other policies. Most effective policies are those steered by a powerful ministry, or by a ministry with technical capacity for pastoralist matters. Policies were seen as more effective if they were based on collaboration with other ministries. Participation by pastoralists or civil society was not associated with more effective policies, but it was inversely correlated with specialized or sensitive matters.

The policies seem to be based on rules that are weakly coordinated and enforced, rather than on incentives or learning. They are disconnected from pastoralists' needs for information and advice.

✓ Suitable policies are needed in a wide range of areas: service provision, natural resource management, disaster risk-reduction, safety nets, market integration, grazing agreements, security, and transboundary communities and diseases. Information exchange should be improved among ministries and with pastoralist communities, and pastoralists should be involved in making decisions that affect them. Development is not only about better access to information, but also about rights and participatory decision making. Greater participation, better coordination and harmonized policies would benefit the pastoralist production system.

## Regional agricultural policies

Increasing integration has led to the African Union and various regional economic commissions in Africa developing regional policies to harmonize actions between countries. Such regional policies are important because they can influence actions at the national level, and can make life easier for pastoralists who move or trade across borders. There may be opportunities for pastoralists to influence the design and implementation of such policies. For this, effective organization and lobbying work is vital.

## Advocacy and empowerment

Policymaking needs to involve the people affected. Once decided on, a policy needs to be implemented equitably and efficiently, and negative impacts need to be minimized. None of these happen enough in pastoral areas. In general, there is a legacy of poor policy and governance towards pastoralism that needs to be reversed.

## Marginalization

Pastoral communities have seen their livelihoods erode and now face increasing problems in adapting to change and recovering from drought. There is a general consensus in the literature this chronic weakness is associated not only with the environment, but also



with complex political, economic and social processes (WISP 2008, Morton 2008, HPG 2006, Markakis 2004).

The **longstanding political marginalization of pastoral communities** is widely regarded as a major factor. Unfavourable policies and practices, unresponsive formal institutions and continuing negative views of pastoralism have progressively weakened pastoralists' livelihood strategies. A decline in their assets in turn weakens their political clout. Herders are now the most politically marginalized group in a rising number of countries across the regions studied. The major issues related to pastoral development are policy and governance: issues such as conflict and insecurity, marketing of livestock, land-securing rights, inadequate provision of services and infrastructure, drought, and dependence on food aid (Morton et al. 2007).

Political marginalization results from an unequal power relationship between the state and pastoral civil society, in particular community organizations, local associations, and other pastoral groups (Morton et al. 2007). Public institutions are unresponsive and unaccountable. Pastoralists lack both the incentives to participate in national political debates and the ability to organize themselves to exert influence. Some former herders have joined the government but have distanced themselves from pastoralist life; they fail to represent the needs and interests of the pastoralist community. Pastoral elites are emerging: people with a formal education who now live in the city and have gradually alienated themselves from the pastoral life (McGahey et al. 2007).

Policy making is a highly political process that attempts to harmonize the interests of

different parties. But their interests are often conflicting, and power issues are crucial. Those with political or economic power find it easy to advance their interests, while the poor and marginalized struggle to make their voices heard. They often have little choice but to follow an agenda set by more powerful actors.

The alienation of pastoralists from national political, economic and social life goes back to the colonial era. Colonial administrations clashed with the pastoralist social system, leading to the progressive deterioration of the herders' livelihoods and social networks. The trends have continued since independence. New borders and fences, private landholdings and nature reserves limited their mobility and the amount of grazing they had available. The seizure of land and water resources allowed the expansion of crop farming and tourism. Few investments have been made in infrastructure, social services or technology in pastoralist territories (Markakis 2004). Civil wars, expulsions and impoverishment have exacerbated the situation.

The impact of marginalization is thoroughly discussed in the literature (Morton et al. 2007, Mussa 2004, EC 2012, Dong 2011, Hatfield and Davies 2006, Hesse and Odhiambo 2006). While the impacts are complex, we can identify some common trends:

- **Limited access to productive assets**, including rangelands, water, and capital
- **Limited access to basic services** such as education, health, animal health, credit, and extension advice. This can have political causes, but often originates because of bureaucratic procedures. For example, funding for schools based on the schoolchildren enrolled discriminates against sparsely populated regions with low enrolment.
- **Dependence on aid** in areas prone to conflict or natural disasters. In areas with protracted exposure, humanitarian aid is seen as a semi-permanent solution. Aid often distorts local markets and destroys the fragile local crafts economy, increasing dependency.
- **Food crises** and fluctuations in food prices caused by increasingly frequent extreme weather and a lower resilience of people in marginal lands.
- **Conflict**, which is often related to climate extremes (Burke 2009).



Table 6. Potential advantages and risks with decentralization

ADVANTAGES	RISKS
Better service delivery	Mismatch between mandates and delivery capacity
Local democratization and local governance	Elite capture and bad local governance
Improved equity	Inter-jurisdictional disparities
Improved development and poverty reduction	Local development not supported by central policies

Source: EC (2007)

## Decentralization

Recent decades have seen significant decentralization in many countries. This has aimed to make decision-making more responsive to local needs and to strengthen the voices of the poor and marginalized communities. This has the potential to benefit pastoralists too, and to lead to closer cooperation between pastoralists and the government (WISP 2008).

Decentralization is a powerful trend worldwide, particularly in Africa, that can bypass the winner-takes-all politics of national governments. It comes in several forms (Cheema et al. 1983):

- **Deconcentration:** Spatial relocation of decision-making, the transfer of some administrative responsibilities for authorities to lower levels within central government ministries or agencies.

- **Delegation:** Assignment of specific decision-making authorities that can be done by the transfer of managerial responsibility for specific defined functions to public organizations outside the normal bureaucratic structure of central government.

- **Devolution:** Transfer of responsibility for governing, the strengthening (financially or legally) of sub-national units of governments, whose activities are substantially outside the direct control of central government.

Decentralization has various advantages, as well as risks (Table 6). One of these, elite capture, is where local elites may gain access to economic, political and knowledge resources, and minorities may be less able to defend their interests within their own communities.

In addition, decentralization can be effective only if it is accompanied by the **transfer of resources**. But central governments are often reluctant to grant control of land and natural resources to local institutions. Poorly funded local authorities are too weak to take independent action, and they are highly dependent on financial transfers from central government (Markakis 2004, Hesse and Odhiambo 2006). Plus, local officials are often not part of the rural community, but are seconded from elsewhere, so are not familiar with pastoralist habits, necessities and conflicts.

✓ Decentralization is no “quick fix” that will automatically improve the voice of the poor in pastoralist regions. It cannot solve alone other causes of marginalization: remoteness, cross-border identities, and misunderstandings about pastoralism.

## Participation in decision-making

Pastoralists have long demanded a part in making national-level decisions on issues that affect them. But their lack of political voice and the weak policy and institutional framework hinder this. Pastoralists inhabit remote, sparsely populated areas, so it is hard for them to build a critical mass or to get involved in policymaking. They often rely on voluntary gestures from the government to get invited.

The main policy issues that represent a main concern for pastoralists are communal land tenure, collective resource management, mobility, access to markets, adapted services and infrastructure, vulnerability to climate change, and conflict and insecurity (Statement of the Farmers' Forum Special Session with pastoralists and Livestock Breeders, 2016). To remove barriers, legal support for pastoral policies is required, along with incentives and a mix of policies.

International institutions such as the European Union, the African Union and the Food and Agriculture Organization have mechanisms for integrating pastoralists in policy formulation. Many are linked to the rights allocated to indigenous peoples. Various NGOs, political groups and international organi-

Table 7. Percentage of community leaders interviewed who are members of various types of pastoralists' groups

HOTSPOT	ELDERS COUNCIL	MARKET	RANGELAND	RELIGIOUS	COMMUNITY ANIMAL HEALTH	BANKING
Afar	100	40	0	80	100	40
Chalbi	100	0	50	50	67	33
Gourma	100	100	100	100	50	0
Wagadou	100	100	100	100	0	0
Chaco	50	10	0	0	0	0
Altiplano	13	40	7	0	0	7
Arkhangai	0	50	100	17	17	33
Tiris Zemmour	0	0	0	0	0	0
<b>Total</b>	<b>45</b>	<b>33</b>	<b>29</b>	<b>24</b>	<b>22</b>	<b>14</b>

Respondents = 49 pastoralist leaders in 8 hotspots

Table 8. Percentage of pastoralists interviewed who are members of various types of pastoralists' groups

HOTSPOT	ELDERS COUNCIL	MARKET	RANGELAND	RELIGIOUS	COMMUNITY ANIMAL HEALTH	BANKING
Afar	27	17	3	60	37	3
Chalbi	10	23	13	13	33	0
Gourma	0	0	27	10	0	0
Wagadou	7	10	60	10	3	0
Chaco	19	0	8	0	0	0
Altiplano	39	28	34	4	2	4
Arkhangai	0	3	13	0	0	0
Tiris Zemmour	0	14	46	3	0	0
<b>Total</b>	<b>17</b>	<b>15</b>	<b>27</b>	<b>10</b>	<b>8</b>	<b>2</b>

Respondents = 315 pastoralists in 8 hotspots

zations support advocacy groups or movements. But all too often, individuals or groups get funding to take part in single meetings, but not to the whole process. Such meetings often try to link civil society with state initiatives to assure pastoralist rights, governance and voice. Even if a policy proposal is agreed, it may not be enacted; if enacted, it may not be financed or enforced.

✓ **Helping pastoralists organize to express their own interests is vital if their voice is to be heard. Civil society organizations and their networks should be strengthened at local, national, regional, and international levels to engage in policy dialogue and help design projects that benefit pastoralists through a meaningful and genuine representation. Governments should create spaces for policy dialogue that include pastoralists**

**organisation as privileged interlocutors when dealing with issues affecting their livelihoods or concerning their territories.**

### Membership of groups

We asked 49 pastoralist leaders in the eight hotspots what groups they were associated with (**Table 7**). Nearly half were members of an elders' council, and one-third were members of a marketing group or rangeland group. Leaders in the Chaco and Altiplano (both in Latin America) were rarely members of a group, while those in Tiris Zemmour (the southern Atlas) were members of no groups at all.

We asked the same question of the 315 pastoralists we interviewed in the hotspots. Of these, 27% were members of a rangeland group, while about one in six belonged to an elders' council or marketing group (**Table 8**).



## Effectiveness of groups

We also asked which types of organizations played an important role in linking with public services. The leaders (**Table 9**) thought that elders' councils, marketing, and rangeland organizations were important, along with community animal health groups. Fewer pastoralists thought that any of the groups were important: only 12% mentioned elders' councils and rangeland groups as important links (**Table 10**).

## Parliamentary groups

The fall of authoritarian regimes during the early 1990s and the opening of political space have led to the spread of civil society initiatives for the establishment of pastoral parliamentary groups in several countries, including Ethiopia, Kenya, and Uganda.

**Ethiopia.** The Standing Committee of Pastoral Affairs (PASC), established in 2002 in the Ethiopian parliament by members of different ethnic groups, tries to promote sustainable development and pastoralist advocacy. It has three main tasks (Morton et al. 2007):

- **Legislation:** Assessing political issues and political decisions, and ensuring that policy reflects the interests of pastoral communities
- **Supervision:** Examination of activities of the public administration, such as aspects of infrastructure development, food security and early warning systems
- **Representation:** With a focus on promoting the skills of pastoralists and improving perceptions of and knowledge about pastoralism.

The committee is divided characterized by a strong divide between highlanders and pastoralists, ethnic federalism, and dominance

**Table 9. Percentage of community leaders who thought certain types of groups were important links to public services**

HOTSPOT	ELDERS COUNCIL	MARKET	RANGELAND	RELIGIOUS	COMMUNITY ANIMAL HEALTH	BANKING
Gourma	100	100	100	100	100	100
West Wagadou	100	100	100	100	100	100
Afar	100	40	0	0	100	40
Chaco	50	0	0	0	0	0
Chalbi	50	0	17	0	83	0
Altiplano	0	27	27	0	0	0
Arkhangai	0	33	67	0	17	33
Tiris Zemmour	0	0	0	0	0	0
Total	35	24	27	8	31	16

*Respondents = 49 pastoralist leaders in 8 hotspots*

**Table 10. Percentage of pastoralists who thought certain types of groups were important links to public services**

HOTSPOT	ELDERS COUNCIL	MARKET	RANGELAND	RELIGIOUS	COMMUNITY ANIMAL HEALTH	BANKING
Altiplano	34	2	11	0	0	2
Chaco	12	0	0	0	0	0
Wagadou	7	3	57	10	3	0
Afar	3	0	3	3	34	0
Chalbi	3	3	13	0	7	0
Arkhangai	0	0	0	0	0	0
Gourma	0	0	20	10	0	0
Tiris Zemmour	0	0	0	0	0	0
Total	12	1	12	2	4	1

*Respondents = 315 pastoralists in 8 hotspots*



by the main party, the EPRDF. It is not a voluntary association of MPs but a standing committee, established by proclamation and with legislative and oversight activities. It counts eight pastoral and five non-pastoral members who are chosen by the parliament.

**Kenya.** The Kenyan Parliamentary Pastoral Group (KPPG) is an advocacy group of lawmakers, open to any member of the Kenyan parliament with an interest in the pastoral development (Wario 2004, Livingstone 2005). Its main policy objectives and priorities are the advocacy of community-based property rights, the right to food, education and health, and the inclusion of pastoralists within national poverty reduction policies (Wario 2004). Most members were from KANU, the former ruling party, which dominated in pastoral areas, but achieved few benefits for the pastoralists. The group has suffered under successive governments, but experienced a revival with the Arid Lands programme and the establishment of the Ministry for Development of Northern Kenya and Other Arid Lands. In late 2010 it had about 30 active members.

These parliamentary groups, as well as civil-society groups such as the Kenyan Pastoralist Forum and the Ethiopian Pastoral Forum, may strengthen the voice of pastoralists and make it possible to raise their issues in

national political circles. But they have shortcomings. The parliamentary groups tend to be weak and overshadowed by powerful urban elites. They have so far had limited success in promoting pastoralist-friendly policies (Morton et al. 2007, Wario 2004). According to Markakis (2004), none has been able to initiate a single act that has benefited their constituencies. This disappointing record is due to their lack of representativeness, their limited capacity, and decentralization processes.

In **Uganda** there are two different and marginalized pastoral groups (though both support the government). The parliamentary group is a formal but voluntary group with stated goals and a constitution since 1999. Membership was open to all MPs who feel their constituencies have pastoralist-related issues that the group should address. Some 112 MPs attended the inaugural meeting, but the active membership was smaller and limited to pastoral and agropastoral constituencies.

These parliamentary groups' achievements so far have been modest and not always easy to distinguish from activities of individual MPs and extra-parliamentary groups. In Ethiopia the parliamentary group has an important oversight role. In Uganda, it undertakes rather a campaigning role. In Kenya it has influenced education policy and the establishment of the Ministry of the Development of Northern Kenya and Other Arid Lands. Alongside NGOs and civil society, it has helped create awareness about pastoralism and moderated conflict. Apart from in Kenya, the parliamentary groups have contributed only modestly to policy development, while NGOs and civil society have led in the large debates.

The main opportunities and challenges for the parliamentary groups are to influence major debates, master parliamentary procedures, maintain continuity across elections (the groups must explore more formal links with NGOs and former members) and access information. Information needs vary, but may include technical and socio-economic research and conditions in the MPs' own constituencies. In order to maintain donors' confidence, groups need to mobilize their own (or parliamentary) resources. They must

overcome local and ethnic particularism, but utilize synergies between members from different regions, generations and backgrounds.

The groups are a promising basis for the representation of pastoralists in national political circles. They are worth supporting, but they can only ever be one strategy for better governance. Pastoralists themselves need to be empowered through civil society, communications, the media and decentralized local government. It is important to include parliamentarians as policymakers, but recognize that they are more than this: they oversee implementation.

## Indigenous or minority status

Pastoralists have multiple political identities: pastoral, livestock-keeping, regional, ethnic, religious, and “indigenous”. This ability to fall within several political identities may be an advantage: for certain topics pastoralists can advocate as “indigenous people” and for other topics as “producers”.

Pastoral peoples maintain plenty of diverse cultures, ecological adaptations and management systems that nonetheless are changing with modernity. The use of pastoralism as an ethnic identity has grown in recent years. This

## Empowering local institutions

Local institutions can play a key role in ensuring pastoralists' voices are heard. Below are some examples (IIED 2014).

**Local grassroots movements.** Local organizations may be invisible at national or international scales, but they are critical for supporting local rights and ensuring they are recognized and enforced. These institutions can play many roles: they can act as intermediaries between the state and communities, champion local rights, substitute for state institutions that have limited capacity, protect assets, reduce political exclusion, promote transparency, help local people cope with climate change, build local capacity, enable access to markets, and raise incomes.

Their effectiveness may depend on state policies and the financing of grassroots organizations. Transferring resources and decision-making to district and community levels can help increase resilience. For this, flexible governance and management structures are essential.

**Civic–public partnerships.** Local action can generate a larger impact through partnerships between community groups and local authorities. Such partnerships can build local communities' capacity to voice their knowledge and approaches to government staff. Both sides can reach a common understanding through exchange.

**Pilot programmes.** Local organizations can run pilot programmes to try out new ideas that can later be scaled up. Such pilots also demonstrate their capacity to government agencies, donors and other organizations. Local people must own the idea and conduct the change in their own settings.

**Legal empowerment.** Local organizations can use legal channels to tackle power imbalances and support marginalized groups. They can help secure land rights, ensure that investment contributes to inclusive sustainable development, and ensure local people are consulted in policy decisions.







In **Northern Africa and West Asia**, participants in the consultation meeting said that many customs were being lost because of the magnet of European culture and pressures for emigration. Research, education and valorisation of these customs would prevent this loss by making young people aware of the importance of their culture. Improving services such as health and education would reduce the pressure to migrate.

## Mobility

Pastoral livelihoods are based on seasonal mobility and common use of natural resources, particularly rangelands, that are regulated by customary laws and practices and through traditional institutions and leadership. Mobility is central to pastoralists' identity and relationships; it draws on deep local and indigenous knowledge. It is vital for survival, especially in the event of a drought or other catastrophe. It avoids soil, water and environmental degradation and controls pollution and pests by rotating settlements and grazing areas. It co-exists harmoniously with local fauna and flora, so is a resilient alternative to cope with the vagaries of climate change.

Political pressure, often well-meaning, have promoted settlement programmes, but these have brought new problems. Malnutrition and poverty have increased, vast areas remain unsuited for agriculture, and the identities of local people have been ignored.

In recent decades, the development community has undergone a dramatic mind shift, from trying to settle pastoralists in permanent locations to promoting mobility as a mechanism to cope in a difficult environment. Patchy rainfall can mean that dry and green areas are only a few miles apart. Mobile pastoralists can take advantage of this variability. In Southern Darfur, for example, calf mortality in migratory herds is 11%; in sedentary herds it is 40%. Mobility is also important to access markets. Cattle trekked over 450 km from southern Somalia account for 26% of the beef consumed in Kenya, and 16% of that consumed in Nairobi (IIED 2013).

Distances covered vary widely. Pastoralists in the Chalbi desert in Kenya reported moving the furthest: a mean of 345 km in

has implications for the way pastoralist development is carried out. The United Nations High Commissioner for Human Rights (UNHCHR) recognizes that pastoralists in Africa can be classified as indigenous peoples as long as they are culturally different from the rest of the national population. More and more "mobile indigenous peoples" or "nomadic peoples" are claiming the right to maintain their mobile culture and to use their grazing lands (IUCN 2011). For many, the term "pastoralist" is an ethnic label rather than a profession, so it is possible to be a pastoralist without having anything to do with livestock or rangelands.

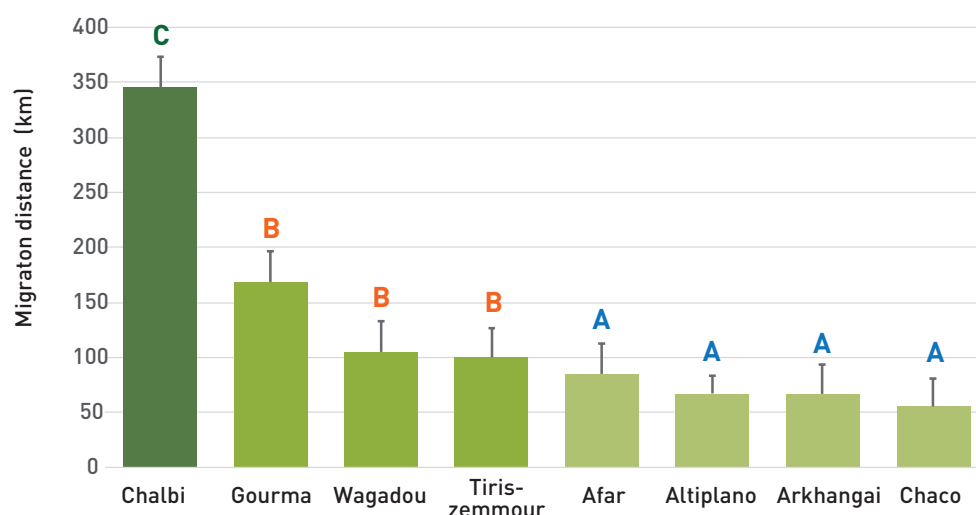
Protecting the rights of pastoralist peoples is a major challenge, according to UNHCHR (2007). This report recommends that "development projects should allow pastoral peoples, if they so wish, to preserve their way of life; and the traditional lands required for them to do so should be developed with indigenous participation" (IUCN 2011).

The consideration of pastoralist's rights has already had a big impact on pastoralist development. In the past decade, more pastoralist development projects have been approved that are based on the principles of empowerment and participation. This has coincided with a better understanding of dryland environments (IUCN 2011).

Figure 20

Respondents =  
315 pastoralists  
in 8 hotspots

Average annual  
migration  
distance of  
pastoralist  
groups (in km).



A, B, C represent significant difference among groups ( $P < 0.05$ ) by multiple comparisons following Tukey procedure. Bars represent the group specific error

2014/2015, with a maximum of 800 km. They were followed by herders in three West African hotspots: Gourma (mean = 168 km), Wagadou (105 km), and Tiris Zemmour (100 km). Respondents in the other four hotspots all moved less than 100 km a year, with those in the Chaco in South America covering only 55 km (Figure 20).

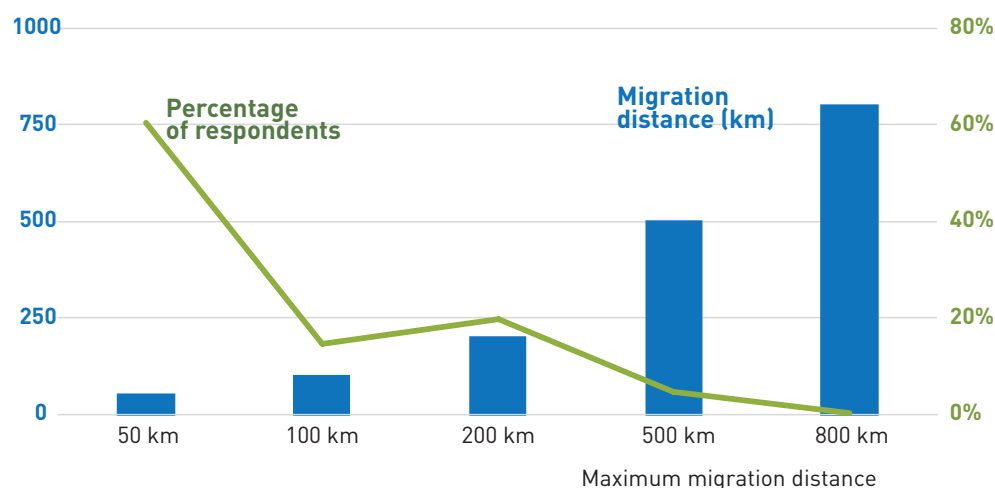
Figure 21 compares the maximum migration distances with the percentage of respondents who travelled each distance. Over 60% of the respondents moved less than 50 km a year, while 86% moved less than 200 km. Only 1% undertook extremely long treks of up to 800 km a year.

✓ Since mobility is essential for pastoralists to manage risk of drought, restricting it can leave them vulnerable to drought and other shocks. Policies should support mobility of pastoralists rather than trying to restrict it, and should manage all types of investments to guarantee land access and use for the pastoralist. Policies should be harmonized between countries, neighbouring districts, or across the boundaries of national parks.

Figure 21

Respondents =  
315 pastoralists  
in 8 hotspots

Percentage of  
pastoralists  
migrating  
different  
distances





## Cross-border issues

For historical and geographic reasons, national borders often pass through marginal, sparsely populated lands. People lived in such areas before the borders were drawn, and they continue to do so. They often rely on migration and trading routes across the border.

Borders impose several additional constraints on pastoralists:

- **Natural resource management.** Government authorities on either side of the border may fail to respect traditional agreements on grazing and watering rights. The decline in customary leadership among pastoralist groups exacerbates this. Conflicts over the use of natural resources may result.

- **Markets and trade.** Borders can hinder trade between neighbouring areas. Many cross-border peoples belong to minority groups in one (or both) countries and face difficulties in reaching their own markets or traditional goods. Much trade falls is informal and is not recorded. Governments may try (but often fail) to issue permits and collect taxes; traders do not see the sense of paying export fees merely to supply items to their kin a few kilometres across an artificial boundary. It may not be even clear which side the humans and their animals belong. During a conflict, governments try to seal the border, thereby cutting herders off from their economic lifeline.

- **Social exchange.** Social exchange is important to avoid conflict, and is vital if catastrophe strikes. But public entities are generally not enabled to dialogue with their counterparts on the other side of the border.

Various cross border and regional projects have tried to establish contacts between officials on either sides of a border to facilitate dialogue after a conflict or to provide assistance during a disaster. Cross-border committees could deal with these and other issues, and would ideally involve customary leaders as well as local authorities and bodies such as the police.

- **Risk reduction and humanitarian relief.** Borders restrict the effectiveness of relief efforts because they create logistical difficulties and entitlement problems. Cross-border populations may be excluded from entitlements because they lack citizenship; people from across the border may try to benefit from relief not intended from them. Humanitarian organizations realize this and try to design interventions that offer assistance on both sides of the border. Governments can support this by anticipating needs, developing procedures and agreeing these with their cross-border counterparts beforehand.

- **Transboundary diseases.** Finally, cross-border cooperation is key in order to deal with diseases outbreaks and implement effective disease eradication plans.

✓ Cross-border issues are often best dealt with through multi-stakeholder approaches, involving customary authorities, pastoralists representatives and public authorities (local/regional government, etc.) on either side.



## Land rights and tenure

Land rights are a controversial issue for pastoralism. The area once occupied by pastoralists or hunter/gatherers has been constantly reduced by a series of factors: the gazettement of national parks and conservation areas, the building of infrastructure (roads, dams, etc.) and extractive industries, and the expansion of cultivation.

## Land tenure systems in selected African countries

In **Tanzania** and in many other African countries, the rights to the commons have been very insecure. Tanzania's previous land legislation did not provide well for the rights of pastoralists and hunter-gatherers, making it easy to alienate land they have traditionally used (Mattee and Shem 2006, Odhiambo 2006). Tanzania's New Land Acts has several provisions to safeguard communally held rights (Alden Wily 2003). Such rights can be registered and the law also recognizes land-sharing between pastoralists and agriculturalists.

However, many observers point out that the rights supporting pastoralists are often too shallow and in some places contradict the provisions in other legislation: the Village Land Act and the Land Act. Many pastoral organizations fear that pastures may be regarded as "idle" or "bare", so allocated for investment by outsiders. A large part of the pastures falls into the category "general land", which is controlled exclusively by the central government. Pastoralists fear that the government may find it in the public interest for such land to be used for investment purposes.

In some regions these trends are alarming. **Ethiopia** has tended to neglect pastoralism despite its huge contribution to the national economy. The country has never had appropriate pastoral development policies and programmes; previous policies did not even guarantee pastoralists' rights to use the land. Pastoral land is often seen as unoccupied and underutilized. Policymakers advocate

outside investment in such areas, or use them to settle pastoralists or people from densely populated areas (Mussa 2004). Around 2 million hectares of land in pastoral areas of Ethiopia are under crop production (**Table 11**).

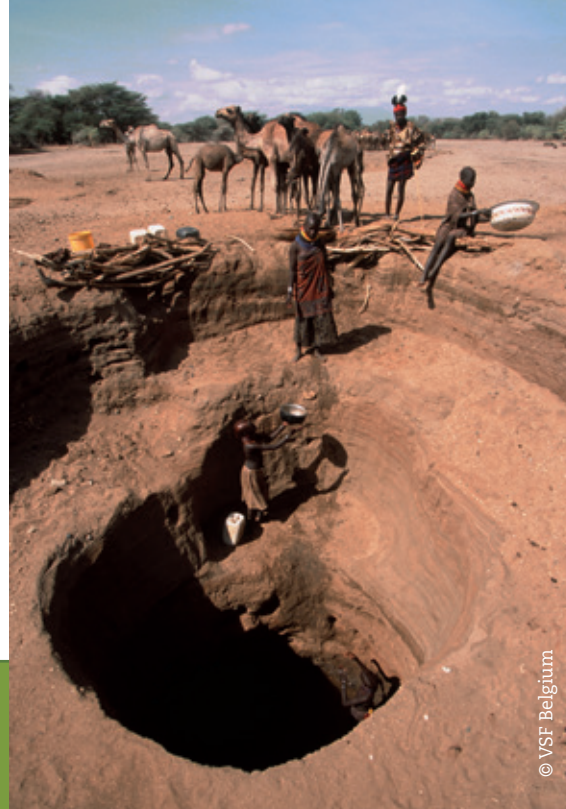
**Table 11. Land under crop production in pastoral areas in Ethiopia**

REGION	HECTARES	SOURCE
<b>Afar</b>	178,000	CEDEP (1999)
<b>Somali</b>	390,000	Regional BoA (1999)
<b>Borana</b>	1,332,900	Zonal DoAs
<b>South Omo</b>	58,103	SNNPR (2000)
<b>Gambela</b>	32,452	Socio-economic study (1996)
<b>Benishangui</b>	38,717	WARDIS (1998)
<b>Total</b>	<b>2,030,172</b>	

Source: Pavanello 2009

In Ethiopia, Afar pastoralists used to use the fertile, wet, lowlands along the Awash River for dry-season grazing. But over 75% of this area has been taken over by the government and foreign investors for roads, sugar plantations, resettlement schemes, towns, and salt mines. This has resulted in overgrazing and degradation of infertile highland rangelands.

Pastoralists feel that the government prefers cropping over pastoralism. They point to the enforcement of "voluntary" settlement that undermines pastoralist livelihoods without giving room for a proper transition. The rushed process leaves



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resettled pastoralists without skills or experience in farming or other livelihoods. Capacity building and mentoring for at least 5 years would help them adapt to the new livelihood system without increasing their vulnerability and poverty. The settlement process ignores pastoralists' rights to full consultation and expression of their views in planning and implementing policies and projects that affect them (FDRE Constitution Art 92:3).

In **Chad**, land is the property of the state, while there are public and private domains. Legislation recognizes the traditional law of access to land for an individual, a group of relatives or collective ownership. The Constitution stipulates that "private property is inviolable and sacred".

In **Mali** land is divided into state, communal

and private property. The law recognizes collective or individual customary rights on unregistered land. However, especially for individual users, it requires that the effective occupation of the land is demonstrated e.g. by the existence of buildings, houses, etc.

In **Kenya**, access rights and regulations for rangelands are developed and managed by communities themselves, apart from conservation areas (conservancies and national parks), where the government and the Kenya Wildlife Service designate grazing corridors.

Reciprocal agreements between neighbouring ethnic communities on grazing resources guide resource-sharing and manage conflicts. About 30% of pastoralists practise grazing plans and rotation grazing, but these lack effectiveness.

Tenure and access in most pastoral regions are hampered by overlapping governance systems, the deterioration of customary leadership, a shift to private property, government policies, and the designation of areas for military use. Non-pastoral uses occupy grazing land: oil drilling, mining, urbanization, and agricultural expansion. Investments in the name of the "public interest" and "national development" directly and indirectly harm herders' livelihoods by expropriating land, water and other natural resources. They are a major reason for tension and conflict.

✓ **The legislative framework around land should be clarified and enforced, and improvements should be designed with the involvement of pastoral communities.**

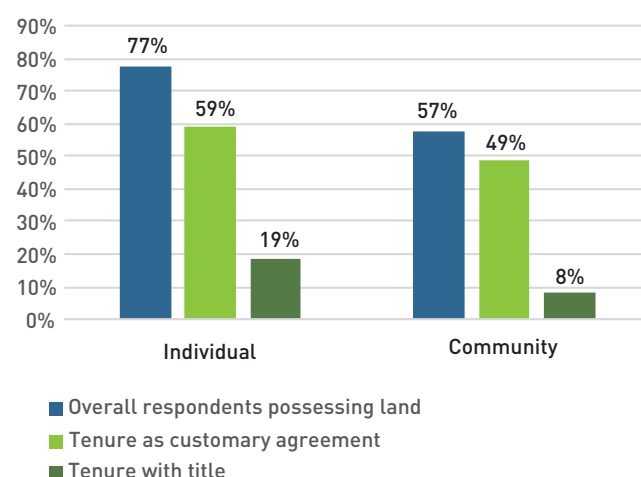
In our survey (**Figure 22**), 77% of pastoralists stated that they individually possess land, and 57% of the pastoralist possess land as communal ownership. Only a minority of the pastoralists owned land with formal title: 19% with individual title and 8% with a com-

munity-owned title. For much of pastoralists, land is owned through a customary agreement: 59% of the respondents had an individual customary agreement, and 49% stated that the community holds customary tenure.

**Figure 22**

Respondents =  
315 pastoralists  
in 8 hotspots

Pastoral individuals or communities possessing land and pastoralists possessing land through customary agreement or with title



✓ Pastoralist societies have traditional rules and rangeland management norms. Most land is governed by customary rules, which are able to assure property rights. Those customary land-tenure rights, traditional rules and rangeland management norms should be recognised and protected. National policies should support the formalization of communal customary land tenure.

A territorial approach can help overcome problems in rangeland development. Rangelands include patches of wetland that are used only at certain times of year, when the surrounding dryland no longer has enough forage to support the herd. Restrict mobility or cut off access to the wetland, and the animals cannot survive.

✓ It is important to view the territory as a whole, and to have all stakeholders discuss and agree on how to use it.

Topics include:

- Guaranteeing access and preventing encroachment by arable agriculture and other investments.
- Assure the application of the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT).
- Recognizing land and natural resource rights by legally protecting collective and private rights to manage grazing areas, water sources and livestock corridors.
- Ensuring pastoralists are involved in deciding on how to manage wildlife, reduce risks, maintain resilience, plan land use and manage the ecosystem (WISP 2015).
- Recognizing communal tenure (Hatfield and Davies 2006).
- Supporting mobility.
- Providing legal support for pastoral policies (Shem 2010).



## HUMAN AND CULTURAL CAPITALS

By human capital we mean the pastoralist people, along with their skills and abilities (Flora and Flora 2008, Fisher et al. 2014). Cultural capital reflects people's ways of knowing, ways of being, food systems, traditions and language (Flora and Flora 2008). It influences what voices are heard and listened to, the influence of voices in what areas, and how creativity, innovation, and influence emerge and are nurtured (Chain-Guadarrama et al. 2016). Cultural capital is highly diverse: it includes local knowledge, food systems, traditional decision-making processes, and so on.

Human capital and cultural capital are difficult to keep separate, and they are difficult to unravel from other issues too. We deal with the following topics in this section: the identity of pastoralism, food security, rangeland management, resilience, basic services, and gender issues.

### Identity of pastoralism

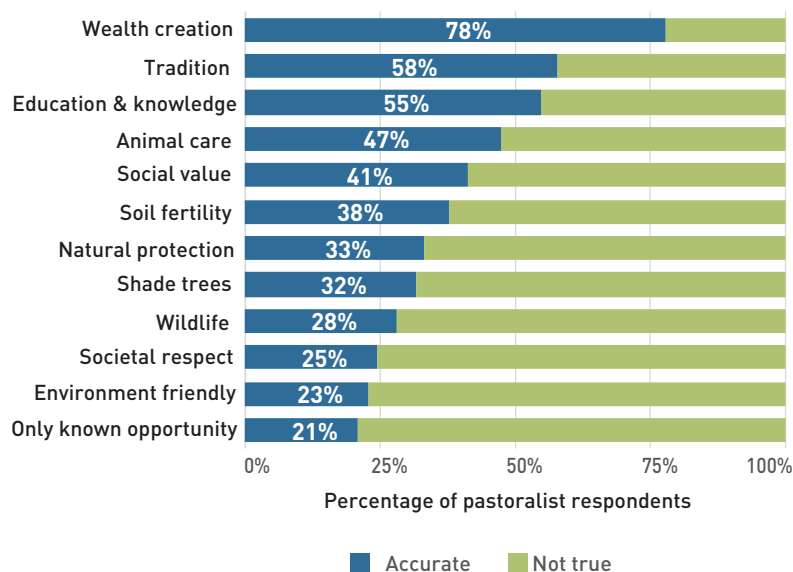
Pastoralists have accumulated a wealth of local knowledge, traditions, types of organization, forms of dress and types of food that make them distinctive, and that are vital in enabling them to survive in a harsh environment. Pastoralists themselves recognize this: tradition, local knowledge, care of animals and social values all scored highly when we asked them what they associated with pastoralism.



**Figure 23**

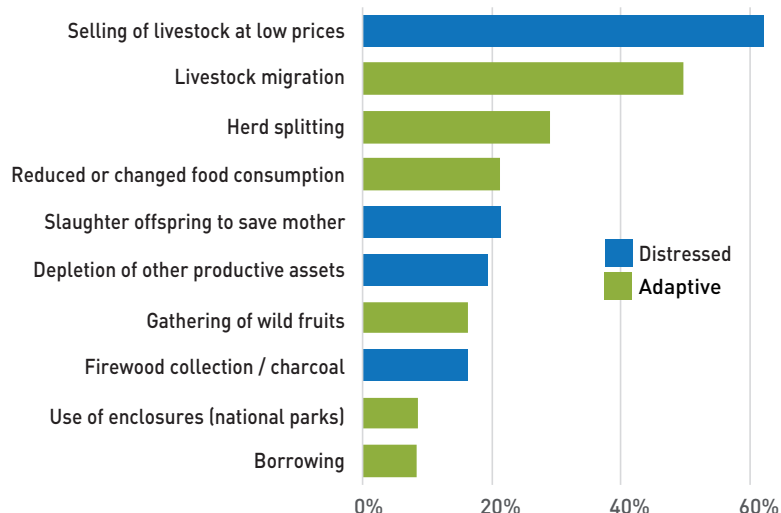
Respondents =  
315 pastoralists  
in 8 hotspots

Perception of what the pastoralist production system means (right).

**Figure 24**

Respondents =  
315 pastoralists  
in 8 hotspots

Percentage of respondents using ways to cope with drought or other stress



We asked what the pastoralist production system meant to them (multiple responses were possible). More than three-quarters (78%) said it had to do with making a living and creating wealth, while more than half mentioned tradition and the need to finance their children's education (**Figure 23**). More than two-fifths said they liked to take care of animals or cited the societal values of pastoralism. Smaller numbers mentioned things like conservation, a wish to become a respected elder, or a lack of other opportunities.

✓ The cultural wealth of pastoralists should be recognized so as to limit their international marginalization. It can also be converted into economic benefits: ecotourism, the sale of handcrafts and fair trade of pastoralist products are all promising complementary sources of income when properly managed and owned by the community.

## Food security

In most pastoralist regions only limited farming usually can take place, so pastoralists depend to a great extent on markets where they can sell or barter animals and livestock products to obtain cereals and other food-stuffs. Markets in pastoralist regions are often resilient to shocks, and still function even during man made (Somalia, South Sudan) and natural disasters such as droughts (Kenya, Ethiopia). In addition, livestock is a mobile assets and in case some areas are unsafe or affected by natural disaster pastoralists can move with their livestock somewhere else.

Although traded cereals are important for nutrition, pastoralists get 20–50% of their energy requirements and most of their micronutrients from their animals' milk (Sadler et al. 2009 and 2012). Cows, goats and camels produce a reliable daily supply of milk, though less during the dry season. Some pastoralists harvest blood (without killing the animal), which is mixed with milk to get a highly nutritional drink.

Parents keep milking animals close to small children to ensure they get the food they need. Many nutritional emergencies in pastoralist regions are also linked to the separation of children from the livestock herds. In some cases this is a side-effect of compulsory sedentary schooling, which was introduced in the 1980s and 1990s in several areas (Sadler et al. 2009).

When we asked our survey respondents in the eight hotspots how they adapted to drought, nearly two-thirds (62%) said they sold livestock at reduced price (**Figure 24**). Fifty percent mentioned migration, and only 29% said they split their herds. It is strange

that more chose distressed coping mechanisms that take longer periods to recover from, rather than adaptive mechanisms that do no harm. Impeded mobility may be the reason, forcing herders to rely more on the market.

✓ **The adoption of adaptive coping strategies during a disaster allows a faster recovery of the livestock-based livelihoods compared to distressed one. Considering the increasing occurrence of disaster in recent years, it is important for Governments and development/humanitarian agencies to support preparedness plans and to enable adaptive coping strategies.**

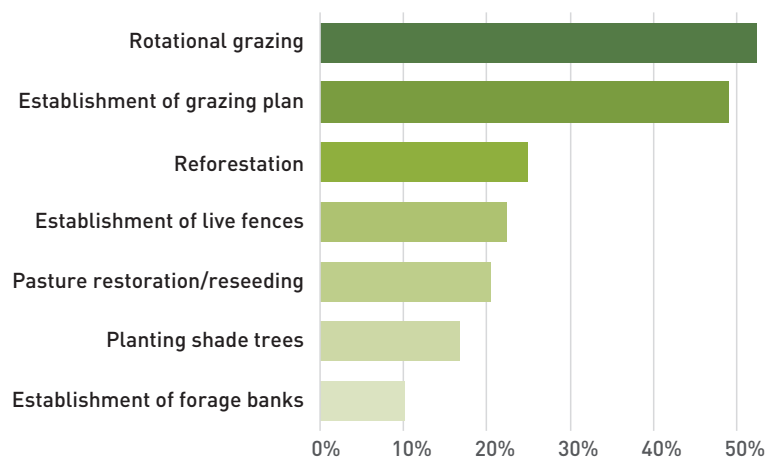
We also asked the pastoralists how they prepare for recurrent droughts. Fifty-two percent said that they used rotational grazing, while 49% have an established grazing plan (Figure 25). Smaller numbers mentioned reforestation, live fences, pasture regeneration, shade trees and forage banks.

✓ **As a lack of high-quality feed is a limiting factor in pastoral production, promoting forage banks could improve output, and therefore have a positive impact on pastoralists' food security and nutrition.**

**Figure 25**

Respondents =  
315 pastoralists  
in 8 hotspots

Percentage of respondents using techniques to prepare for drought



## Shade trees

Another way to increase production is to provide shade trees.

Shade can dramatically cut an animal's energy needs and increase milk production (2–4 litres more milk from cows with access to shade). At temperatures above 24°C, a rise of 1.2°C results in a 3% decline in feed intake, even though the animal needs to eat more because of higher respiration and evapotranspiration Argeñal-Vega (2011).

## Rangeland management

We asked the 315 pastoralists in the eight hotspots about their grazing arrangements. Nearly one-third (29%) had experience with reciprocal grazing agreements (Figure 26, left). Such agreements are historically managed by customary leaders. Official grazing rules, by contrast, are known by only 5%.

We also asked these respondents whether their area had various types of conservation measures. Four out of ten (39%) said that conservation practices were used; 34% mentioned dry-season reserves, and 33% controlled grazing (Figure 26, right).

Culture is important in managing livestock and rangelands. Pastoralists have a deep knowledge of animal breeds, and know which types of animals are suited to which conditions. They have whole sets of rules and decision-making procedures on how to manage grazing; these are more important in guiding behaviour than the official rules.

✓ **Development efforts should build on and support traditional pastoralist organizations. They should strengthen their skills in fundraising, lobbying and advocacy, organizational governance and gender issues. Support is also needed so these organizations can communicate with each other and coordinate their activities.**

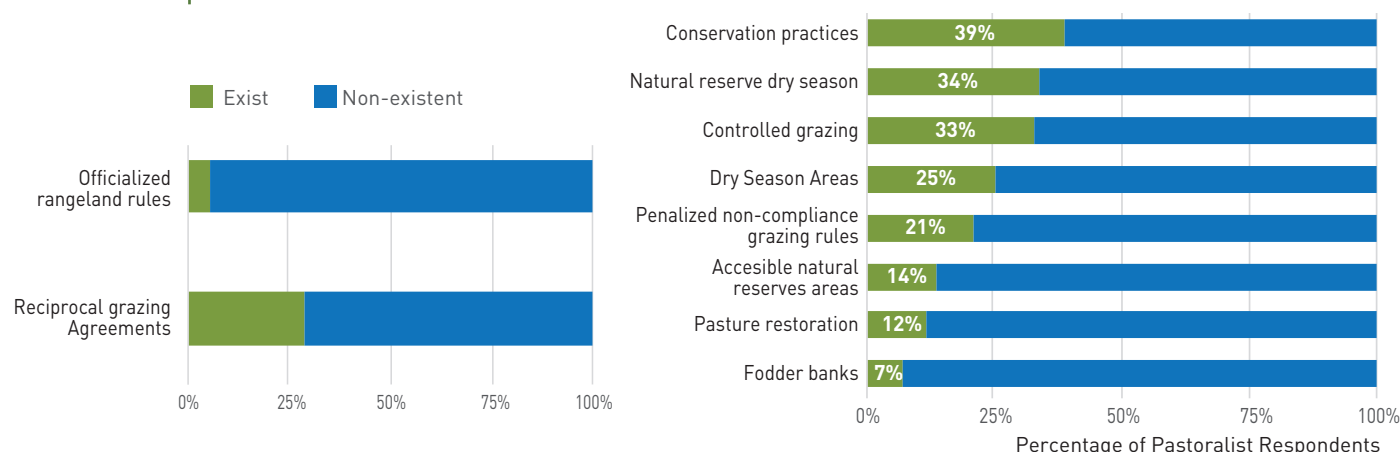
## Resilience

Pastoralists have their own ways of predicting extreme weather. These are often relatively effective and are very important for

**Figure 26**

Respondents =  
315 pastoralists  
in 8 hotspots

Rangeland management approaches: Grazing agreements and rules (left) and natural resource management practices used (right).



pastoralist communities, but they are too local and specific to provide a basis for humanitarian disaster responses.

Various scientifically based programmes predict drought and famine based on the state of the vegetation, weather records and forecasts, and anthropometric measurements that assess the level of human under-nutrition. They include USAID's Famine Early Warning Systems Network (FEWSNET) and the multilateral Integrated Food Security Phase Classification System (IPC). The Somalia Water and Land Information Management (SWALIM) was developed initially for Somalia but has been expanded into other African regions. FEWSNET has adopted the IPC methodology to standardize reporting.

These systems have accurately predicted several droughts and floods, but the humanitarian responses are typically delayed by 3–6 months, by when conditions may already have improved again. Such delays reduce the effectiveness and raise the cost of the intervention.

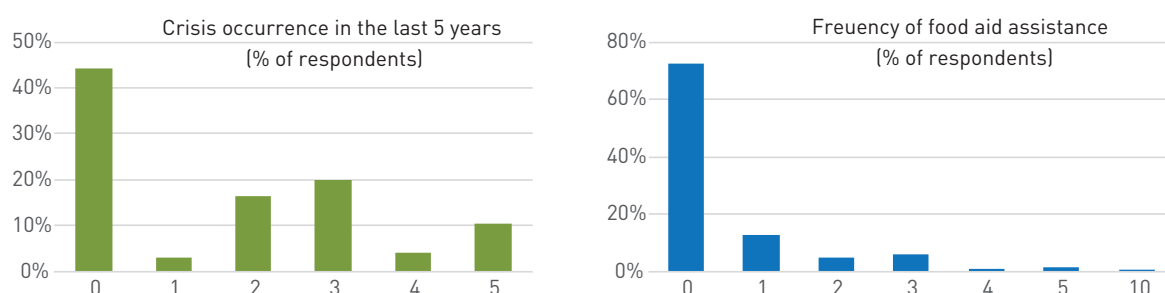
The International Strategy of Disaster Risk Reduction (UNISDR) proposes a coordinated approach by governments to prepare for disasters and to assist people in need. But planning is still inadequate and responses come too late. Recurrent droughts have made emergency food distribution more common, undercutting prices. Traders of staple crops have little incentive to travel to pastoralist areas, and fewer lorries are available to transport pastoralists' livestock to urban markets. At the same time, people are attracted to settle near food-distribution centres, where they become reliant on handouts.

We asked our respondents how often they had experienced a crisis in the last 5 years. Forty-four percent said they had done so, and nearly all of these had seen more than one crisis (**Figure 27, left**). Despite this, only 27% had received food aid (**Figure 27, right**). This might reflect a shift by relief organizations away from handouts to more appropriate measures.

**Figure 27**

Respondents =  
315 pastoralists  
in 8 hotspots

Frequency of crises and of food assistance in pastoral territories

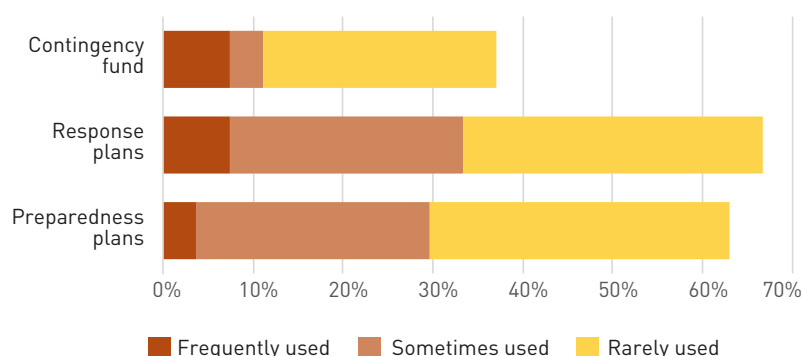




**Figure 28**

Respondents = panel of experts in 26 countries (enabling environment)

### Availability and use of disaster-preparedness measures



Traditionally, aid agencies have tried to build resilience by digging wells, drilling boreholes and vaccinating or treating livestock. But in 2006, an assessment by the International Livestock Research Institute (ILRI) showed that many of the veterinary interventions supported by the European Commission had come too late or failed to have a long-lasting impact. Some were even harmful (Watson and Notenbaert 2006).

A decade ago, a rethink by major humanitarian agencies, including DFID, ECHO and OFDA, has focused on strengthening community resilience by increasing local disaster-management capacities, strengthening markets and political and governance structures. Local preparedness planning is the most critical pillar of such community-managed disaster risk reduction (IIRR et al. 2004). The United Nations Office for Disaster Risk Reduction (UNISDR) published a new participatory approach in 2012 with the inputs of pastoralists and experts (Lesukat 2012).

Merging the approaches of community-based and traditional governmental responses advocated by UNISDR leads to the creation of a community (or district) inventory of possible responses and the identification of local capacities. This might include inventories of lorries, functional wells and markets, and lists of technicians and contact details of service providers and suppliers. The potential scenarios and vulnerabilities are demarcated and barriers are identified.

Because of the time lag between the start of a disaster and the arrival of outside help,

the first responses will probably have to come locally. The outside response then has to be coordinated with and build on the local actions. That in turn means planning beforehand what to do, who will do what, and how to pay for it.

In our survey of the enabling environment in 26 countries, we asked key informants whether preparations for disasters had been made. We categorized aspects dealing with plans to prepare communities for disaster times, including disaster resilient infrastructure and other capacities, followed by pre-approved response plans based on a specific scenario and the existence of pre-allocated contingency funds, which are available to respond within short time. Two-thirds of the informants said that response or preparedness plans existed (**Figure 28**). About one-third said the plans were used either “frequently” or “sometimes”. Slightly more than one-third said contingency funds had been allocated; about 10% said these funds were used frequently or sometimes.

✓ **Response or preparedness plans have been established fairly recently; they promise to increase the resilience and adaptive capacity of people in the drylands. Efforts are needed to strengthen resilience of pastoralist communities to climate change by supporting local climate-related disaster management capacities. Ways to create local resilience include joint efforts with the local communities and governments, planning for disaster-preparedness and response, and emergency funds.**

## Basic services

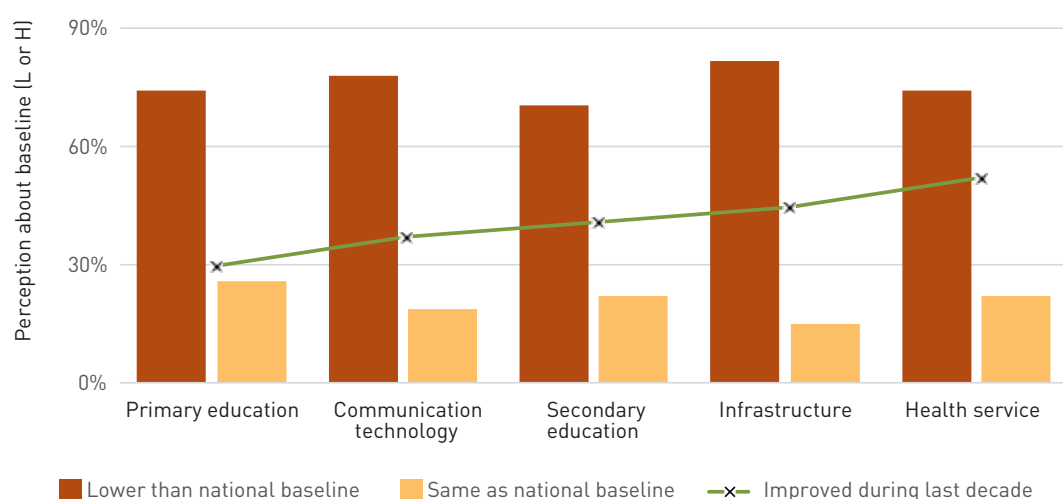
Access to appropriate basic services is also vital for people to prepare for and prevent disasters. Such services include renewable energy, mobile health and veterinary services, communications, mobile schools, safe water for humans and animals, and index-based insurance (WISP 2015). But pastoralist areas tend to have fewer, and lower-quality basic services than elsewhere (Bushell 2010).

This is confirmed by our panel of experts

Figure 29

Respondents = panel of experts in 26 countries (enabling environment)

## Opinions of the provision of basic services in pastoralist areas



in 26 countries. The clear majority said that primary and secondary education, communications, infrastructure, and health services in pastoralist areas were all below the national baseline (**Figure 29**). Among this gloom, a bright spot was that between 30 and 52% thought that the services had improved over the last decade, with most saying that the health services had got better.

## Education

Literacy rates are low in many pastoralist communities. In north-eastern Kenya, only one-third of children attend primary school: less than half the national average (**Table 12**). For secondary schools, only 2% do so: one-sixth of the national figure. These low figures are still an improvement over the 2% literacy levels in pastoralist regions during the 1980s.

The lack of schools is not the only constraint. For many teachers and other public

servants, assignments in pastoralist areas are unappealing. Many suffer from low motivation, and staff often look for opportunities elsewhere.

In **Nigeria**, approximately 10 million people (8% of the total population), including about 3.6 million school-aged children, live in pastoralist communities. The National Commission for Nomadic Education estimated that in 1990 the literacy rate among Nigerian nomads was just 0.02%.

In the Afar region of Ethiopia, the literacy rate for adults was 25% in 1999, but only 8% in rural pastoralist areas (UNESCO 2006).

Delivery of formal education has so far shown little capacity to reach children in pastoralist systems (UNESCO 2010). With a few exceptions (notably Iran and Mongolia), education has been offered to pastoralist children as a way out of pastoralism. Delivery of education through schooling has been used to support policies of sedentarisation, forcing pastoralist households to split or settle in order to access the service (Krätli 2001; Dyer 2006; Dyer 2014). Mobile schools and alternative basic education are options that do stretch the schooling model to accommodate some of the conditions of the pastoral context; but adequately filling the positions in mobile schools, or stopping alternative basic education schemes from drifting into under-resourced versions of schooling, is proving a serious challenge. Even the most bespoke programmes offer only the first years of primary education, as a way of channeling

Table 12. Social services in North Eastern Province, Kenya, 2003

SERVICE PROVIDED	NORTH EASTERN (%)	NATIONAL AVERAGE (%)
Primary education net attendance	36	79
Secondary education net attendance	2	12
Electricity at home	3	16
Access to safe drinking water	10	56
Women using antenatal care	32	90
Vaccinated children (12–23 months old)	54	93

Source: Bushell (2010)

children into standard schools (Krätli 2009).

Approaches alternative to the schooling model such as distance education and home learning do exist (Krätli and Dyer 2009). In 2009-2010, a collaboration between the Kenyan Ministry of Education and the short-lived Ministry for the Development of Northern Kenya and Other Arid Lands explored distanced and family-based learning as alternatives that enable delivery of a full course of primary education, equal in quality and status to schooling, to the 'hardest to reach' individual children in pastoral systems and their families. These have yet to be piloted (MDNKOAL 2010).

✓ **Health and education services are needed that are adapted to the mobile lifestyle of pastoralism. These services may be mobile themselves, or offered at convenient locations, for example, at different fixed sites in each season.**

## Gender issues

Women are beginning to play a larger role in pastoral societies, partly by default as men look for work elsewhere and young people abandon this livelihood. This is particularly true in Northern Africa and Western Asia. Many young people have migrating elsewhere from Morocco, Sudan, Tunisia, Turkey, and Western Sahara. In some areas, young people find alternative employment as members of militias.

Over the last two decades, gender stud-

ies have become more common in livestock-based and pastoralist societies, but they are still extremely scarce. Most of this literature has been generated by the Consultative Group of International Agricultural Research (CGIAR).

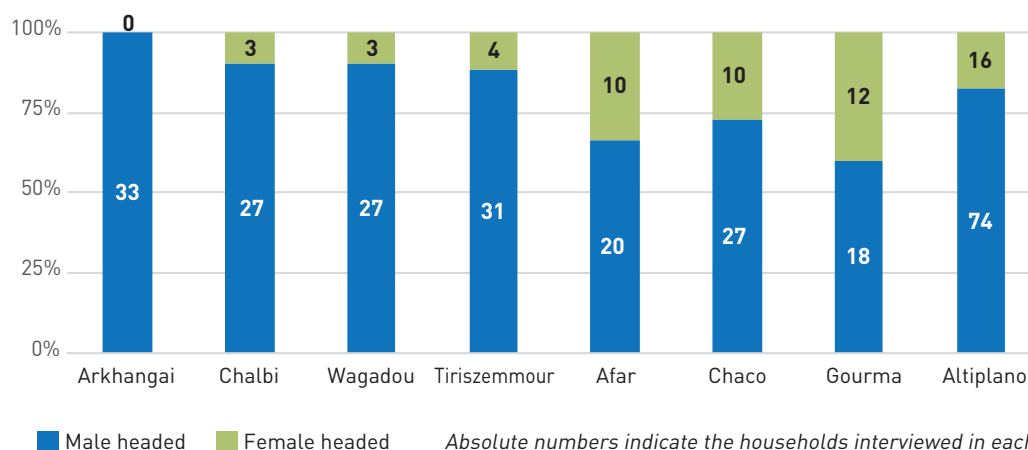
We wanted at least 1/3 of the respondents in our survey of 315 pastoralist households in the eight hotspots to be women so we could be confident that we were measuring a representative cross-section of the society. This did not necessarily mean that the household had to be female-headed. In fact, 18% of the 315 pastoralist households were female-headed. The highest numbers of female-headed households were in the West African Gourma (40% of the interviewed households) and Eastern African Afar (27%), while in the Altiplano (17.8%) and Chaco (27%) we also found fairly high levels (Figure 30). That this figure is high may also mean that women perceive themselves as equal to the men or as the household head, since the men were herding the animals elsewhere.

Although women are major contributors to the livestock economy and may manage part of the production, they face various constraints, including limited access to land, water and credit. They may not own or have either formal rights to land or livestock; even if they do, cultural norms may effectively deprive them of such rights. They find it more difficult than men to supply profitable markets and generate income. A lack of information on market prices leaves them with limited decision-making power. Services and input systems tend to be male-dominated and

**Figure 30**

Respondents =  
315 pastoralists  
in 8 hotspots

Distribution of  
gender of the  
household lead  
in surveyed  
pastoralist  
households



*Absolute numbers indicate the households interviewed in each hotspot.*



tailored to men's needs. Women also often find themselves in unequal power relations within the household (IFAD 2009, Njuki 2013).

FAO (2011a) argues that if women and men had equal access to resources, agricultural yields would rise by up to 30% and consequently agricultural output by up to 4%. But women may lose control as productivity rises and products are marketed through organized groups, such as cooperatives whose membership is dominated by men. In addition, the types of products and distance to markets can influence the level of control women have over products and the income derived from their sale (Njuki et al. 2011).

It is not easy to find institutions led by pastoralist women to press for women-specific issues within pastoralist communities. Often such organizations specialize on topics such as savings and loans, fodder production and home-gardening. Efforts to strengthen and support pastoralist associations and customary institutions must therefore be carefully assessed for their involvement of women and their objectives, which may be to encourage women to settle in one place. Ensuring that women are included in pastoralist organizations and civil society networks is essential; if missed, women may lose out.

In general, women have a higher probability of owning and selling small livestock than large animals, and of benefiting from the resulting income.

The traditional way to support pastoralist women has been by promoting income-generating activities, which include microfinance and saving schemes, value addition to animal products, making bead jewellery, etc. Women

do not always benefit from better services if they settle in one place. Services are often poor, and in settling, women lose access to the bulk of the herd. This has significant costs in terms of their social status and their control over milk for children and to sell.

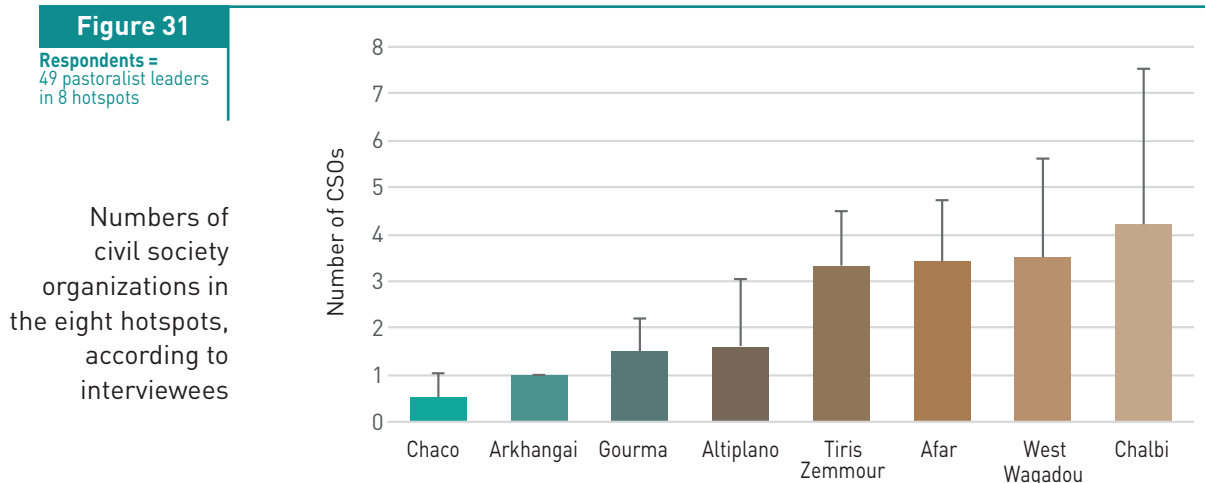
✓ More effort is needed to promote women's ownership of and access to means of production and their ability to make decisions, and to stimulate organizations that champion the interests of women pastoralists.

## SOCIAL CAPITAL

Social capital refers to systems, networks, institutions and services belonging to the society which contribute to the pastoralist well-being. We have already discussed some aspects of social capital in the previous section, as people are not separate from the services they render.

### Civil society

We asked our respondents in the hotspots how many civil society organizations were operating there. The average was 2 ( $\pm 1.9$ ), with higher numbers (and high variation in opinions among the respondents) in the Eastern and Western African hotspots: Chalbi, Afar, Wagadou and Tiris Zemmour (Figure 31).



Traditional institutions can be empowered in various ways: by respecting indigenous knowledge, recognizing pastoralists' contributions to genetic conservation of livestock, enabling knowledge sharing and networking, certifying pastoralists in sustainable management and ensuring the application of the principle of Free, Prior and Informed Consent for proposed development projects (WISP 2015).

In the section on political capital we gave an overview of the empowerment of pastoralists as a pathway out of marginalization. We concluded that more effort is needed to achieve adequate empowerment and participation in public decision-making. This is best achieved by strengthening and supporting civil society – pastoralist associations and customary institutions.

## Pastoralists' call for a stronger civil society

In the Eastern and Southern Africa consultative process, the representatives made the following recommendations:

- Strengthen pastoralist organizations, associations, civil society networks at local, national, regional and global levels (coordination, exchange and exposure visits, etc.)
- Support training in resource mobilization, lobbying, advocacy and governance for the local pastoralist organizations, associations and civil society organizations.
- Promote gender mainstreaming through the inclusion of women in pastoralist organizations, associations and civil society networks.
- Support the development of a coordination system for pastoralists
- Support country and regional secretariats for pastoralist organizations, associations, and civil society networks.

According to Asian pastoralists representatives, local and indigenous knowledge and capacities should be protected and valorised, not only through virtual hubs, but also through more practical and tangible platforms (such as pastoral knowledge centres), especially concerning animal production, agriculture, and management of range resources. Policy dialogue should acknowledge and respect the rights of indigenous people over land, territory, customary laws, culture (language, social, norms and traditions), including the recognition of indigenous and community conserved areas.

The consultative meeting for West African pastoralists in Bamako said that a space was needed for dialogue between networks and organizations of West African livestock keepers and pastoralists. This would:

- Defend the interests of livestock farmers, pasto-



The consultative meeting for West African pastoralists in Bamako

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ralists and their heritage

- Ensure that livestock and pastoralism were considered in public policy at all levels: international, regional, national and local
- Influence public policy, especially at the local level.

The meeting also urged civil society representatives and NGOs at the regional and international levels to provide more support to networks of pastoralist organizations. This will promote constructive multi-actor dialogue and create a better space for advocacy and lobbying to influence policy, including building gateways with other organizations and initiatives for livestock and pastoralism outside Africa. European actors and the FAO Pastoralist Knowledge Hub were mentioned specifically.

The North African and Western Asian meeting in Hammamet, Tunisia, added that investments should also help community organizations improve services to pastoralists. New pastoral institutions were needed that were based on existing social structures and to enhance their capacities.

The participants to the Latin America consultation meeting, held in La Paz, Bolivia, made a call to:

- Promote the strengthening of producer organizations at the local, provincial, regional and national levels, so they can make pastoralists' voice heard, and their demands respected.
- Formalize those organizations so that they can have legal status.

The most common civil society groups in pastoral areas are water users' associations, community animal health networks, marketing associations, village saving and loan schemes, faith-based organizations, natural resource management groups, community development organizations. The last can play a powerful role if they are contracted by the government or development actors to implement projects, and by being active in advocacy.

✓ **Pastoralist organizations and civil society groups need to be strengthened and empowered so that they can effectively represent pastoral communities, contribute to political dialogue, and influence policymakers and legislation. These organizations can be empowered by including them in decision-making processes and supporting their work to render services to the community.**

## Services to pastoralists

Below we assess the various services to pastoralists in the 26 countries covered in our household surveys. These services are delivered by civil society, local governments or private-sector companies, some (such as animal health services) in collaboration between two or more of these. **Figure 32** shows the availability of pastoral services in the 26 countries as perceived by interviewees from organizations in the enabling environment.

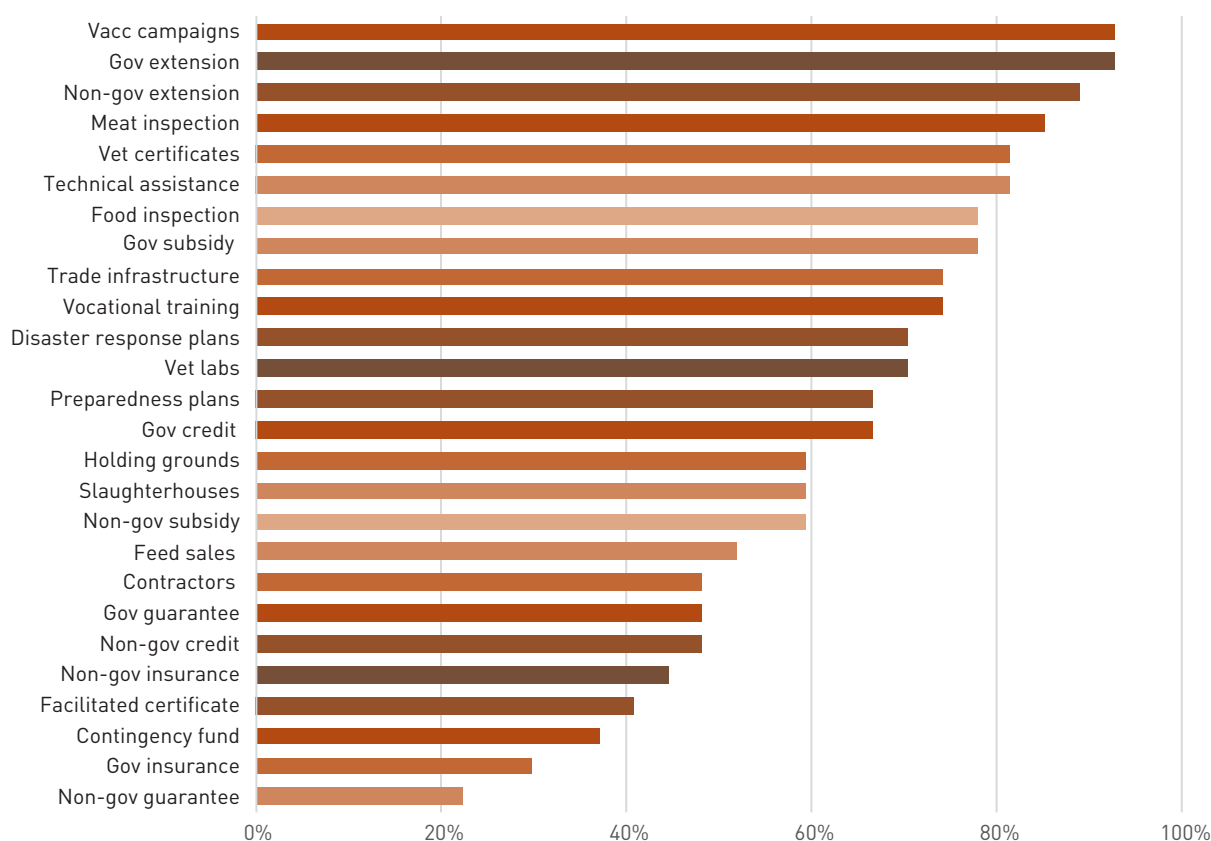
The most common services are vaccination campaigns, extension, and controls of various sorts. Social services (insurance, subsidies), financial and marketing services are ranked rather low.

We asked our interlocutors in the 26 countries which services from the financial sector were used and under which frequency (**Figure 33**). The feedback we received showed

**Figure 32**

Respondents = panel of experts in 26 countries (enabling environment)

Availability of pastoral services in 26 countries, as perceived by representatives of advocacy groups, public servants and international NGOs

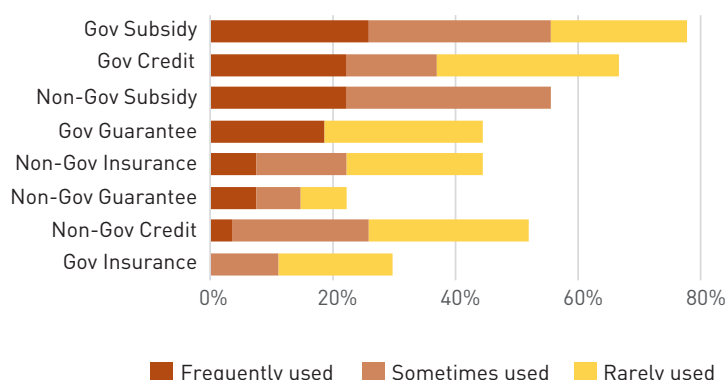




**Figure 33**

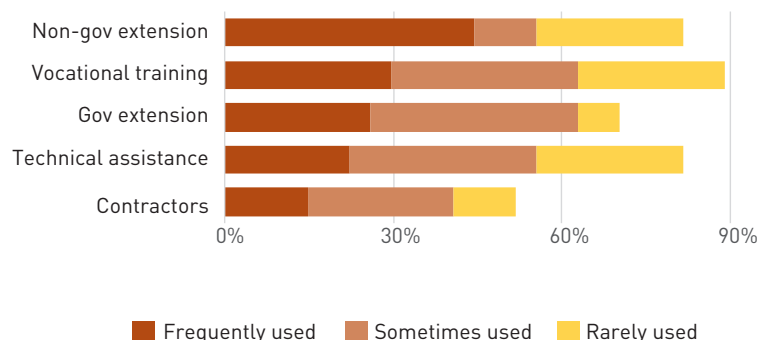
Respondents = panel of experts in 26 countries (enabling environment)

Frequency of using services from the financial sector

**Figure 34**

Respondents = panel of experts in 26 countries (enabling environment)

Availability and use of extension and adult education services



that subsidies are an often used instrument in pastoralist regions, provided both by public bodies and by non-governmental organizations. Credit and guarantee schemes were as well frequently used instruments, mainly provided by public institutions. Insurances, both from non-governmental organizations and from the public sector were rarely used.

## Extension services

Extension services have always been scarce in pastoralist areas, but they became scarcer during the IMF-imposed structural adjustment programmes of the 1970s and 1980s. In most countries they have never recovered.

Nongovernment organizations have often stepped in to take their place. Of our 26-country panel of experts, 44% said that NGOs frequently provided extension services, while

only 26% said that the government did so (**Figure 34**). But when we asked pastoralists themselves where they got information, 49% said they used government sources, and only 9% mentioned NGOs. It is possible that NGOs support extension services with funds and logistics, but the services themselves are delivered by government staff.

Our respondents in **North Africa and Western Asia** said that services such as extension, animal health and training provided by the state are often inadequate and poorly tailored to local needs. Pastoral associations, which get support from the government to provide services, play a big role in linking herders with governmental services. In Morocco, ANOC (Association Nationale Ovine et Caprine) has 30 associated organizations, while SGBAT (Sheep and Goat Breeders Association) in Turkey has 80 member associations.

✓ Pastoralists need improved skills if they are to add value to their output. Relevant skills include ways to conserve meat and dairy products, and fodder production. Creating linkages with the local private sector and to markets would also help. Live-animal markets tend to be inefficient; they could be improved by providing managers with business-management skills, improving transparency and creating links to financial institutions. Training in entrepreneurial and marketing skills is also needed to diversify pastoral production and livelihoods. Such interventions are critical to retain young people on the rangelands, where outmigration is intense and generational turnover difficult.

## Social protection and safety nets

Social protection and safety nets aim to:

- Protect households from the effects of reduced income and food shortages
- Prevent livelihood deterioration by reducing vulnerability and protecting households from “shocks”
- Promote and transform livelihoods to become more sustainable.



In pastoral regions, the following forms of social protection and safety nets exist (Ali and Hobson 2009):

- **Social assistance** is typically non-contributory transfers to recipients who are eligible on the basis of their vulnerability or poverty. For example, during drought, poor pastoralists in Ethiopia, Somalia and northern Kenya may receive unconditional transfers (cash, food, productive assets). Conditional social assistance programmes such as food aid, food for work, cash for work and destocking are controversial in terms of their effectiveness (irregularity, unpredictability, inappropriateness).

- **Social services** are provided by the state to citizens as a right. They include health and education, clean water and sanitation. In pastoralist areas, animal health and market access might also be classed as social services. Critics say that in pastoral areas, poor, marginalized groups are often excluded (Ali and Hobson 2009).

- **Social insurance** enables individuals to pool their resources to provide support in the case of a shock to their livelihoods. It may include index-based livestock insurance, contributory pensions, health insurance programmes, and informal group arrangements such as village saving and loans schemes.

- **Social equity** aims to protect people against social risks such as discrimination or abuse. It is usually legislative in nature.

The African Union has incorporated social-protection programmes into its pastoral policy and coupled them to risk management for climate change, livelihood diversification

and enhanced environmental health and ecosystem services (AU 2010).

Livestock insurance is generally available as individual policies or is index-based. **Individual policies** pay out in case of livestock loss and have the advantage that they compensate for the specific damage. Their disadvantage is the high transaction cost of verification and the tendency to face moral hazard: the danger that deaths that are reported did not actually take place. **Index-based** insurance is based on the weather, vegetation data or mortality figures; the policy pays out if these surpass pre-identified thresholds, regardless of whether the pastoralist has lost any livestock. This rewards “good behaviour”, such as avoiding risk. On the other hand, an owner who loses animals without the threshold being surpassed will not receive any compensation. Similar types of insurance for crops has existed for many decades, but index-based livestock insurance is less common.

Both types of insurance may be run by public or private-sector entities. Although it might be argued that private sector provision is more efficient, safety nets are typically a public responsibility. Mongolia has experience with public sector index-based livestock insurance since 2006, and Peru, Argentina and Uruguay since 2013. In Kenya, a private-sector model of an index-based livestock insurance has been tested since 2007, involving ILRI, Equity Bank and Munich-Re. Index-based insurance seems to have fewer transaction costs but is vulnerable to fraudulent behaviour in case of a pay-out, since it is not easy to supervise large amounts of money in rural zones.

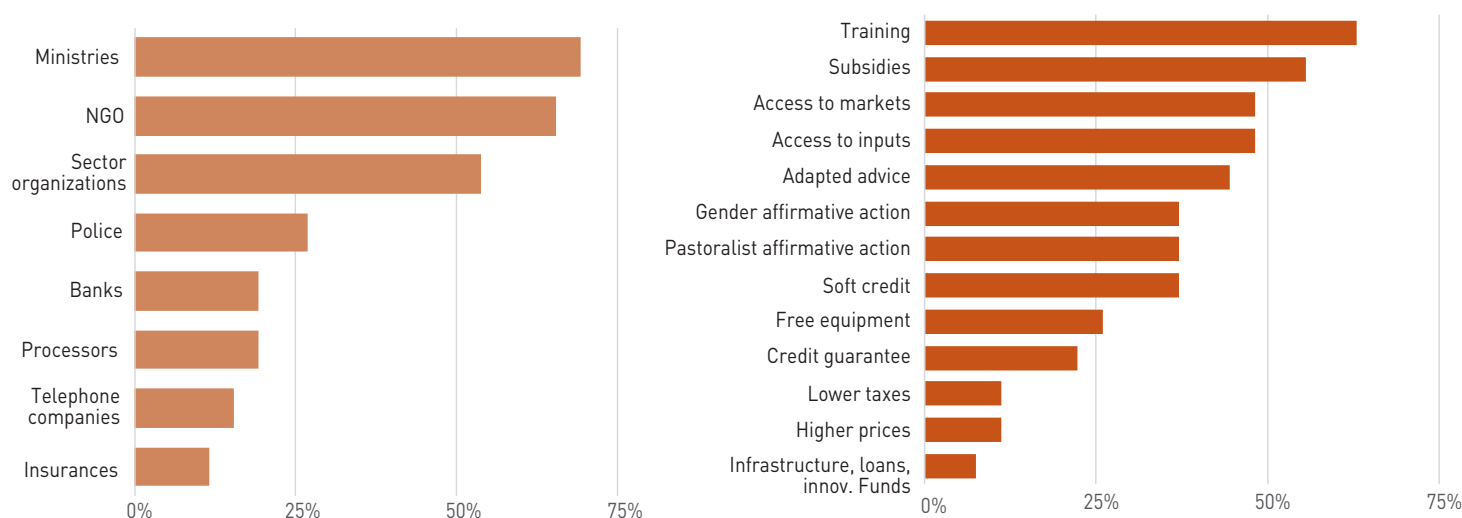
## Incentives for integration

Governments and development organizations have various ways they can stimulate pastoralists to integrate more in the national economy and to comply with rules (such as food safety). These incentives include affirmative action, cultural recognition, easier bank access, improved private-sector conditions (mobile phones, insurance), logos, certification, fines against illegal taxes, government action against rent-seeking behaviour, etc. We asked the interviewees in the 26 countries which organizations used such incentives, and which type of incentives they employed.

**Figure 35**

Respondents = panel of experts in 26 countries (enabling environment)

Percentage of interviewees stating that particular types of organizations provide incentives to stimulate integration by pastoralists (left) and type of incentives provided (right)



Ministries and NGOs were the most commonly mentioned organizations, named by 65% or more of the interviewees (**Figure 35**). The most common types of incentives were training, subsidies, and access to markets and inputs. Social institutions involved in live-stock marketing aim to enhance innovation, generation, and utilization of technologies, capacities, and entrepreneurship skills of value-chain actors. Supporting this impulse is a main pillar of the new African Union livestock development strategy (AU 2014). Financial instruments such as loans, credits, lower taxes were not mentioned by as many respondents.

## Funding of services

Social services depend to a great extent on their financing source. The most common source are the members of society themselves, as village saving schemes, community animal health networks and water-user committees demonstrate.

✓ **Services financed by the community are the backbone of social services in pastoral areas. Governments, humanitarian actors and development agencies can use it as a base for safety nets or incentives.**

In times of disaster, emergency funding kicks in: external sources may give out food or unconditional cash to the poorest, set up asset-protection programmes, and offer incentives for other types of support.

Cost-sharing is an important approach used by development actors. This is based on the idea of sharing the cost of inputs among different actors. For example, in an animal health scheme, a donor may finance the inputs (vaccines, drugs, wells, etc.), the government provides the staff and infrastructure, while pastoralists pay a fee to cover part of the costs for the service. Such fee recovery provides the missing funds while leaving the traditional government structures in place.

Leonard (2004) argues, however, that this has all the negative effects of the market and few of the positive ones. Cost-recovery fees impose a price on the producer but do nothing to change the incentive structure governing the public system, so often leave it inefficient and unresponsive. There is a danger that the funds from the fees are lost in the government accounts or evaporate through corruption. Even if the fees do generate adequate stocks of veterinary supplies, functioning transport and better salaries, they leave the problem of ineffective public-sector management unresolved. In the worst case, the staff may continue to provide veterinary products without charge, use government vehicles for





non-official purposes, are careless in maintaining equipment, and respond selectively to calls for service. Levying fees does not create incentives for government providers to be more efficient and responsive in their duties.

## Animal health services

In general animal health is a critical issue as it may decrease herd productivity as well as it affects the value and price of final products. According to de Haan (2004), animal health services in pastoral settings are exposed to a continuous changing environment of policies, trade, and institutions. There are large structural changes ongoing in the livestock commodity chain, with implications for the definition and control of food safety standards. Increased risk of disease transmission is one of the consequences of globalization, through increased travel and trade between different countries and continents. Animal health services across the world need to adjust to this circumstances and rethink their public roles. However, public institutions must deliver essential animal health services to the poor or marginalized and provide the policy framework that ensures that structural changes in the livestock commodity chain is executed in an equitable and sustainable way, along with an acceptable level of health risk for the consumer of the commodities (de Haan 2004).

The increasing focus of international and national development policies on poverty creates big opportunities for efforts to develop pastoralism. More than 600 million poor, living on less than one dollar a day, have live-

stock as a major source of their livelihood. The international community is increasingly aware that livestock development, and in particular disease control, must be an integral component of pro-poor agricultural growth. The challenge is to develop well-articulated, pro-poor livestock-development plans, and convincingly articulate them in national policy- and priority-setting discussions.

✓ Investments in animal health services are extremely important to pastoralists, not only to protect their livestock assets but also because such services are often the only link to public institutions. As with other services, animal health services need to be adapted to the herders' mobile lifestyle. As potential change agents, animal health service providers can bridge the gap between pastoralists households with policymakers. Animal health services are in high demand in pastoralist societies. We need to find ways to enable pastoralists, the private sector and public services to work together to fill gaps in coverage.

Common recommendations to support animal health with a focus on trans-boundary animal diseases include continuous surveillance, diagnosis, treatment and vaccination.

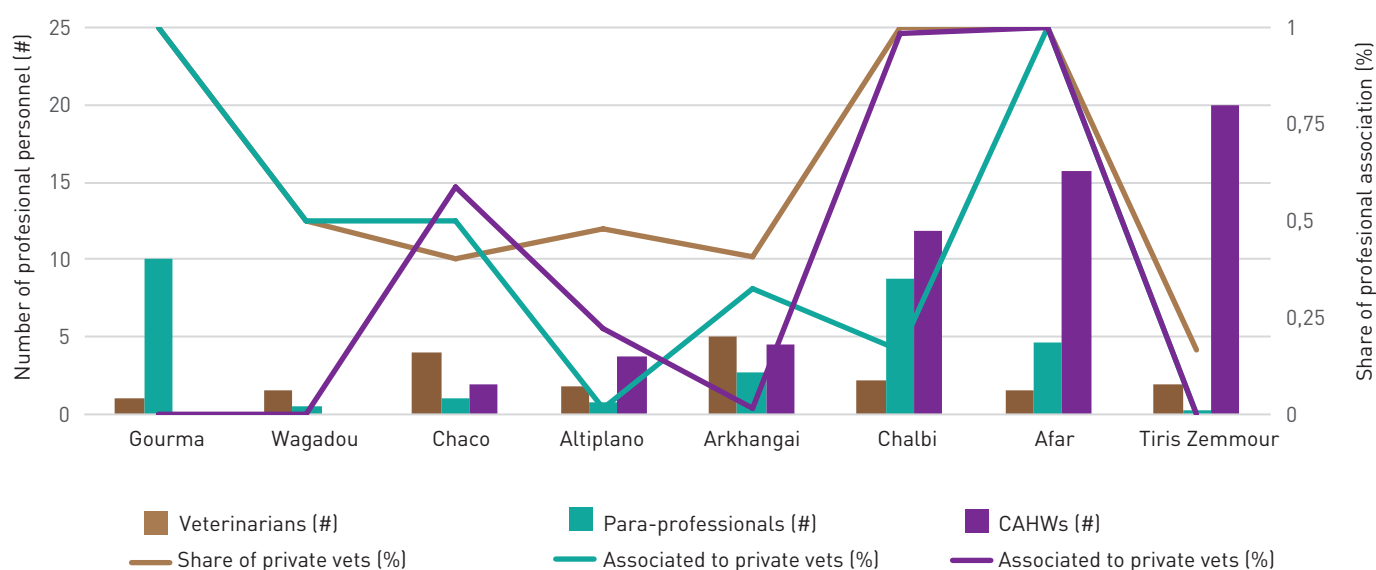
They include:

- the creation of regional disease-free zones
- capacity building of animal health service providers and systems (community-based animal health workers, para-vets or veterinary para-professionals etc.)
- trans-boundary coordination for animal health service delivery and surveillance
- rural animal health facilities (drug shops, extension services, linkages with suppliers, etc.)
- livestock drug-quality control (regulatory frameworks, drug storage, etc.).

**Figure 36**

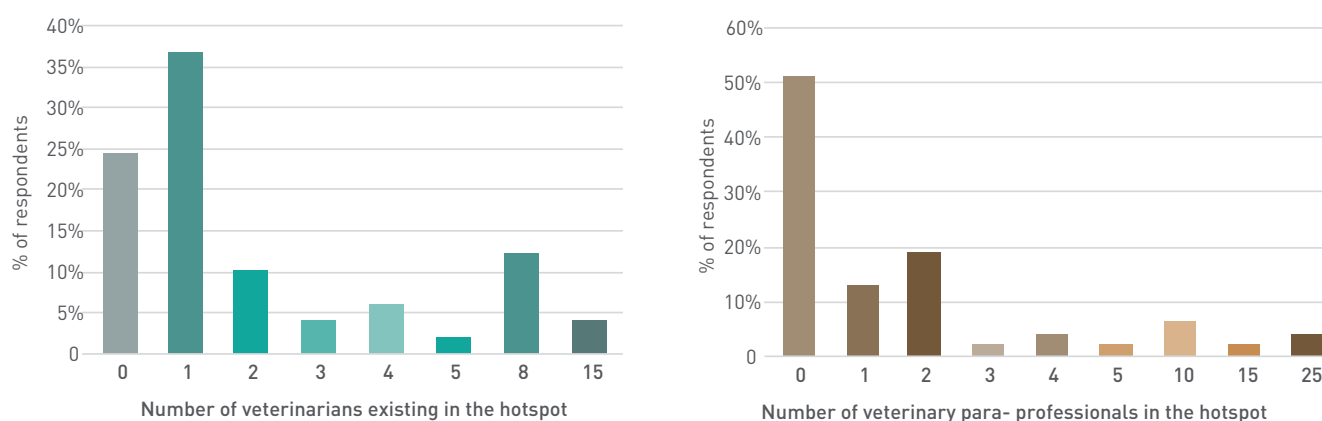
Respondents =  
49 pastoralist leaders  
in 8 hotspots

Numbers of animal health professionals (in columns) and their share in the institutional set-up of the animal health personnel (in lines)

**Figure 37**

Respondents =  
49 pastoralist leaders  
in 8 hotspots

Percentages of respondents reporting how many veterinarians (left) and paraprofessionals and community animal health workers (right) were in their territory.



## Animal health personnel

We asked our respondents in the eight hotspots about the number of veterinarians, paraprofessionals and community animal health workers in their territories. Respondents in the Arkhangai and Chaco regions reported the most veterinarians (but they knew of only 4 or 5); those in Gourma knew of only one (**Figure 36**). More than half of our respondents knew of only one veterinarian in the territory (**Figure 37**), and half did not know of a single paraprofessional working in animal health. For community animal health workers, respondents in Gourma and Waga-

dou knew of none; such individuals seem to be a lot more common in Chalbi, Afar and Tiris Zemmour. Most of our informants said there were between 2 and 5 such workers in their territory.

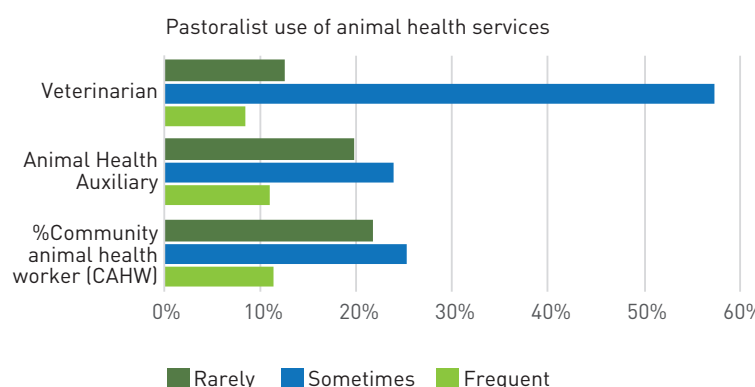
The organizational setup of animal health personnel differs greatly from one hotspot to another. In Gourma, Chalbi and Afar, all the vets were in private practice (**Figure 36**). The use of paraprofessionals and community animal health workers linked to private vets seems to be most common in the two East African 'hotspots'.

Only about 10% of the pastoralists we questioned said they frequently used the services

**Figure 38**

Respondents =  
315 pastoralists  
in 8 hotspots

Frequency of consulting with animal health service providers in the hotspots



of a veterinarian, animal health auxiliary or community animal health worker (**Figure 38**). Nearly 60% said they “sometimes” consulted a vet, compared with only around 25% who saw an auxiliary or community worker.

The general picture shows that veterinarians are the most important pillar in providing animal health services, but they have an extremely thin presence. Private practice and the use of community animal health workers seem to be most important in East Africa.

For example, in the Afar region of Ethiopia animal health services exist but are insufficient to meet needs due to a lack of personnel and limited geographical coverage. Poor roads and communications restrict access to the remote grazing areas, while long-distance and diverse migration patterns, limited budget and staff, a lack of infrastructure and a paucity of reliable information on needs make it difficult to plan and deliver adequate services.

The low number of consultations by para-professionals and community animal health workers is surprising considering the larger number of these types of personnel and the longstanding support devoted to training them. One possibility is that such individuals stop working after project support ceases.

✓ The role played by community based animal health workers or veterinary para-professionals especially in remote areas is vastly recognized and shall be supported both with appropriate legal frameworks to assure quality

service delivery and economic sustainability. Linkages with the public sector for supervision and extension purposes and with the private sector for veterinary inputs provision shall be strengthened.

## Food safety and biosecurity

Many pastoral countries aim at increasing commodity exports as source of hard currency, in spite this many pastoral countries actually import meat to satisfy demand from their growing urban centres. Regional exports are far more realistic and feasible than long-distance trade, and such exports are an opportunity to apply higher standards along both, internal and export value chains. Export markets though are demanding, and protection against diseases are often used as non-tariff barriers to trade. The urban markets in many countries are also becoming stricter in terms of quality assurance systems and food safety. For pastoralists, serving such markets poses major challenges.

One approach is to adapt livestock and disease-control policies to enable international trade from mobile pastoral systems. The international reference standards for animals or foodstuffs are based on those developed by the World Organisation for Animal Health (OIE) and the Codex Alimentarius of the Food and Agriculture Organization (FAO). Such rules make it possible for countries to trade internationally and to increase their exports, but they also impose constraints: they require effective, official veterinary control measures, without which a country cannot sell animals or animal products on international markets. These constraints are especially strict for pastoralist areas in developing countries, the very countries that are in greatest need of international markets. The regulatory activities of FAO and OIE should be increased, as should the participation of individual countries and the regional organizations to which they belong.

The choice between a uniform or a two-tier system for domestic and export markets then becomes a major point of discussion. Trade-offs in terms of increased exports and greater health benefits for affluent, urban consumers have to be balanced with the increased costs



that the stricter food safety regulations entail. There are two options to enhance trade (Connor 2009):

- Alignment of disease-control policies with the standards of livestock markets within the region. These may be more realistic and easier to attain than the international standards.

- A certified labelling system through which animals can be traced to their source, a strict animal-health regime (which could be implemented by supervised community animal health workers) in which treatments are recorded, and the slaughtering of animals (and the removal of all bones and lymphatic tissue) in abattoirs which comply with international standards. Such a system would allow the export of meat from animals produced in pastoral systems anywhere in the world.

To prevent the spread of animal diseases through international trade, imports are restricted of live animals and livestock products from countries where there have been outbreaks of transboundary animal diseases. The establishment of disease-free zones, inspired by examples from Southern Africa prevail. However, there are doubts whether this approach will achieve compliance with international zoo sanitary standards. Already in Southern Africa, the concept of a commodity-based approach to trade in livestock products is being re-assessed. The commodity-based approach is based on the argument that different livestock products present different risks for the transmission of pathogens affecting animals and humans. Matured meat presents a much reduced risk of disease transmission than bones and lymph nodes. A commodity based approach requires though the adequate capacity (professional personnel and infrastructure) in pastoral lands. The method has gained ground in recent years by the recognition in the AU Framework for African Food Security (CAADP) and the World Organization for Animal Health (OIE).

According to Connor (2009) the commodity-based approach is proposed for trade with de-boned beef, from which lymph nodes and BSE risk material have been removed. It is argued that this product can be safely traded internationally, irrespective of the transboundary animal disease status of the place of origin, since risks have been appropriately mitigated.



Processing of the meat would provide additional safety in terms of human food safety. Although the rationale of this approach has been accepted and OIE promoted the development of new standards (OIE/AU-IBAR 2004), such standards are not yet in place.

✓ Such a commodity-based approach in livestock trade does not only reduce the risk of disease transmission, but also strengthen local economy through local value addition and opportunities for engagement of local labour in processing and packing, transportation and handling and other activities, such as marketing.

### Animal health controls

Trade in healthy livestock commodities is growing fast and there is an enormous potential for pastoralist societies to capitalize from their unique resources. The opportunities are great, but the way ahead is long. Strengthening of local animal-health services would be a good way to prevent the spread of infectious diseases both within a country and beyond its borders; animal health is of international concern.

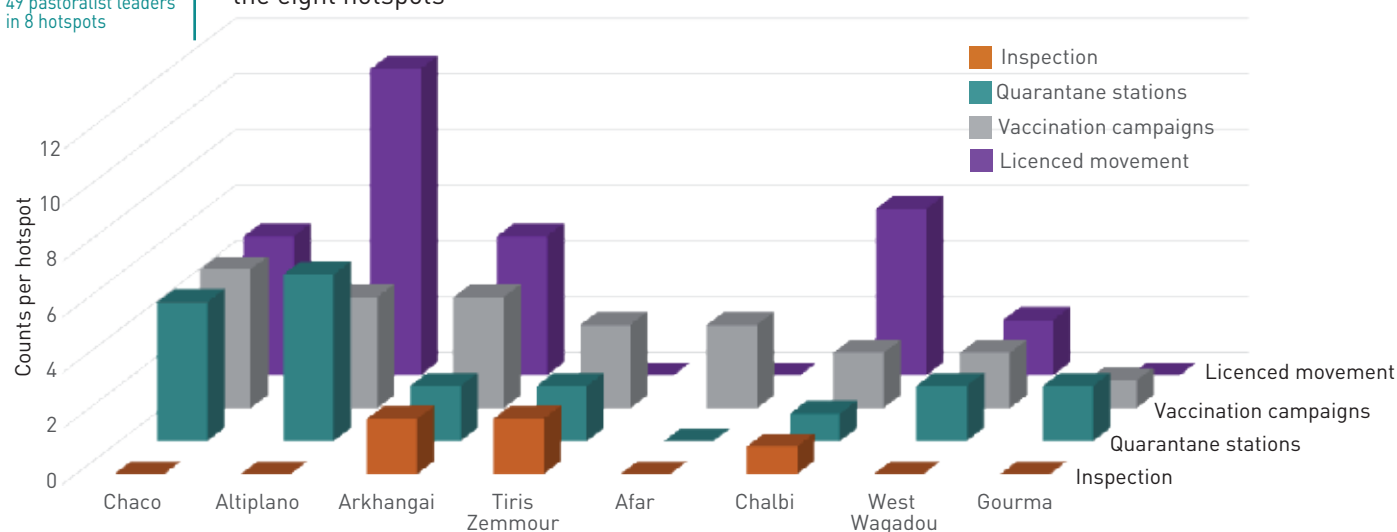
The eradication of rinderpest a decade ago was a major achievement, made possible also by the network of community animal health workers. However, other serious diseases, such as *peste des petits ruminants* (PPR), still exist in pastoralist areas and have been selected for the next OIE-FAO eradication programme.

Creating new opportunities for pastoralists through enhanced access to markets, pastoralist services and value addition are

Figure 39

Respondents =  
49 pastoralist leaders  
in 8 hotspots

Percentage of informants reporting the existence of animal health services and controls in the eight hotspots



among the main objectives of the African Union's Livestock Development Strategy (2014). Sanitary measures to improve animal health, food safety and public health are an important aspect of this. The strategy is based on positive experiences in the livestock trade between Djibouti, Somalia, Ethiopia and Sudan with countries in the Near East. In this, trading procedures for live animals have been set up, and value addition has led to a trade in carcasses and deboned meat. However, such developments are still rare.

We asked our 49 key informants in the eight hotspots about various types of infrastructure, animal health services and controls in the value chain. Some 49% of the informants across the hotspots said there were vaccination campaigns in their territory; the average was 3 campaigns per year, with high

frequency in the Chaco and low frequencies in West Africa (Figure 39). Veterinary inspections within the hotspot territory were few: mainly informants in Arkhangai, Tiris Zemmour and Chalbi said they were made. Quarantine facilities were found more frequently in the Altiplano, Tiris Zemmour and Arkhangai: they were less reported from other regions.

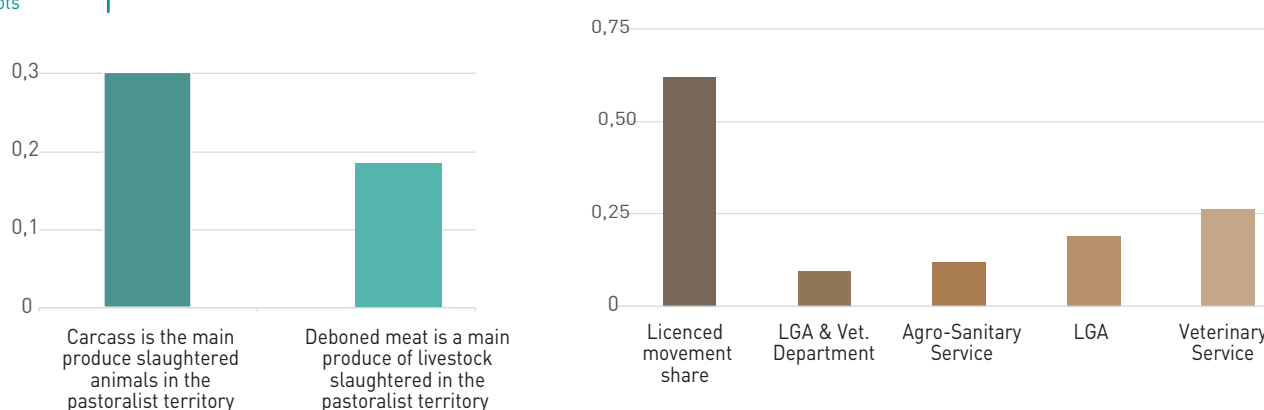
About one-third (30%) of the key informants said that carcasses were the main product of slaughterhouses in their territory; 19% said that deboned meat was (though this seems high) (Figure 40, left).

Around two-thirds (62%) of the key informants said that animal movements in their territory were licensed; in most cases this licensing was the responsibility of the

Figure 40

Respondents =  
49 pastoralist leaders  
in 8 hotspots

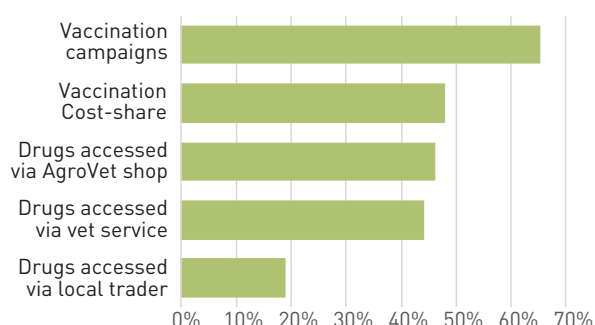
Percentages of informants in the hotspots reporting on: main products of slaughterhouses (left) and licensed livestock movements and authorities responsible (LGA = local government authority) (right)



**Figure 41a**

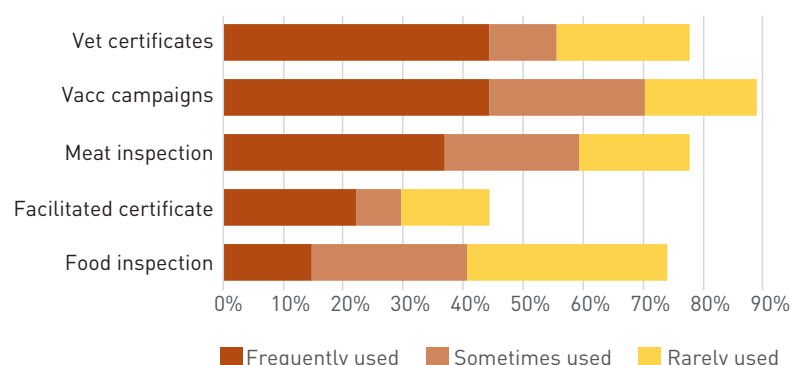
Respondents =  
315 pastoralists  
in 8 hotspots

Percentage of pastoralists stating  
animal health services were  
rendered in the hotspots


**Figure 41b**

Respondents =  
panel of experts in 26  
countries (enabling  
environment)

Percentage of key informants in 26  
countries reporting on frequency that  
particular services were used



veterinary service or local government (**Figure 40, right**).

We asked the 315 pastoralists in the eight hotspots about various animal health services in their areas. Two-thirds said that a vaccination campaign had been held in the previous 12 months (**Figure 41a**); this compares to the 44% of key informants in 26 countries who said that such campaigns were held regularly in the same areas (**Figure 41b**). Nearly half the pastoralists said they had to pay for the vaccination. Most got drugs from the local agrovet shop or veterinary service; only 19% got them from a local trader.

According the key informants in 26 countries, other common services were veterinary certificates and meat inspection.

Facilitated certificates, in other words assistance and support to obtain necessary

permits for pastoralist trade and food inspections were rare.

### Sources of drugs

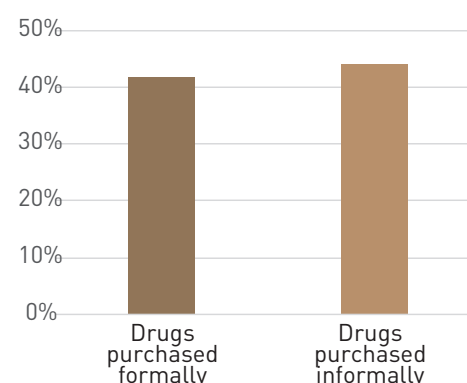
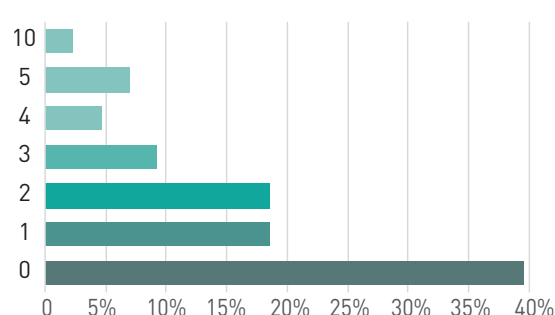
We asked to 49 pastoralists leaders how many veterinary pharmacies there were in their territory. Forty percent of them said there was veterinary pharmacy in the territory (**Figure 42, left**). However, considering the extension of the hotspots (some territories ranging several hundred kilometres), it is remarkable to see that in the majority of cases there were just one (19%) or two (19%) pharmacies. In the latter case it was confirmed that the role of local traders in the drug supply is an important factor.

We also asked to 49 pastoralists leaders to indicate the main source of drugs purchased

**Figure 42**

Respondents =  
49 pastoralist leaders  
in 8 hotspots

Percentage of pastoralist leaders stating the number of pharmacies in their territory (left);  
the main source of purchased drugs (right)







© VSF Germany

by pastoralists. 44% reported that drugs are mainly purchased through informal channels (**Figure 42, right**). This can have important consequences on the quality of drugs and their efficacy: drugs that don't pass through formal channels and controls can be fake, or they can be handled or stored in the wrong way (e.g. without respecting the cold chain) which affects their efficacy.

## Conflict and insecurity

**Influence of climate.** Extreme climate cycles have a direct influence on conflict and peace in the tropics. Societies face the risk of the breakout of conflict and civil unrest during years of El Niño/Southern Oscillation (ENSO), according to Hsiang et al 2011. Earlier studies analysed on how climate change increases the risk of conflict, as Burke et al. (2009) found that the likelihood of conflict in Africa was 50% higher than in normal years since 1981. From the 240 global civil conflicts identified since 1950 a fifth was linked to the 4–7 year

ENSO climate cycle (Hsiang et al 2011). Various hypotheses have been proposed to explain the causality, but it is yet not clear what the correct explanation is. One of these hypotheses that income in ENSO years drops to levels that can trigger violence (Hsiang et al. 2013, Harris et al. 2013).

From 2005 to 2009, more than half the people impacted by “natural” disasters lived in fragile and conflict-affected states (Kellett and Sparks 2012). Burke (2009) found strong historical linkages between civil war and temperature in Africa, with warmer years leading to significant increases in the likelihood of war. On this basis, we might expect a 54% increase in the incidence of armed conflict by 2030. Berger (2003) and Gurevich (2010) detail the drivers of pastoralist conflicts: extreme rainfall variability, low carrying-capacity of the vegetation, and flash floods.

Conflicts are common in pastoralist areas, and they are often (though not always) over natural resources. Climate variation and climate change may trigger conflict by forcing herders to move into new areas in search of pasture or water.

✓ Improving pastoralist livelihoods and resilience in light of climate change by supporting adaptation and mitigation strategies in a participatory way with neighbouring communities can help reduce conflicts.

**Institutions.** Tribal or customary governance that stems from nomadism has a big role in avoiding and managing conflict. Many pastoral societies have highly regulated systems that include herd-sharing and -splitting, management of grazing regimes, water and forests, customary institutions and a clear social hierarchy. They encompass a detailed knowledge of natural resources and the ability to settle conflicts, define common rules, ensure compliance and apply sanctions. Where such systems have been weakened or undermined by policies such as sedentarization, conflicts can arise.

In the case customary governance is deteriorated and state institutions are not present insecurity and localized conflict are thriving.

Pastoralists are confronted with reduced mobility and poverty, as sedentary life leads to reduced opportunities and increased costs. When pastoral systems decrease in the drylands, vast and remote spaces become empty and ungoverned. This took place in several occasions such as in Somalia and Algeria in the early 2000s, when radical groups and international organized crime penetrated these relatively empty spaces. International interest is now turning to the positive role that can be played by vibrant pastoral economies populating and monitoring remote areas (IFAD and FAO, 2016).

✓ **Pastoralism itself is a way to manage remote and difficult areas, keeping them inhabited, productive and secure, and reducing opportunities for banditry, trafficking and insurgency.**

In several countries from **North Africa and West Asia**, pastoral communities have to deal with instability in the region at first hand: they are threatened physically, and some of their grazing land becomes inaccessible. At the same time, marginalized pastoral communities (especially young men) are recruiting grounds for illegal activities or insurgency. Investments to improve the quality of life of pastoral communities and strengthen their ties with governments and international agencies would help mitigate this phenomenon.

**Natural resources.** Many conflicts in pastoral areas can be traced back to disputes over natural resources: lack of access to specific resources or migration routes, overuse, encroachment by outsiders, mistaken development investments, and policies such as land privatization.

We asked pastoralist in 8 hotspots about conflict: out of the 276 valid answers, 56% of the pastoralist had experience with conflict: 45% of these were related to resources (25% of the total), and 55% (31% of the total) to other factors (many conflicts have multiple roots) (**Figure 43**).

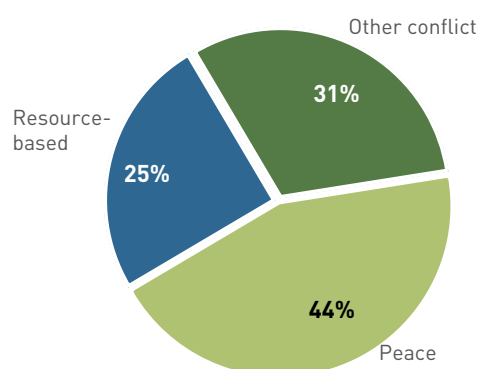
This indicates that a large part of conflicts in pastoral zones are of resource-based origin, which supports the prevalent view in the literature.

✓ **Planning and preparedness techniques exist that can be used to prevent or deal with conflicts in pastoralist communities. Humanitarian and development actors are advised to mainstream conflict-sensitive programming. Unprepared and uninformed foreign actors may cause more harm than good. Some donors link funding to a mainstreamed conflict-sensitive programming approach; this could be a useful general recommendation for foreign investment.**

**Figure 43**

Respondents =  
315 pastoralists  
in 8 hotspots

Perceptions of interviewees on the prevalence of peace, resource and other conflicts in the eight hotspots



## Information and innovations

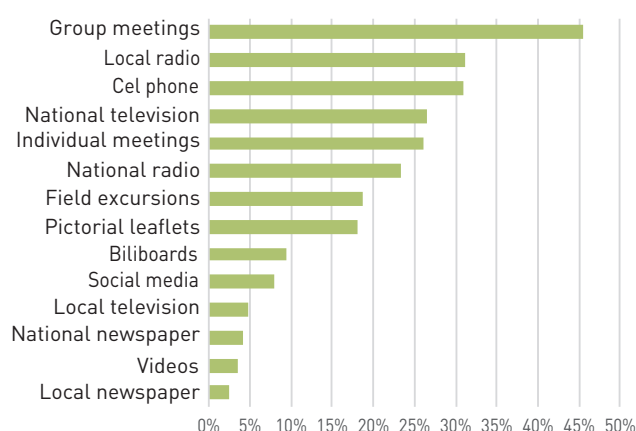
Poor management of information and lack of innovation have been identified as a key barrier to pastoral development by diverse global actors. The African Union Livestock Development Strategy of 2014 aims to enhance innovation, the generation and utilization of technologies, and the capacities and entrepreneurship skills of livestock value-chain actors. So it is important to understand how to reach pastoralists and which media are the most appropriate.

We asked pastoralists (n=315) and their leaders (n=49, not shown here) about the

**Figure 44a**

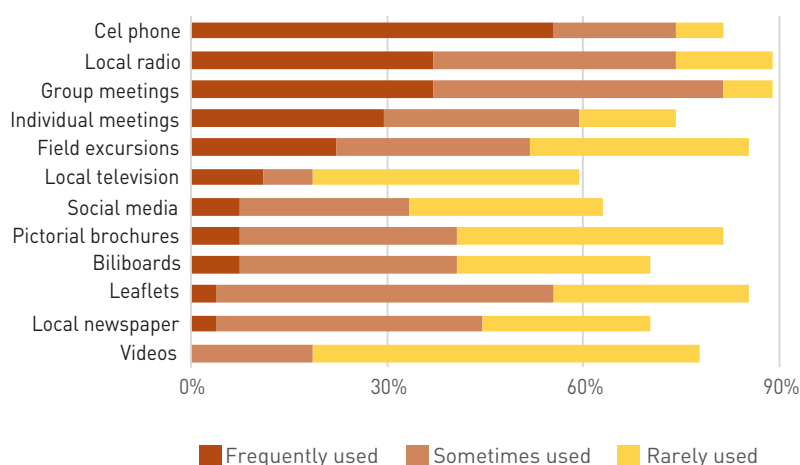
Respondents =  
315 pastoralists  
in 8 hotspots

Available information tools as  
inquired with pastoralists in 8  
hotspots

**Figure 44b**

Respondents =  
panel of experts in 26  
countries (enabling  
environment)

Frequency of use of information tools  
as perceived by key informants in 26  
countries



most appropriate communication and media type (**Figure 44a**); in order to reflect the result, we also asked interviewees in the NGO environment in 26 countries to identify the availability of various media in their countries and state how frequently they were used. Group meetings were the most common media, with 45% of the respondents saying they were available; they were followed by local radio and leaflets, social media/internet, local television, billboards, local newspapers, and videos ranked below 10% in terms of usage.

The interviewees said that cell phones, local radio and group meetings were the most frequently used media (**Figure 44b**). Several advocacy organizations and initiatives, such

as FAO's Pastoralist Knowledge Hub, rely on the internet and social media, though these are among the least-available and most rarely used media (**Figure 44a**).

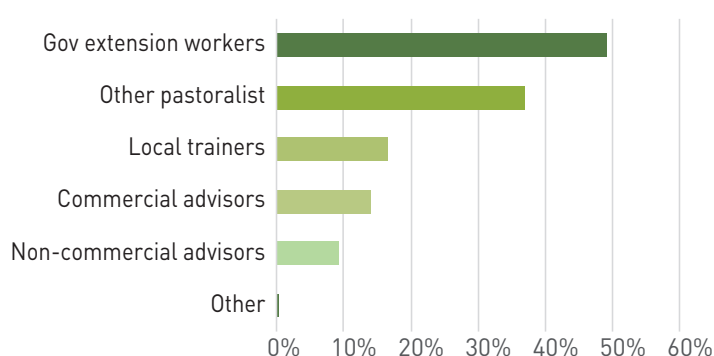
We asked 315 pastoralists in the eight hotspots whether they had received any information on how to improve their pastoral system in the previous year, and which media they used. Most (49%) said they got information from governmental extension workers (49%), followed by neighbouring pastoralists (37%) and local trainers (16%) (**Figure 45**).

Substantial numbers also mentioned non-commercial advisors (such as NGOs), local trainers and commercial advisors.

**Figure 45**

Respondents =  
315 pastoralists  
in 8 hotspots

Sources of information identified by  
respondents in 8 hotspots

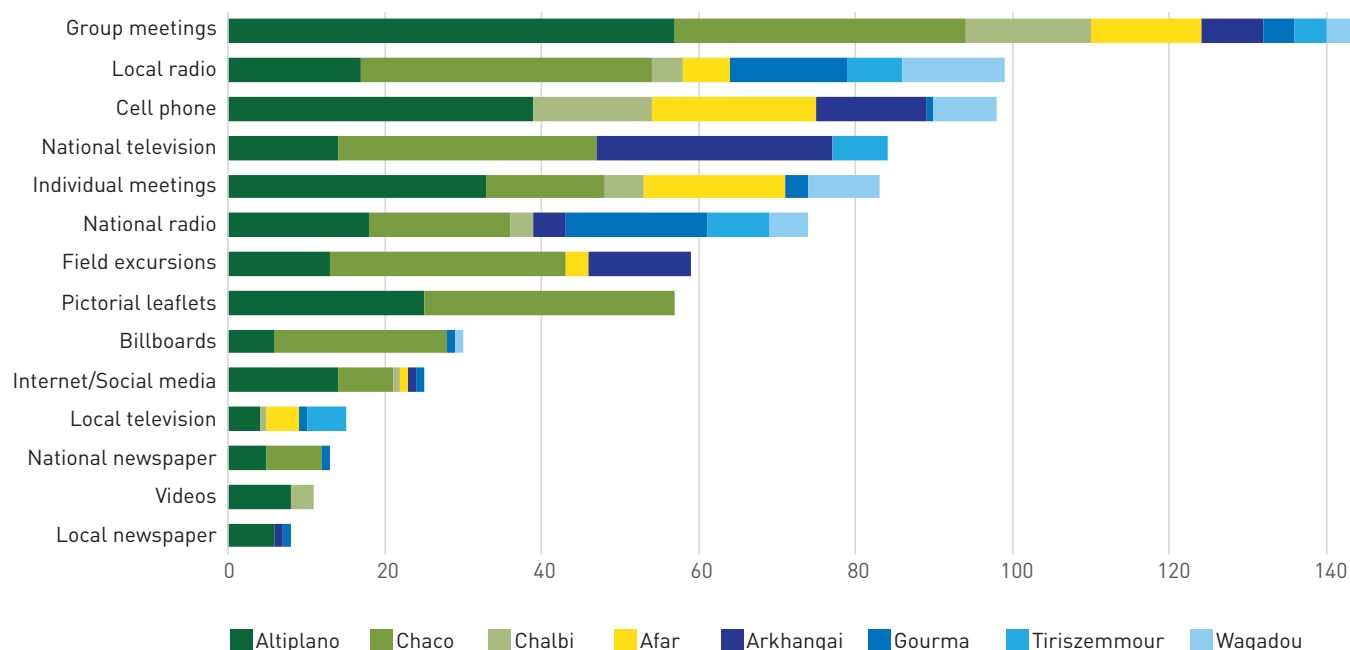




**Figure 46**

Respondents =  
315 pastoralists  
in 8 hotspots

Media used by respondents to obtain information on pastoralism (counts of replies)



Looking at the media use by region, we can see some differences among the eight hotspots (**Figure 46**). While group and individual meetings were important everywhere, they were particularly so in Altiplano, Chaco, Chalbi and Afar. Radio dominated in Chaco, Gourma and Wagadou; mobile phones were important in Altiplano, Afar, Chalbi, Arkhangai and Wagadou. Television was important in Arkhangai and Tiris Zemmour; while newspapers were more read in Chaco.

Communities use both formal and informal channels of communication. However, there was no structured coordination between the formal and informal information flows. Traditional communication methods such as dago in Ethiopia, individual and pastoralist meetings, groups, and local organizations, along with mobile phones, are effective in less-educated communities.

Information technology is a bottleneck for pastoralist development. Access to information is closely linked to the ability to influence policymaking and the enabling environment: it can reduce marginalization. But media that require physical presence, such as meetings and excursions are still the dominant mode of communication. Radio, and increasingly, mobile phones, can over-

come this constraint; mobile phones promise to revolutionize pastoralism because it allows two-way communication over long distances.

✓ A combination of investment in mobile technologies and apps, and in the physical presence of change agents in the field, could help fill the information gap that many pastoral communities face.



## 4 MARKET ECONOMY

The pastoralist market economy describes in principle the transformation of natural assets (structure and processes) into products that can be bought and sold through market transactions.

Two kinds of capitals constitute the market economy (Chain-Guadarrama et al. 2016). Built capital refers to physical infrastructure that supports livelihoods and can influence how natural stocks are appropriated, managed or damaged. Financial capital refers to the public and private financial resources available to invest in capacity building, to underwrite businesses development, to support civic and social entrepreneurship, and to accumulate wealth for future development.

### BUILT CAPITAL

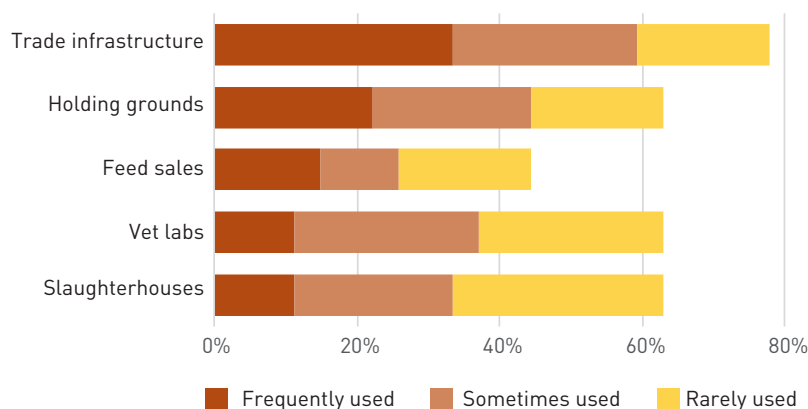
Built capital includes buildings and shelter, livestock markets, water and electricity supplies, sanitation, and transport and communication networks. Some of this capital is public infrastructure that can be used without direct payment (e.g., roads). Some is privately owned (such as shelter), while others can be used for a fee (e.g. slaughter slabs and market facilities).

Here we look at three types of built capital of particular interest to pastoralists: livestock markets, transport and communications, and water points.

**Figure 47**

Respondents = panel of experts in 26 countries (policy)

Percentage of respondents reporting on the use of various types of facilities.



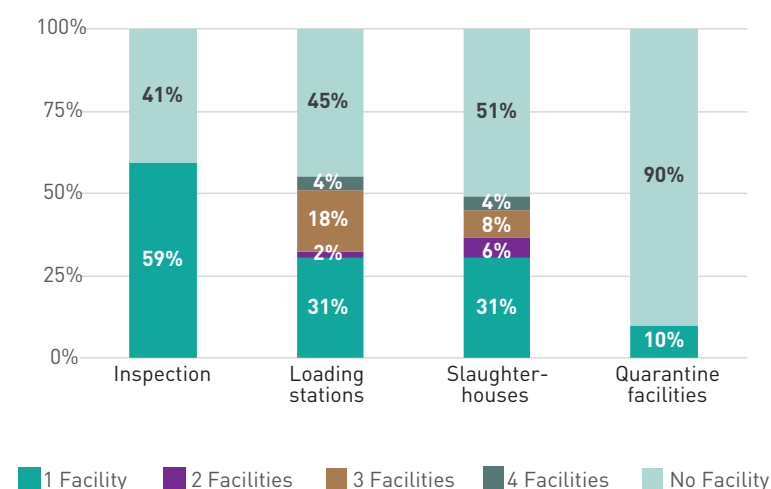
### Livestock markets

We asked the interviewees in 26 countries about the use of various types of marketing infrastructure. One-third said that animal health and trade infrastructure (facilities for vaccination, treatments, sales, and dairy/meat commodities) were frequently used in their area (**Figure 47**); 22% reported that holding grounds or quarantine stations were frequently used. Vet laboratories, slaughterhouses, and facilities for feed marketing were mentioned by fewer respondents.

**Figure 48**

Respondents =  
49 pastoralist leaders  
in 8 hotspots

Existence of livestock facilities in the hotspot: percentage of respondents in the eight hotspots who said that such facilities existed in their area (% of pastoralists' replies)



We asked the pastoralists leaders (n=49) about the number of marketing facilities in their hotspot area. Over half said their area had between one and five loading stations; a similar percentage said there was an inspection facility (**Figure 48**). Only 10% said there was a quarantine facility in the area.

Regarding slaughter facilities, the average distribution among the territories was almost one slaughterhouse per territory ( $0.85 \pm 0.16$ ), still 51% of the pastoralists leaders (n=49) said there was no facility, 30.6% reported one, 6.1% reported two, and another 8.2%, three (Figure 48).

Fifty-one percent of the 315 pastoralists we interviewed in the eight hotspots said there was no livestock market in their territory, while 19% said there was one such market. Almost all the rest (27%) said there were between two and six markets.

We asked how many livestock product markets (for meat, wool, etc.) where producers can sell their output. Most respondents said there were between two and four such markets in their area. Few had access to seven or more such markets (**Figure 49**).

✓ A significant amount of investment has been made in marketing facilities in pastoralist areas, but such facilities are still scarce, and those that do exist are often not functional or are poorly used. The local pastoralist community must be involved in planning, creating and managing such facilities if these are to be suited to local needs, accepted and used.

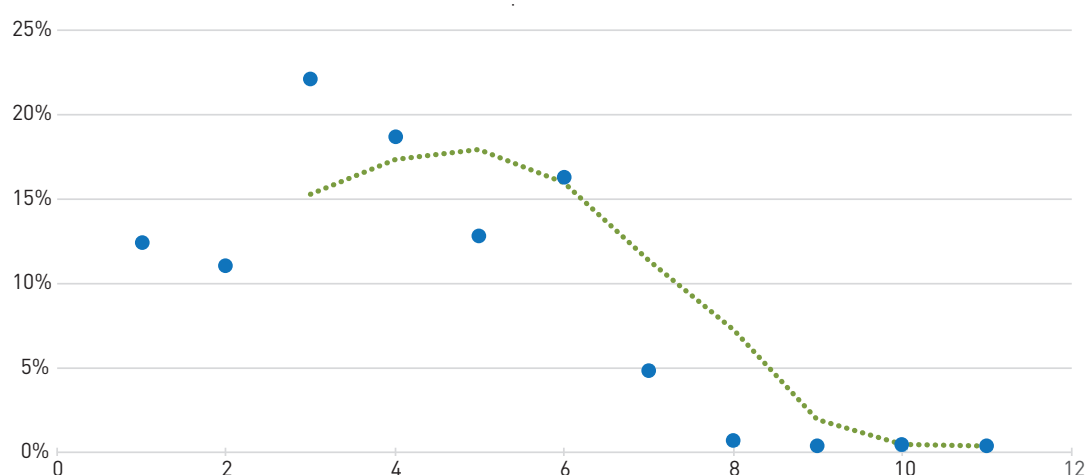
## Transport

Demands to improve road access to pastoralist areas are probably universal. The low population density, vast distances and high costs deter governments from investing in a lot of infrastructure. Most of the roads that are built serve international connections, thus cross pastoralist regions only by chance.

**Figure 49**

Respondents =  
315 pastoralists  
in 8 hotspots

Number of livestock product markets/sales outlets among the eight hotspots





Beside the main trunk roads (important for marketing), feeder roads that connect pastoralist settlements with the pastoral areas are probably equally important.

✓ Although few pastoralists have vehicles, such feeder roads are important to maintain security, provide access for medical, veterinary, and educational services, and allow wells and another infrastructure to be maintained. Building and maintaining those feeder roads is often a great challenge because in many pastoral systems, settlements are often in valleys and pastoral lands in the high plateaus, or in lowlands that are characterized with many rivers. Many feeder roads are built communally by pastoralist labour. Communities often decide to build feeder roads as part of safety-net programmes in which they receive cash for work.

## Communications

Communication networks have undergone a revolution in pastoralist regions (see also the section on Information and innovation under Social capital). Mobile phones now allow pastoralists to receive up-to-date market information and identify where to sell their livestock. They can use their phones to get information on the weather and the presence of water or pasture. They can use them to buy and sell livestock, arrange transport and get veterinary and production advice. They can transfer money, take part in savings and insurance schemes (particularly important in areas where banks are non-existent). They can negotiate the recovery of stolen cattle by phone, without putting peoples' lives in danger. Local institutions can use phones to build networks to connect people. Phones can help track disease outbreaks and disseminate health messages. There is every reason to think that mobile phones will soon offer a significant new mechanism for distance learning for pastoralists (Butt 2015, Schelling 2013).

The mobile phone has brought a new form of communication into pastoralist regions, from the tundra to the savannah: it offers real-time, interactive, private, oral communi-

cation, conveying information from place to place without moving people. Unlike radio, mobile phones offer privacy, confidentiality and interactivity.

✓ Mobile phones have big potential in pastoral societies: they encourage equality rather than stratification, require little maintenance and are small and easily transported (Stammler 2009). Investing in improvements in communication technologies in rural areas should be a priority (CTA 2012).

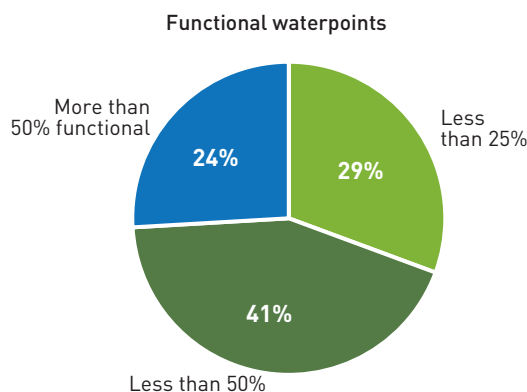
In Asia and Latin America, mobile phones reach close to 100% of the population. Africa has fewer phones per person but is the fastest-growing mobile market in the world. The use and ownership of mobile phones in Africa has increased dramatically, from 2% of the population in 2000 to 80 % in 2013, with 826 million subscribers. The five countries with the most mobile phone users in Africa are Nigeria, Egypt, South Africa, and Morocco with 114, 93, 60, and 36 million subscribers (Butt 2015). In Kenya, the number of phone users has increased in the last decade from 2 million to 25.2 million users, or more than half of the total population (Butt 2015). Even in war-torn Somalia, mobile coverage is increasingly available, including in rural zones. Some 26% of households own at least one mobile phone. Four telecommunications firms, Telsom, Telecom, Somtel, and NationLink, operate in most regions in Somalia. Telecommunication infrastructure functions well in most villages (Schelling 2013).



**Figure 50**

Respondents =  
315 pastoralists  
in 8 hotspots

How many  
water points  
are functioning  
in the hotspot  
during the dry  
spell?



The mobile industry in Africa contributes US\$ 56 billion to the regional economy, equivalent to 3.5% of total GDP. This growth has been attributed in part to the liberalization of the telecommunications industry and the lower costs for mobile handsets (Butt 2015).

Calling rates have become increasingly affordable. In order to recruit more subscribers, mobile providers are introducing value-added services such as mobile banking and free alerts to inform people when subscribers are out of reach, or flashback services when they are out of credit. Approximately 80% of mobile subscribers in Kenya use a pre-paid system of credit. Mobile use and ownership transcend both age and wealth classes and there is a relatively high percentage of borrowing and lending phones among users (Butt 2015).

## Water points

In all our consultations with pastoralists, in particular those in North Africa and West Asia, participants said that investing in water resources (e.g., deeper wells, maintaining pumps) is a primary concern. At the same time, there are plenty of recommendations on how to avoid the type of disasters that have in the past been fuelled by inappropriate infrastructure related to water. Permanent water facilities increase settlement, concentrate livestock concentration, overgrazing, grazing less quality feeds, albedo, and finally desertification and poverty. Adapted technologies include shallow wells, sand dams, water catchments, and techniques that break the wind and retain humidity, such as stone walls, hedges and trees.

It is not surprising that 70% of the 315 pastoralists we interviewed said that less than half (41% of pastoralist report 50% and a quarter of the pastoralist report 29%) of the water points remain functional during the dry spell, since many water points are seasonal and need to be rehabilitated once the herd returns. Another 24% said that more than half the wells remain functional in a dry spell (**Figure 50**).

## FINANCIAL CAPITAL

Financial capital is the financial resources that people use to achieve their livelihood objectives. It includes both public and private financial resources to finance community capacity, businesses development, civic and social entrepreneurship, and to accumulate wealth (Chain-Guadarrama et al 2016).

There are two main sources of financial capital.

- Available stocks or savings are the preferred type of financial capital because they do not have liabilities attached and usually do not entail reliance on others. They can be held in several forms: cash, bank deposits or as livestock: for pastoralists, livestock are the main form of savings. Financial resources can also be obtained through credit institutions.

- Regular inflows of money, such as earned income, pensions, or other transfers from the state, remittances, etc....

Financial capital is the most flexible type of capital. It can be converted with varying degrees of ease into other types of capital: for example, it can be used to buy food, transformed into political influence, and can free people to participate in organizations that formulate policies.

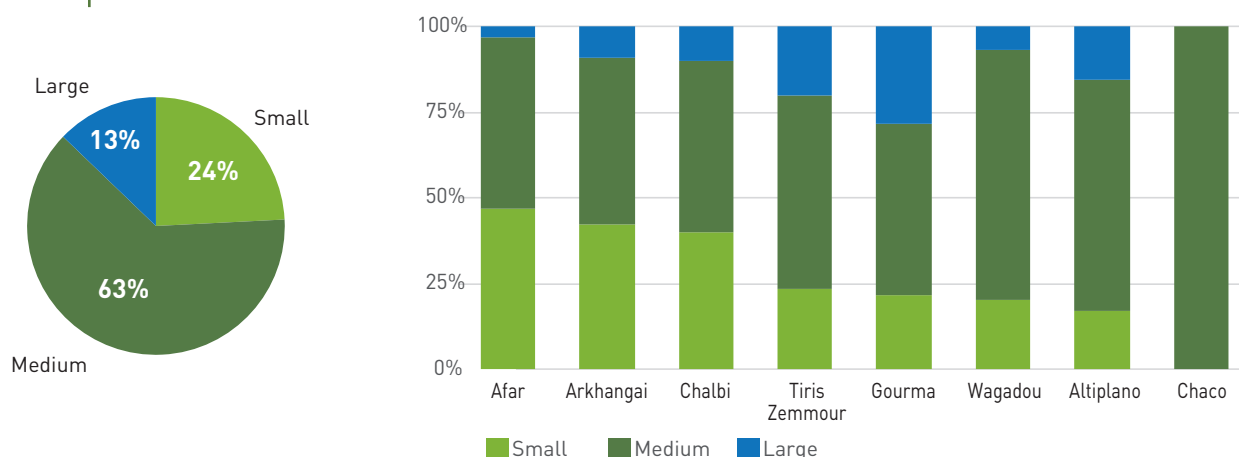
## Wealth

Nevertheless, financial capital tends to be the form that is least available to the poor. Because the poor lack financial capital, other types of capital for them are more important. If all pastoralists are seen as poor, it could be taken as proof that the financial system is in-

**Figure 51**

Respondents =  
315 pastoralists  
in 8 hotspots

Perception of the pastoralist household's own relative herd size (% of pastoralist counts): aggregate data (left) and per hotspot (right).



efficient and that people would abandon it if provided with alternatives.

In fact, pastoralists are neither all rich nor all poor, and those who are relatively rich in assets are usually “poor” in terms of services. This also induces exit strategies in the hope of increasing access to services, usually at the expense of efficiency in production (IFAD and FAO 2016).

We asked the interviewees in each of our 315 households in the eight hotspots to compare their herd sizes with those of their neighbours. About 24% said they had small herds; 63% said they were medium-sized, while 13% said their herds were large (Figure 51).

In Afar, Arkhangai and Chalbi significant proportion of the interviewees stated compa-

table own herd sizes.

The livestock capital among the interviewed pastoralists is shown in Figure 52. Species of livestock kept by pastoralist differed markedly among the eight hotspots. While in Chaco goat make up main livestock species in most of the pastoralist herds, camelids were important in more than 50% of the herds in the Altiplano. Either cattle or camel play a significant role in herds in Arkhangai and many African hotspots. Generally, nearly half of the pastoralist herds are built upon small ruminants.

Some who see their shrinking natural resource base that is unable to sustain a fast-growing population try to find alternative sources of income, such as handicrafts

**Figure 52**

Respondents =  
315 pastoralists  
in 8 hotspots

Frequency of main herd livestock species mentioned by pastoralist (counts of responses; multiple responses possible) (left); and frequency of main livestock species by pastoralists distributed within eight hotspots (right)

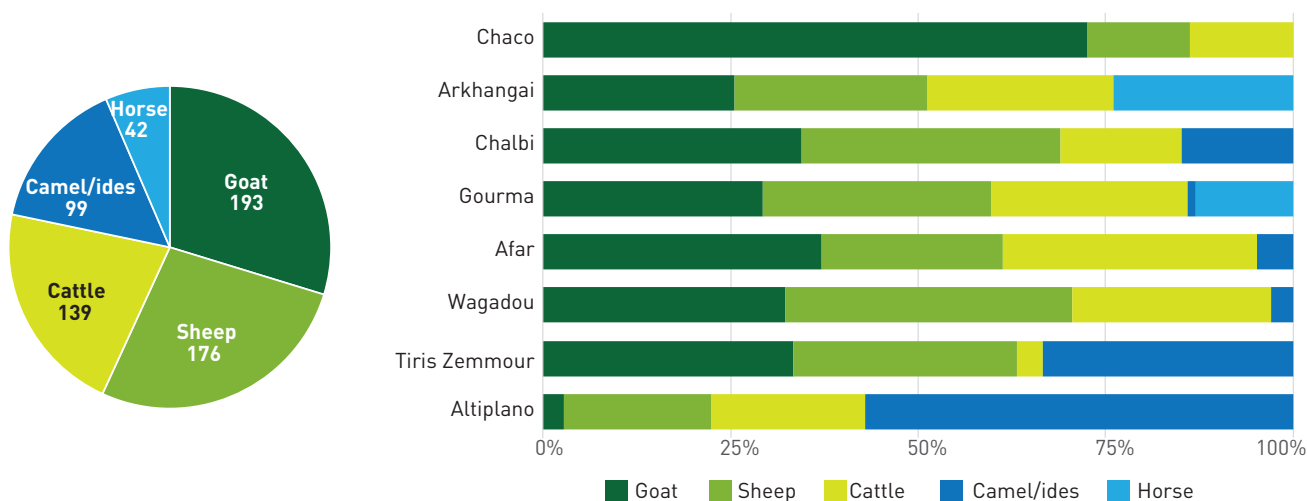




Table 13. Terms of trade of staple cereals per tropical livestock unit during normal and stress periods of pastoralists (n=315) in eight hotspots

HOTSPOT	NORMAL TIMES	DURING STRESS	DIFFERENCE	
	kg cereal per TLU	kg cereal per TLU	kg cereal per TLU	%
Altiplano	715 ± 92 a	488 ± 86 a,b	227 ± 58 a	32%
Chaco	710 ± 104 a	503 ± 77 a,b	208 ± 66 a	29%
Chalbi	865 ± 118 a	268 ± 88 a	598 ± 74 b,c	69%
Arkhangai	1122 ± 114 a,b,c	642 ± 84 b	481 ± 72 a,b	43%
Gourma	1467 ± 116 b,c	826 ± 86 b	641 ± 73 b,c	44%
Wagadou	1626 ± 120 c	729 ± 89 b	897 ± 76 c	55%
Afar	1924 ± 116 c	710 ± 86 b	1214 ± 72 d	63%
Tiris Zemmour	2605 ± 120 d	1387 ± 96 c	1219 ± 82 d	47%
Overall	1379 ± 41	608 ± 30	686 ± 25	50%

TLU = tropical livestock unit

Values attached are standard errors (S.E.)

Superscripts denote differences of means between groups calculated using Tukey HSD

Respondents = 315 pastoralists in 8 hotspots

and eco-tourism. Participants in our North Africa and West Asia forum felt that such new sources can create jobs and increase the income of local communities, and help reduce the migration of young people. Pilot experiences have produced good results. Increasing incomes will also help the environment by reducing deforestation and the cutting of bushes for fuel-wood and fencing. Initiatives and investment are needed in education, vocational training, capacity building and microfinance, especially working with organizations of women and youth.

## Marketing livestock

Markets are important for food security: they maintain supplies of staple cereals and other necessities, and allow pastoralists to sell their animals and earn cash to buy items they need. Livestock markets (see also the

section on livestock markets in Built capital) often have a cultural dimension: many are located in ethnic borderlands or in agropastoral or farming areas. Access for mobile groups is sometimes restricted for political reasons. Prices tend to be cyclic: at harvest times of staple crops, prices for cereals fall and relative prices of livestock unit rise, while at the onset of the dry season prices for carcasses dwindle. Prices for carcasses in regions with enough fodder production and feed stores are more stable than in areas where feeds cannot be guaranteed year-round.

One way to assess markets and food security is to use of terms of trade: the amount of cereals that can be bought for the value of an animal. The more cereals that can be bought, the better the situation for livestock owners. A standard-sized animal, known as a “tropical livestock unit” (TLU, roughly equivalent to a large adult cow – see **Box 1**) is used in the comparisons. We calculated the terms of trade for normal and stress periods (**Table 13 and Figure 53**). We compared the data of the terms of trade statistically between the groups to evaluate if there are differences in spite the high standard errors. Note that the cereal staples differed from one hotspot to another.

The overall terms of trade in normal times were 1379±41 kg of cereal per TLU, but fell during climatic stress periods by half (608 ±30 kg per TLU). The differences were due not only to the lower prices for livestock but also to higher prices of staples during stress pe-

### Box 1. Tropical livestock units

Tropical livestock units (TLU) are livestock numbers converted to a common unit to allow comparisons.

**1 camel = 1 TLU**

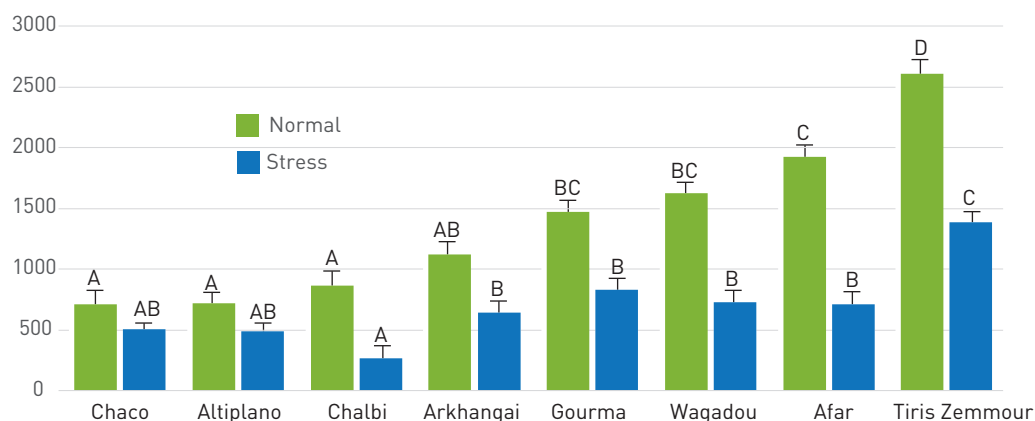
**1 cow = 0.7 TLU**

**1 sheep or goat = 0.1 TLU**

Figure 53

Respondents =  
315 pastoralists  
in 8 hotspots

Terms of trade for cereals and livestock: kilograms of the dominant cereal staple required to exchange with a tropical livestock unit

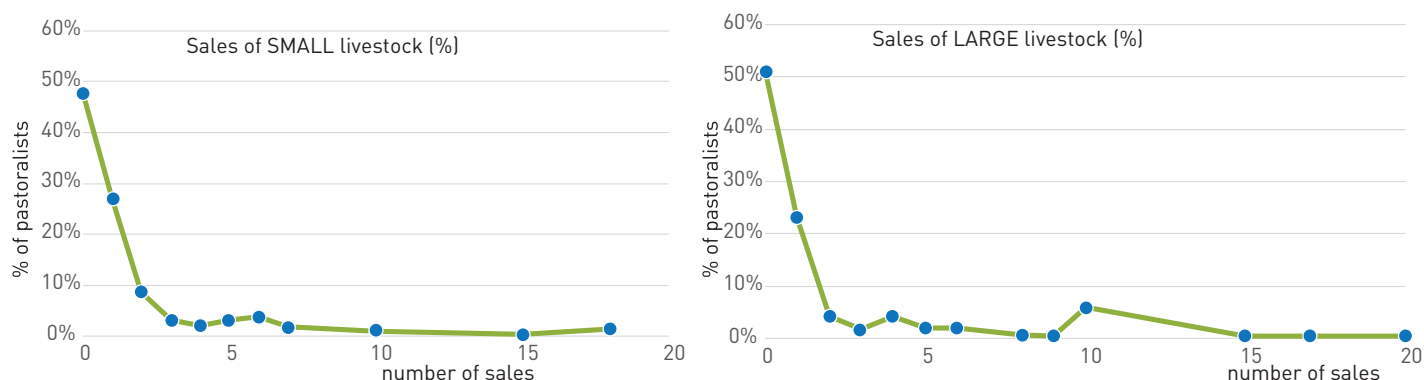


Superscripts denote differences of means between groups calculated using Tukey HSD. Means are shown including standard errors (s.e.).

Figure 54

Respondents =  
315 pastoralists  
in 8 hotspots

Number of animals marketed per household in a year



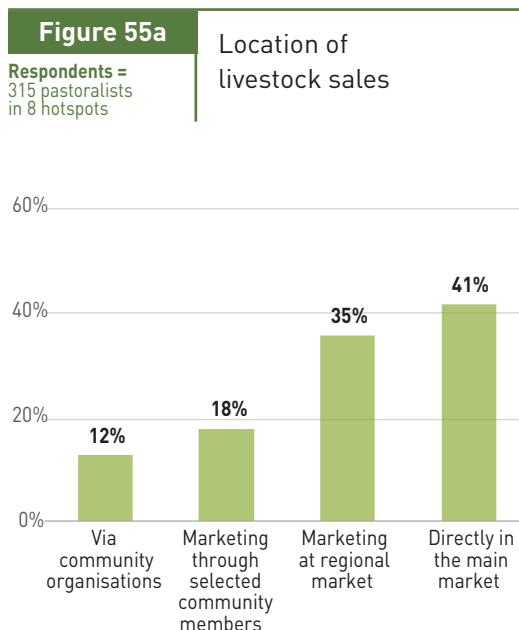
riods. While in the Chaco and Altiplano the terms of trade dropped by around 200 kg per TLU, or about 30% of the initial value, in several African hotspots they fell by 50% or even over 60%. Such large differences indicate that systems to buffer shocks do not function. The bargaining powers of pastoralists are probably limited, especially during stress periods, considering that 60% of the interviewed pastoralists sell their livestock in rural markets, and only 27% serve urban markets.

Because rural communities consist mainly of households that are dependent on pastoralism, markets tend to be composed by a large number of small sellers, none of which can influence prices. During stress periods, demand for cereals and the supply of animals are both high. Traders can profit by trading cereals for animals. Trade barriers include the high cost of transport and feeding at holding

grounds, a lack of information and poor governance.

Our respondents said they rarely sold animals. Nearly half (48%) of the respondents sold no small ruminants at all in the previous year (**Figure 54**) and another quarter (27%) sold just one. The remaining 24% sold two or more animals – up to 18. Sales of large animals were similar: 51% sold none, while 23% sold one and 26% sold two or more. While it seems that most pastoralists rarely sell livestock, a minority do sell larger numbers regularly.

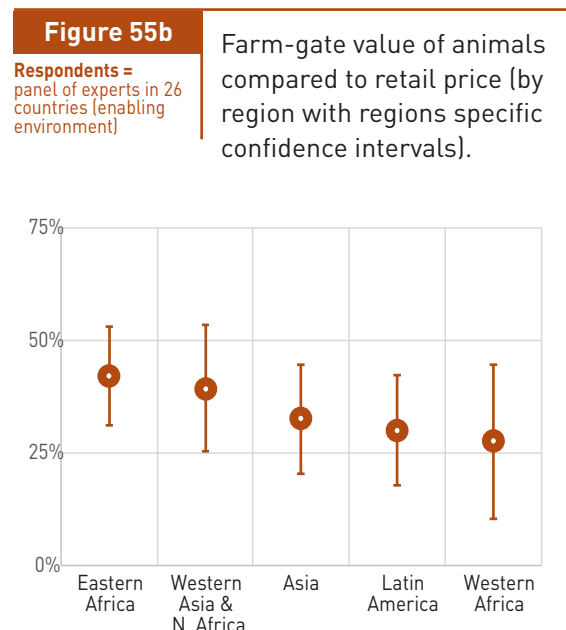
Since the average sale of cattle by pastoralists engaged in marketing was higher than for small ruminants, we may conclude that cattle are more oriented for the market. This is against the generally accepted opinion that pastoralists rather sell sheep and goats and



keep their cattle as savings.

Most of our respondents sold their animals themselves in rural markets (41%, most probably to livestock traders who come to the rural zones) and regional markets (35%) (**Figure 55a**). Another 18% did so through appointed community members. Only 12% sold through community organizations.

There is a large variation in ratio of farm-gate compared to retail values, both between and within regions (**Figure 55b**). It is surprising that although they produce the animals,



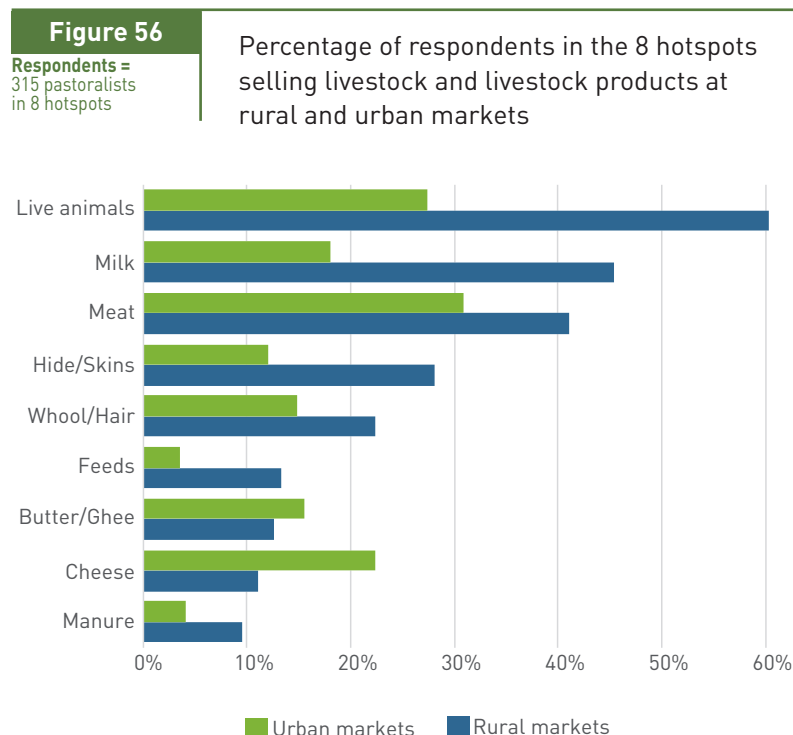
pastoralists get only 35% (s.e.±14%) of the value at slaughterhouse, which lets to the conclusion of rent-seeking behaviour of the middlemen and a highly inefficient livestock market.

## Marketing livestock products

Pastoralists are more likely to trade other livestock products, such as cheese, milk or ghee. Only 12% of the pastoralists do not trade such products, and only 11% have only a single outlet for them. The majority (75%) sell in two to seven outlets: to restaurants, other families, marketplaces or traders.

We asked our 315 pastoral respondents in the eight hotspots whether they sold their livestock and livestock products in urban or rural markets. Rural markets were more important for live animals (60% of respondents said they sold in such markets), milk (45%), meat (41%), hides (28%), and wool (22%). Processed dairy products such as butter and ghee (15%) and cheese (22%) tend to be traded in urban markets (**Figure 56**).

This dominance of rural markets as outlets for produce and live animals is remarkable. Respondents mentioned various barriers that may help explain this phenomenon: transport, the cost of feed, information access and governance. The high cost middlemen are charging, rent-seeking behaviour, market inefficiency and information asymmetry are clear indications that governance







and information policy in pastoralist areas should be rethought and improved.

### Barriers to marketing and how to lift them

We asked our respondents in 26 countries what disincentives existed for marketing livestock. The most commonly named barriers were transport costs, the high cost of middlemen and livestock trekkers, and information asymmetry (Figure 57, left).

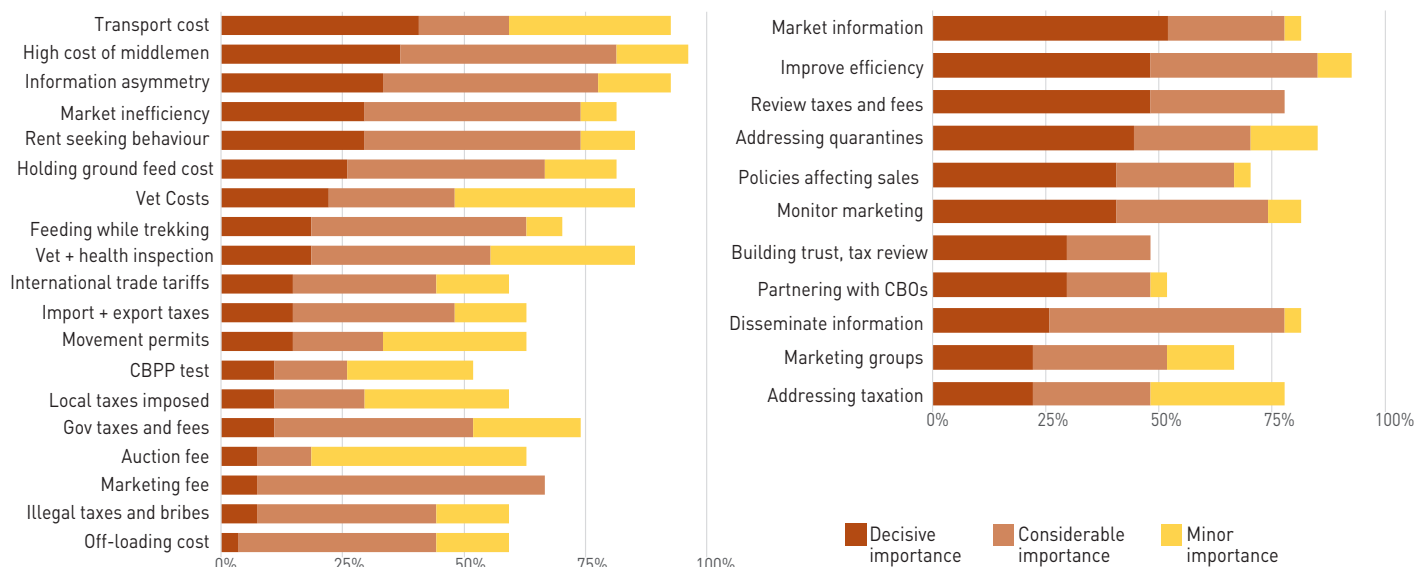
How to lift these barriers? Our respondents said that improvements in market information, the efficiency of cattle markets, and reviewing taxes and fees were the most important measures to undertake (Figure 57, right).

✓ Markets could be improved with better infrastructure (see below), and by improving management, stimulating the local private sector, building links between producers and traders, and increasing transparency and information on prices and other topics. The herders' marketing capacity could be improved by establishing and training marketing groups, training them in business and marketing skills, and by linking the groups to credit institutions. Ways to add value to livestock products include certification, serving niche markets, and processing meat and dairy products. Other ways to increase pastoralists' income include helping them diversify their production, adding activities such as sustainable tourism, and applying for payments for ecosystem services.

**Figure 57**

Respondents = panel of experts in 26 countries (enabling environment)

Disincentives and barriers in the pastoralist livestock market chain (left); opinions on the most effective way to lift barriers (right). Percentages of respondents in 26 countries.



## Livestock marketing: perspectives from Africa

For **North Africa and West Asia**, proximity to Europe means that the main markets are increasingly sensitive to the quality of the food (local, healthy, organic), and consumers are willing to pay a higher price for quality products. In this sense, local producers could benefit from a growing niche market, ensuring a fair income for producers. Moreover, in some countries in the region, legislation encourages the consumption of local products.

In the West African **Sahel**, severe droughts in the end of the 1960s and beginning of the 1970s disrupted the flow of animals from the Sahel to coastal countries and their port cities. This opened regional markets to imports of frozen livestock commodities from Argentina and the European Union.

The **West African** national agricultural sector, and the pastoral sector suffered from macroeconomic and sectorial poli-

cies implemented by many countries of the region aimed at reducing the impact of the debt burden by a strategic overvaluation of the West African franc, price controls, restrictions on processing by the private sector, and a variety of tariff and non-tariff barriers that discouraged intra-regional trade. Similarly, the increased availability of subsidized imports of meat and dairy products from the European Union led to a sharp fall in livestock exports from Sahelian countries to coastal countries, such as Côte d'Ivoire.

The supply of pastoral products in West Africa is both seasonal and inflexible. Conflict and insecurity damage regional integration and interrupt the flow of livestock between countries. Livestock routes stretch over hundreds of kilometres, leaving pastoralists with little influence over volatile prices in terminal markets. They are subject to harassment and illegal fees at border crossings. Official fees are very high (e.g., in Niger and Burkina Faso) or arbitrary (e.g. in Côte d'Ivoire). Roads are poor, making the cost of transport high. Information on prices and on levels of supply and demand that pastoralists need when making marketing decisions is scarce and unreliable. Many market actors are poorly educated or illiterate, hindering innovation, awareness and understanding of policies, and making it hard to make sales contracts.

**Eastern and southern Africa.** In **Ethiopia**, markets are available in every woreda (district) but market days are not set. Many respondents prefer to sell their animals in markets that target export to the Arabian Peninsula, such as Aysaita, close to the border with Djibouti. A lack of slaughterhouses in the Afar region means that animals must be transported to places like Adama, in the highlands, where there are five privately owned slaughterhouses in Adama.



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>>

>> In some places in **Kenya**, such as Marsabit, market infrastructure exists but is not operational. Problems include mismanagement, a lack of engagement of pastoralists in market, a lack of fixed market days, and a lack of control of the market infrastructure by the local authority. Many animals are not checked because they do not pass along the main roads. Loading stations are scarce, as are official inspections, vaccinations and no quarantine. Over 90% of livestock sales are done by selected household members; only 10% of households sell through traders.

In **Southern Africa**, according to regional focus group inquiry, in spite the

rather advanced policy base, there are various disincentives that hamper pastoralist livelihoods: rent-seeking behaviour of middlemen, high local taxes imposed by councils, the high cost of feed at holding grounds, transport costs due to the long distance to livestock markets, administrative costs, and lack of access to market information.

Addressing these disincentives should include building capacities to monitor factors that influence the market, improving market efficiency, establishing and training pastoral marketing groups, and improving access to market information, especially prices, supply and demand, and taxes.

## Outside investment

Investment in the pastoral sector is the first objective of the African Union's Livestock Development Strategy (2014), which aims to attract public and private investment in livestock value chains. The strategy calls for:

- Investments in pastoral infrastructure
- Structural investment in value chains
- Vocational training and linkages with labour markets (start-up capital, internships, business incubation centres, etc.)
- Recognition of asset values, socio-economic benefits and potential
- Public - and private - sector investment policies and incentives
- Access to financial services.

✓ **Investment in public infrastructure and facilities is also a primary concern. Basic services and the ability to respond to primary needs are critical to foster the pastoral economy. Key areas include transportation, water, energy, education, human health and facilities for livestock health, productivity and marketing.**

## Financial services

Banking systems tend to be ineffective and unreliable in pastoral areas. They should be tailored to the specific needs of the pastoral setting, and must address community organizations of vulnerable people (especially women and youth), not just individuals. Microcredit could bring major benefits for developing businesses, income, and employment opportunities. Banks such as Equity Bank in eastern Africa offer microcredit, but the distances to branches in pastoral areas poses a major challenge. Approaches such as village community banks are highly attractive, because they are mobile and community-based. Safaricom, a mobile-phone company, offers money transfer and other banking services through its m-PESA scheme, which is in high demand in pastoralist areas of East Africa.

✓ **It is important to expand financial services to enable pastoralists and other residents to take advantage of economic opportunities. Mobile money services are a major way to transfer money safely in several countries, and they may become important as a vehicle for savings, credit and insurance.**



Table 14. Estimated value of African pastoralism

	CONTRIBUTION OF PASTORALISM TO AGRICULTURAL GDP	AGRICULTURE SHARE OF GDP	GDP	ESTIMATED VALUE OF PASTORALISM
	%	%	US\$ billion	US\$ billion
Sudan	80	28	73.8	16.5
Kenya	50	29	60.9	8.8
Ethiopia	35	45	55.6	8.8
Niger	84	37	8.1	2.5
Chad	34	51	13.9	2.4
Senegal	78	17	15.6	2.1
Mali	33	42	12.0	1.7
Burkina Faso	24	35	12.5	1.1
Mauritania	33	15	5.0	0.2

Based on estimates by Scoones 1995, Salih (1993) and Rodriguez (2008)

## Recognizing the value of pastoralism

The negative image that pastoralism once had has been dispelled, thanks to several studies (Swift 2004; McPeak and Little 2006). It is now widely recognized as a sustainable way of managing a difficult environment. But the notion of irrationalism (**Table 14**) still influences policies and investment decisions. That leads to limited, misdirected investment, poor service provision, and the promotion of less sustainable alternatives to pastoralism.

Valuation studies have both theoretical and methodological limitations. Nevertheless, an estimate of the total economic value of pastoralism is needed in order to:

- Provide support for the argument that pastoralism is a viable and sustainable resource management system.

- Present evidence that many goods and services provided by pastoralist systems are not captured in national accounts since some of them are priced at zero because of their public goods characteristics and market failures.

- Supply figures to inform public investment and policy decisions.

- Improve the understanding of the opportunity costs of alternative land uses.

- Ensure that important, globally enjoyed, services are compensated and protected.

## Contribution to the gross domestic product

One way to justify public investment is to show the value pastoralism contributes to the gross domestic product. This is usually measured in terms of sales of commodities that are produced in pastoral areas. As this is very difficult to measure, estimates are based on the number of livestock.

Pastoralism contributes significant amounts to the agricultural GDP of several African countries. In Africa, pastoralism has been shown to be between 2 and 10 times more productive per hectare than ranching systems (Scoones 1995).

## Ecosystem valuation

Ecosystem valuation offers another way of estimating value. The value of pastoralism can be grouped in four categories:

- **Direct ecosystem values** refer to goods



and services that are used directly by human well-being. They include both consumption (milk, meat, skins) and other uses (use of pastures, etc.).

- **Indirect ecosystem values** come from the services that are transformed by the market and from benefits outside the system itself. They include inputs to value-added foods, agriculture, tourism and environmental services.

- **Option values** relate to goods and services that are not currently used, but which might be in the future (trees for carbon sequestration, medical plants, tourism, etc.).

- **Existence values** are for those goods or services that people know exist, even if they never use them (heritage, fossils, ground water, wildlife).

Direct values are very difficult to capture. Rodriguez (2008) compiled an overview:

- In Latin America, Asia and Africa, offtake of **live animals** for consumption within the pastoralist community ranged from 50 to 30%, with higher values for small ruminants and lower ones for cattle.

- **Milk** produced by Ethiopian pastoralists represents about 65% of the national milk production (another estimate puts it at 77%).

- **Hides and skins** make up 85% of Ethiopia's livestock exports and amount to more than US\$ 600 million. Rodriguez calculated that 7% of this sum reaches pastoralist regions.

- **Wool and hair** are important items for pastoralists, especially in the Andes and Central Asia. In the Andes, alpaca wool is the most important cash income for households; about 10% of the wool harvest is thought to be retained in the community.

- The value of **manure** varies widely from place to place, and estimates differ wildly. A study in Peru calculated that a household made US\$ 600 per year selling manure.

Indirect values include:

- **Draught**, which is of value in agropastoral regions, where animals are used for field preparation and haulage.

- **Manure** for improving soil fertility.

- **Tourism**, whose contribution is not captured in official statistics. In Peru, pastoralists who make handicrafts earn about one-third of the retail price. In Eastern Africa, pastoralists earn an average of US\$ 300 a year from tourism.

The value of **environmental services** is hard to estimate because they are rarely traded.

- An exception is **carbon sequestration**, used in the REDD+ programme. Grasslands probably stores 34% of the global stock of CO<sub>2</sub>, yet a global valuation study assigned just US\$ 7 per hectare for carbon sequestration services (Costanza et al. 1997). A comparative study (Williams et al. 2003) estimated that in Scotland the value was at about US\$ 20 per hectare (Williams et al. 2003) while in China it was estimated at US\$ 15.6 per hectare.

- Another environmental service is **biodiversity maintenance**: grazing and trampling can stimulate pasture growth, suppress invasive weeds and improve mulching and mineral and water cycling. Yu et al. (2005) estimated the value of this at US\$ 7.5 per hectare per year for grasslands.

- Yu et al (2005) estimated the value of **water-holding capacity** of grassland at US\$ 3 per hectare per year.

- Other uses of pastureland include **recreational use**, the collection of items such as firewood, gum, incense, and wild fruits. These items are important to pastoralists but tend to be undervalued and are ignored in economic analysis of pastoralism.







## 5 ECOSYSTEM SERVICES AND INFLUENCES ON THE ENVIRONMENT

The different dimensions analysed so far – the seven capitals –influence each other, either directly or indirectly, positively or negatively. In the following section the interactions between the environment, human wellbeing and the market economy will be discussed and analysed.

### ECOSYSTEM SERVICES

Natural capital affects pastoralists in various ways. We can regard these as ecosystem services (top set of arrows in **Figure 58**, first column in **Table 15**). They may be both direct and indirect.

Direct ecosystem services. There is scarcely any other livelihood system where households (the human well-being system, social, cultural, human, political capitals) are so dependent on natural capital as in pastoralism.

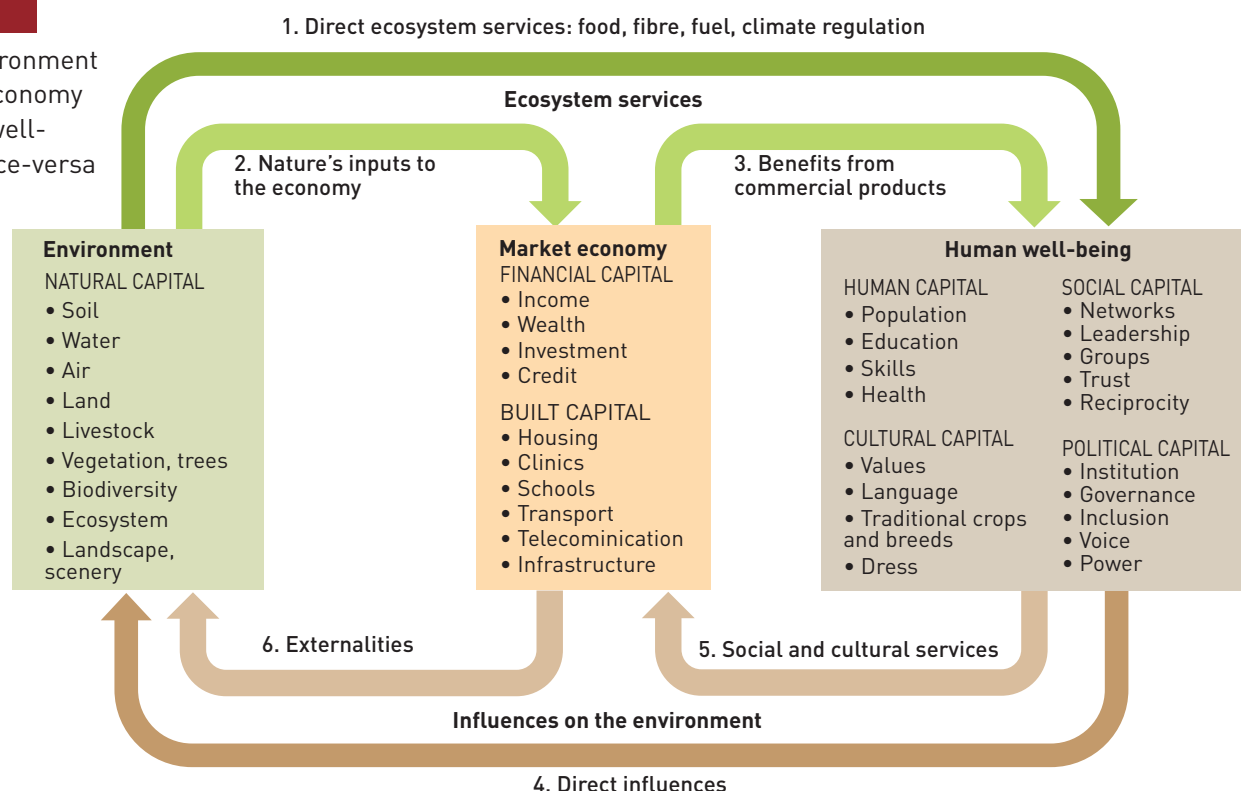
Pastoralist households get a wide range of products from their environment: food, fibres and skins from the animals, fruits, honey and leaves as gathered food, water for drinking and wood as fuel. Pastoralists also benefit from microclimate regulation, shade, manure as fuel or fertilizer, carbon sequestration and soil organic matter. These services are summarized as (1) in **Table 15**.

Indirect ecosystem services. Ecosystem services can also be indirect if they pass through the market economy first, before affecting human well-being. Pastoralists (and others) harvest a wide range of livestock and other products (2 in **Table 15**), then either sell them or barter them for other items they require (3 in **Table 15**). They may process some of these products before sale – for example making leather goods, butter or dried meat. They may also benefit from activities such as tourism and compensation for carbon sequestration.



**Figure 58**

How the environment affects the economy and human well-being, and vice-versa



**Table 15. Ecosystem services and influences on the environment**  
Dependency on natural capital Influence on natural capital

DEPENDENCY ON NATURAL CAPITAL	INFLUENCE ON NATURAL CAPITAL
<p><b>1. From natural capital to human well-being</b> Direct ecosystem services</p> <p><b>Livestock products and services consumed by herding household</b> Milk, wool, hair Meat, blood, hides/skins Livestock manure Animal draught</p> <p><b>Other products consumed</b> Honey, crops, wild plants, fruits, leaves Animals hunted for food Pasture, forage Wood for construction, fuel Medicinal &amp; ornamental plants</p> <p><b>Other services</b> Carbon sequestration (rangelands) Shade Water Livestock diversity Genetic resources Pasture diversity Pollination Greenhouse gas emissions (methane, nitrous oxide) Soil retention Nutrient cycling Atmospheric oxygen production Rain, water and water cycling</p>	<p><b>4. From human wellbeing to natural capital</b> Direct influences</p> <p>Hunting (exploitive) Protecting wildlife Controlling diseases Restoration of grassland Reseeding Fallow and conservation areas Grazing plan or system (rotations) Landscape maintenance Control of invasive species Grassland burning, or control of fires Over-exploitation of resources Wood harvest Conflict, abandonment Pollution, latrines, waste management Stone walls against wind erosion Access/feeder roads establishment Live fences &amp; trees for shade and against wind erosion Climate regulation Water harvest decisions (pumps, wells, dams) Land conversion</p>

Table 15.

&gt;&gt;

## 2. From natural capital to the market economy

Nature's inputs to the economy

### Livestock products and services sold

Live animals  
Milk, wool, hair  
Meat, bones, horns, hooves, hides, skins  
Honey, crops, wild plants, fruits, leaves  
Manure as fuel, fertilizer  
Animal draught

### Other products sold

Fodder grass, feed  
Wood for charcoal or fibre  
Honey, crops, wild fruits and nuts  
Medicinal and ornamental plants  
Fossils and precious stones

### Other services

Wild animals (tourism, hunting, sale)  
Habitat provision for wild animals/reserves

&gt;&gt;

## 5. From human well-being to the market economy

Social and cultural services

Labour  
Skills  
Creation of institutions  
Taking care of livestock  
Contingency planning & risk management  
Building knowledge systems  
Building social relations  
Preserving cultural heritage  
Building education & inspiration  
Vet service  
Advocating for territorial management  
Influencing policies  
Adaptive capacity (experiences)  
Flexibility (decision making)  
Mobility (opportunistic)  
Transport services  
Tourism services

## 3. From the market economy to human well-being

Benefits from commercial products

Potable water provision  
Livestock sales  
Meat and value added meat (dried) sales  
Sales of leather, hides & skin products  
Electricity provision  
Dairy sales (milk, cheese, ghee, butter)  
Artisanal wool products, wool and fibre  
Honey sales  
Charcoal sales  
Artisans from bones, horns & claws  
Artisans from wood and fibres  
Feed sales  
Income from ecotourism and recreation  
Manure sold as fuel  
Livestock as credit, savings and investment  
Livestock as private or collective insurance (risk pooling)  
Carbon sequestration (compensation schemes)

## 6. From the market economy to natural capital

Externalities

See above under Direct influences

### Market instruments

Payment for ecosystem services  
Certified value chains  
Incentive management  
Fiscal measures (taxes)  
Opportunity costs of converting land to conservation

### Command/control mechanisms

National parks & reserves  
Hunting licenses/controls  
Effective disease control  
Establishment of wildlife corridors  
Infrastructure / roads  
Pollution, latrines, waste management  
Land use change

### Information

Population dynamics, migration  
Live fences & tree for shade & against wind erosion  
Water management  
Climate-smart technologies  
Stone walls against wind erosion  
Controlling bush fires  
Delimiting & eliminating invasive species  
Pump stations & wells  
Water harvesting decisions (pump, well, dam)

## Influences on natural capital

People also affect the environment in various ways: both directly, and indirectly via the market economy (right side of **Table 15**).

### Direct influences

Pastoralists influence nature with their decisions and actions, such as with mobility, fallow and conservation areas, wood harvest and overexploitation of natural resources. They may follow a grazing plan, decide to restore, or maintain a landscape, plant trees, build roads, control an invasive species, burn rangeland (which encourages the growth of fresh grass) or, conversely, control fires. These services are listed as (4) in **Table 15**.

These influences may be either positive or negative. Positive impacts occur when people maintain and restore ecosystems. Negative influences include the overexploitation of resources (such as overgrazing, deforestation and desertification).

### Indirect influences

Influences may also be indirect, mediated via the market economy. Many of these are the same as direct influences, but tend to be worse when non-pastoralists are involved because they do not know or respect traditional rules for sustainable management. Examples

include large-scale land use change, habitat destruction and disturbance, biodiversity loss, lowering of the water table and pollution.

We can group positive indirect influences into three main categories. Governments and development agencies try to change behaviour in three ways: market instruments, command and control mechanisms, and information.

- Market instruments aim to provide “carrots”, or incentives for good behaviour. They include payment for environmental services, certified value chains for products, tax exemptions, and reducing the opportunity costs of land conversion.

- Command and control mechanisms involve direct investments or are enforced by laws and result in punishment if they are ignored. They are the “sticks” in the policy armoury. They include legislation on national parks and reserves, hunting licenses and controls, disease controls, the establishment of wildlife corridors, construction of roads and infrastructure, and pollution and waste management.

- Information instruments is subtler: it tries to persuade people to change what they do. It includes birth-control education to slow population growth, encouragement (or discouragement) of migration, persuasion to establish live fences or plant trees, and information on technologies such as water management and climate-smart technologies.







## 6 CONCLUSIONS

### PASTORALISM AS A LIVELIHOOD IN A TERRITORIAL CONTEXT

Pastoralism is a livelihood system based on grazing animals in a way that supports communities on marginal land subject to climatic extremes. Their resource management

methods provide pastoralists with sustainability, sovereignty, and flexibility. Pastoralism is in particular marked by rights to commons, customary values, and ecosystem services, which interlink the ecosystem with human wellbeing and the economy. It has a very low degree of dependency on external inputs and by a high degree of resilience to shocks, so can switch relatively flexibly from subsistence to market orientation without being transformed dramatically.

The community capital framework used in this report helps us recognize the essential interaction between human wellbeing and natural capital, reaching from subsistence to complex economies. Many ecosystem services support human wellbeing, and the pastoral system in turn returns important services to the environment. Pastoralists can adapt themselves swiftly to changing economic conditions. Occasions in which pastoralist access consistently urban markets to sell their produce or animals are not found always, since opportunity costs are cyclical and often not favourable. Processing milk into less perishable dairy products is a niche that pastoralists are increasingly exploiting.





## PASTORALISM TOWARDS CARBON NEUTRALITY

Pastoralism promotes healthy and productive ecosystems. Grass-fed ruminant systems have been often associated with detrimental environmental impacts, especially in terms of their greenhouse gas emissions and contribution to climate change.

Very few of the studies of greenhouse gas emissions from livestock considered the pastoral system in all its aspects including the mitigation potential of rangelands, the ecosystem services, and the overall carbon balance of different livestock systems. Recent studies have helped to highlight the positive aspects that extensive livestock systems such as pastoralism can have on the environment through **biodiversity conservation** and **sustainable management of grasslands**, which are important carbon sinks.

Figures for the carbon footprint and balance for pastoralist systems are not available. It is possible that pastoralism may actually be **carbon-neutral**.

## LAND AND MOBILITY

Crises and marginalization have put pastoralism back onto the political agenda. Decentralization, changed development narratives and advocacy are among the first signs of progress. But is it enough and what must change? Rangelands include drylands, deserts and patches of wetlands; all are important to the



livelihood and survival of pastoralists. A **territorial approach** that recognizes the entirety of this landscape is vital.

**Land tenure** is a major challenge for pastoralists, as most legal frameworks do not recognize customary land-tenure rights. Land titles, if they exist at all, are insecure. Outside investment tends to focus on high-value wetter patches in the drylands – which are vital grazing reserves for pastoral herds.

Pastoralist societies have elaborate **traditional rules and practices that can manage the land** and ensure property rights. National policies should support such systems by **allocating titles to communities** rather than individuals.

Pastoralists in **cross-border zones** may suffer from a minority status and disadvantages on both sides of the border. There are opportunities to engage with cross-border communities on improving practices in natural resource management, disaster risk reduction, social exchange, safety-nets, the control of animal diseases, managing markets, grazing rights, and security.

**Mobility** is essential for pastoralists to cope with risk. Mobility differed markedly among the pastoralist hotspots compared in this study: 61% of our respondents migrated less than 50 km a year. Constraints to mobility was probably the reason we found that migration and herd splitting were less important ways to deal with drought than selling livestock.





## INCLUSIVE POLICY MAKING

Pastoralists are usually excluded from decisions on policy and governance. **Decisions need to be inclusive and made in a participatory way**, otherwise they will lack legitimacy and risk being inappropriate.

**Local organizations**, often invisible at national or international scales, are vital at the local level. They perform multiple roles: acting as intermediaries between the state and communities, championing local rights, substituting for state institutions with limited capacity, providing services to pastoralists, and enabling access to markets. Their effectiveness may depend on state policies and on financing for grassroots organizations. They are often better placed than national governments to promote development in pastoral regions. National governments can take advantage of this by transferring resources and decision-making to district and community levels. However, decentralization is not always easy; in particular, it is important to avoid the emergence of local elites who benefit exclusively from development efforts. Local authorities need to work with civil society organizations in implementing local actions. Partnerships between community groups and local authorities can give pastoralists the opportunity to use their knowledge and **contribute to decisions**. Pilot programmes can be an effective way for local organizations to demonstrate their capacity. But that **capacity may need to be strengthened** first for such an approach to bear fruit.

Local organizations can use legal initiatives to tackle power imbalances and support marginalized groups.

## PASTORALIST DEVELOPMENT ACROSS SOCIETAL SCALES

Most current policies try to govern inputs into and outputs from pastoralist communities, rather than **empowering pastoralist society** itself. Policies dealing specifically with pastoralist issues are rare; most regulations that affect pastoralists are integrated into other policies. The most effective policies seem to be either associated with a powerful ministry or one that has technical capacity in pastoralist matters. Policies are not based on incentives, and coordination and enforcement are often lacking. Better coordination among public bodies would lead to benefits for pastoralists.

Our findings support the call for **decentralization of service provision**, as long as management is **inclusive** and financial capacities are sound.

**“Change agents”**, such as Community-based Animal Health Workers (CAHWs), teachers, community leaders, etc., who work at various societal scales or levels, from pastoralist households to community councils, civil society groups, and local and national authorities, can act as important catalysts for development. **Development is possible when territorial decisions are taken jointly**.

Communities use both formal and informal channels of communication with the government and the private sector, but links tend to be weak. Traditional community meetings are effective in less-educated communities, along with mobile phones.

## PRIORITIZATION OF STRUCTURAL IMPROVEMENTS

Investments in pastoral areas are affected by high transaction costs, both in financial and in political terms. This means that it takes much more engagement to serve the needs of communities for which only vague population and economic figures exist, and



which are scattered through a vast territory. As public expenditures are becoming more curtailed, this particularly affects pastoral areas and communities.

Even though investing in pastoral areas is costly, not doing so may be even costlier. Investments are needed to get **pastoralists as allies in managing and governing territories** that might otherwise degrade in agro-ecological, socioeconomic and political terms (through trafficking, banditry, harbouring terrorists, etc.).

Many investments have been made in **infrastructure** in pastoral areas in recent decades, but the infrastructure is still inadequate or poorly **adapted to the pastoralists' priorities**. **Roads** to permit access to dry-season grazing areas and **disaster-management measures** are lacking. Such investments should be prioritized and implemented jointly with pastoral communities.

## KNOWLEDGE EXCHANGE AND COMMUNICATION

Communication networks are undergoing a revolution in developing countries and promise to revolutionize pastoralist regions. **Mobile phones** allow pastoralists to connect both with neighbours and with the whole world. They allow them to receive instant market information, identify where to sell their livestock, perform financial transactions and participate in insurance schemes. They offer both privacy and interactive communication. They make it possible to get information on the status and location of water

points, grazing areas, livestock corridors, etc.

Nonetheless, **face-to-face communication** is still the most important mode of information exchange. That makes it important for services to use physical presence as the main form of outreach, but to increase their investment in mobile networks, telephony coverage and applications.

## VALUING PASTORALISM

Pastoralism is receiving increased attention, because of its benefits to rangelands and mountain ecosystems.

As a proof of this, we can mention the recently established Pastoralist Knowledge Hub initiative, aiming at facilitating pastoralists participation in policy dialogue; the UNEP declaration "Combating desertification, land degradation and drought and promoting sustainable pastoralism and rangelands" adopted in May 2016; and the coordinated efforts of a number of organisations, research institutes and civil society, to lobby for the establishment of an International Year of Rangelands and Pastoralists, which would provide a long-awaited visibility. Yet awareness of the values of pastoralism remains poor and valuations exercises are lacking.

There is a need for **research to measure the economic value of pastoralism**: the macroeconomic impact of pastoralism, the income of pastoral households, viability thresholds and targeting pastoral households, as well as data collection on livestock and research to understand pastoral systems and social dynamics and attempts to combat prejudices about pastoralism.

” **Pastoralism is more than livestock production; it is a way of life, a culture and an identity. We pastoralists are citizens, and our rights, culture and customary institutions should be recognized and respected. (International organizations and national policymakers should) recognize the uniqueness of our livelihoods that need tailored approaches and investments.**

*Statement of the special session with pastoralists and extensive livestock breeders, Rome, 13th of February 2016*

# ANNEX • 1

## Asian Consultation. Statement and Recommendations to IFAD

**Regional consultation with pastoralists and livestock breeders organizations in preparation of the Farmers' Forum Global Meeting at IFAD**

**Hustai National Park, Mongolia, 25-26 January 2016**

### **1. The Importance of pastoralism and livestock development for the development of rural areas in the region**

We, representatives of mobile pastoralists' communities and alliances from the **Asian region** including Inner, Greater, High, Central, South Asia and Russia, having met under minus / – 30 degrees in Mongolia, highlighting the unique characteristics and strategies of survival, resilience and adaptation of the nomadic tribes that have been lived and maintained their traditional knowledge preserving the fragile ecosystems of the planet for centuries, do herewith state as follows:

Customary or **traditional land tenure systems**, extensive land use and **production, mobility** or freedom of movement, **flexibility, adaptability** and **resilience** strategies are at the heart of pastoralism that provide vital response to unique ecological challenges and better solutions for more sustainable and equitable development.

Asia is extremely **vulnerable to climate change** due to its geographic location, vulnerable ecosystem, lifestyles and economy. Nomadic herders are particularly vulnerable to climate change. The livestock sector is an important contributor to climate change, through the production of **greenhouse gas emissions**.

Pastoralists are stewards of conserving rangeland biodiversity and protecting **ecosystem services**. The mobile pastoralism is an adaptive production strategy assuring the economic survival of hundreds of millions of people, as well as a way of life contributing to the sustainable management of natural resources and the conservation of nature.

Pastoral livelihoods are based on seasonal mobility and common property of natural resources (particularly rangelands), regulated by customary law and practices, customary



institutions and leadership, all making use of local and **indigenous knowledge**. **Mobility** plays a key role in survival, especially when catastrophic events such as the droughts and snow occur. The mobility is central to pastoralists' identity and relationships.

Pastoralists are the key players in **securing food and sovereignty** and **reduction of poverty** through providing **quality milk and meat products** as well as **leather, hides, skin, bones and fibre** with organoleptic characteristics that are appreciated by consumers.

Pastoralism **contributes to country economy** providing raw materials for processing industry, export and international trade and **to family livelihoods** providing job opportunity, especially for women and youth.

Pastoralism has been preserved **traditional knowledge and intergenerational transmission** (transfer of knowledge and inherit it from elders to youth) and it is a global cultural heritage.

The indigenous knowledge of pastoralists about **medicinal plants** can help fighting against diseases on a sustained basis. The identified medicinal plants, by the pastoralists, can be grown commercially which can provide employment as well as source of income for the marginalized mountain communities.

Pastoralists are **gene keepers** conserving **local breeds** and restoring **traditional herding practices**.

Pastoralism is essential for not only promoting cultural values but also providing alternative sources of livelihoods through **sustainable community based tourism** and limited quantity but **higher quality handicraft** productions.

Pastoralists are in **solidarity with one another**, regardless of distinctions of class, gender, religion, ethnicity, caste, nationality and culture as well as with other indigenous and farming communities. We commit ourselves to finding ways to solve conflicts over land and other natural resources with other communities. Furthermore, pastoralism supports agriculture and farmers in terms of manure system.

Pastoralism constitutes the **only possible livelihood in some (dryland) areas** where other forms of agricultural practices are impossible, thus it is the best utilization of natural resources. Pastoralists are the masters of their ancestral lands. Pastoralism is a **successful strategy** to support the marginalized population on less productive land, and **adapts well to the environment** as well as it is a source of livelihoods for the **marginalized mountain communities** of the world.

Lastly, pastoralism can produce **the maximum output with the minimum input**.

Despite the crucial contribution of nomadic and transhumant pastoralism to livelihoods and to national economies, and its role in preserving the fragile ecosystems of the planet, in many countries **we are not receiving the necessary direct attention and support**.

Pastoralists **do not enjoy equal rights** of access to education, health and other crucial services and facilities. They are **excluded from** fair access to and control of markets, information and knowledge that are necessary for their well-being and development, and are **marginalized in the political field**.

We are subject to **discrimination and social exclusion**. In some countries we are subject to **dispossession of natural resources, forced or induced sedentarisation and displacement**, censorship and violation of rights, and as a consequence of conflicts and adverse and ill-designed policies, legislation and development programmes.

**Pastoralists have been increasingly vocal at the international level but, as women, their voices have still not yet to be fully heard**. Pastoralist **women** have unique and equally valuable contributions to make to their own communities and the global community. The main challenges of pastoralists are stemmed at recognizing land and natural resource rights, building equitable value chains and market access, empowering pastoralist institutions and systems through respect for indigenous knowledge and genetic diversity



of breeds, cultural values of pastoralism and health benefits of pastoral products, enabling knowledge sharing and networking, ensuring **Free, Prior and Informed Consent** before all private and public initiatives that may affect the integrity of mobile indigenous peoples' customary territories, resource management systems and nature, and providing an appropriate policy support.

We call upon our brothers and sisters of all over the world to think what future we want there we need to agree how we move forward.

In doing so, based on the historical declarations of the world pastoralists including Dana /2002/, Segovia /2007/, Mera /2010/ and Kiserian /2013/ as well as Hustai /2015/ declaration that has recently been approved by the central and greater Asian pastoralists hereby we as Asian pastoralists propose and recommend to IFAD the following:

## **2. Priority areas for investments in pastoralism for pastoralists and livestock breeders and recommendations for the partnership with IFAD**

- **INVEST** for IFAD itself to get deeper understanding about pastoral societies, dynamics and economy before designing interventions impacting on the reliance of dryland economies and livelihoods.
- **EMPOWER women and implement projects focus specifically on women's role in pastoralism.** Women are guards of healthy food, healthy people, they transfer traditional knowledge. When people have enough food they will not fight. When there is no food, people fight with each other. Here women's role is essential to build peace. Women are the ones who hold that peace.
- **PROVIDE social services** (education, health, insurance, emergency, access to credit and other services), adequate and appropriate health services and health education for nomadic communities, including mobile clinics and migratory frontline health workers, with special consideration for pregnant women and children
- **CARRY OUT training and learning programme for pastoralists** through mobile/ nomadic learning programme or **pastoralist field school** (to train pastoralists on leadership, community self-organization, market orientation, first aid-health, identifying pasture carrying capacity etc)
- **PROMOTE** education of children in mobile communities by providing mobile and boarding schools as required, using the indigenous or local languages, and **RESPECT** the dignity of mobile communities by incorporating in the teaching curricula elements of the local culture and indigenous knowledge;
- **DEVELOP strategies and mechanisms** to support pastoralists to reduce the impact of droughts and climatic change
- **SUPPORT projects on Community-based tourism** as an alternative income generation for the pastoralist women and **promote nomadic and indigenous art and crafts**
- **ESTABLISH primary raw material processing units in the rural areas and develop value chain /value added production**
- **ESTABLISH livestock fodder production units run by pastoralists** in the rural areas and exchange experience from each other
- **ENSURE** safeguard, protection and improvement of **local and indigenous breed's gene pool** /i.e: yak, cattle, sheep, reindeer, Buryat breed etc/
- **INVEST in community-based conservation of traditional breeds and their animal genetic resources** as a viable strategy for climate change adaptation. **SUPPORT** a pilot project on restoration of endangered Buryat cow in Siberia (a breed developed by local pastoral communities, who employed their indigenous traditional knowledge of breeding and the local ecosystem to create an animal genetic resource that is perfectly adapted to its unique environment) as a collaborative effort of pastoralists communities, researchers and breeders NGOs
- **IMPROVE technology of milk and dairy product processing**, especially for women to lighten their labour load
- **IMPLEMENT a promotion programme for pastoralists**, especially for young pastoralists (due to the migration from rural to urban areas)
- **MANAGE pastoralist and livestock risks** through joint research and training with professional institutions, researchers and experts
- **ORGANIZE an exchange programme** between countries (i.e.: South South cooperation) in the region

- **IMPLEMENT livestock health programme** (i.e: prevention from parasites and release from parasites)
- **SUPPORT projects on reproduction of environment through planting trees and shrubs** and other plants in the specific condition such as in Gobi desert and protect from sand movement and cope with desertification (i.e: plants)
- **SUPPORT to use remote pastures** through building and repairing wells and irrigation and roads
- **SUPPORT to use solar and wind energy** to use underground water for pasture irrigation and other activities
- **ORGANIZE census and data collection** on pastoralists and livestock
- **PROVIDE transportation facility for pastoralists** /women and children, who move on feet (walking) for 200-2000 km during the migration from seasonal pastures
- **DOCUMENT** the information about medical plants species & indigenous knowledge of the Pastoralists;
- **RAISE** awareness among pastoral families about the importance of different varieties of medicinal plants both for biodiversity and income generation;
- **PROVIDE** technical support and seeds to pastoral communities for plantation of medicinal plants
- **BUILD** the capacity of pastoral communities on propagation, managing, harvesting and marketing of medicinal plants for income generation and biodiversity conservation and
- **ESTABLISH** market linkages of Pastoralists with local markets for selling of medicinal plants.

These initiatives will generate the following positive outcome:

- Contribute to the rural development
- Employment opportunity
- Livelihoods improvement
- Contribute to nature conservation and environmental protection
- Value of the raw materials will be increased in value chain development
- Pasture recovery and effective use of pasture, further supports alternative income generation activities

### 3. Priority areas for policy dialogue, advocacy and other policy initiatives in support of organizations of pastoralists and livestock herders. Recommendations for the partnership with IFAD

- We propose IFAD to develop a **guideline for indigenous pastoralist women** and make sure and enable their physical participation in the global debates and provide a chance to the women to speak and involve in decision making processes
- We propose IFAD to develop a special programme for **pastoralist youth** and give an opportunity to do **an internship and other technical advisory** work to the IFAD's work on pastoralism and indigenous peoples.
- **ENSURE** participation of pastoralists in the FAFO meetings and its Steering Committee
- **SET UP** Pastoralist Forum at IFAD and organize the forum once in every 2 years
- **RECOGNIZE and RESPECT** our customary laws, customary institutions and leadership, and our common property rights and customary governance and use of natural resources that we have managed sustainably by using them seasonally or as buffer zones in times of climatic and other disasters
- **PROMOTE** conditions and mechanisms for lasting peace and conflict resolution at all levels;
- **CORRECT** urgently government policies and plans favouring only sedentary populations with the full participation of concerned nomadic peoples, and **PROMOTE** policies and international legislation to facilitate cross-border mobility by pastoral and other nomadic peoples who have traditionally lived in more than one country, and facilitate free movement of herds respecting relevant safeguards where needed;
- **RESPECT** pastoralism and mobility as distinctive sources of cultural identity, integrity and rights;
- **ENABLE** adequate representation of pastoralists interests in legislature through quotas (ex. Afghanistan) [Voluntary guidelines on tenure...]
- **ENSURE** effective application of international instruments and mechanisms on protection of rights of indigenous pastoralist communities and alliances on the regional,

- national and local levels (Voluntary guidelines, bio-cultural protocols, UNDRIP...)
- **ENSURE** participation of decision-makers of all levels in the regional and global pastoralists meetings (through quotas if needed)
- **FACILITATE** exchange of best practices on leadership of pastoralists especially youth, women and elders through development of training modules, study tours and trainings with support of various IFAD programmes
- **IMPROVE** state control and accountability mechanism on professional veterinary services adapted to pastoralists
- **SUPPORT** local initiatives on revival of aboriginal livestock breeds and revival of traditional pasture management institutions
- **SUPPORT** a unified communication platform of pastoralist communities, publishing of information materials, bulletins, and newspapers, pastoralist knowledge hub website and online forum

#### 4. How organizations of pastoralists and livestock herders can be associated at the different stages of IFAD business model – country strategy development, project design, projects implementation and supervision, and overall IFAD programme implementation

##### Local level:

- **STRENGTHEN** pastoral organization: capacity building in order to improve the collaboration with governments and IFAD (improve representation of pastoral organizations and their networks)
- **ENSURE** that pastoralist organizations are represented in the Country Programme Management Teams to enhance their participation in the formulation of Country Operational Strategy programmes and the process of designing, planning, implementation and supervision of country programmes and projects.
- **RECOGNIZE** the role of Pastoralist organizations by IFAD in providing feedback on the impacts of country programmes and projects implemented in pastoralist areas during projects implementation phase and programme/projects evaluations.
- IFAD supported projects must be **INFORMED** by Free Prior and Informed Consent (FPIC) by pastoralist communities within proposed project areas to avoid projects that do not guarantee pastoralist safeguards – forced displacements, evictions, land use rights). - IFAD shall increase its financial support to pastoralist organizations and institutional building of pastoralist women organizations.
- **DESIGN** projects building on lessons learned and good practices identified from successful recognized projects implemented/designed by local organizations in identification phase
- **INVITE all stakeholders** at local level (research and academia, users, local authorities, ministries, NGOs/CSOs) in project design during the identification phase.
- **INVOLVE** beneficiaries (pastoral user groups and government) in evaluation and monitoring through participatory methods (equally responsible participation); improve mechanisms of knowledge sharing and exchange experiences of implemented projects
- **IMPROVE** coordination between donors/projects/technical partners (for instance, use the same SMART indicators and data, standardization)
- **ASSURE** better transparency and communication by IFAD among all stakeholders on all processes (COSOP, project identification, design, supervision, evaluation), including through mass media for herders
- **PROMOTE** multi-country approaches and programmes, in order to take into account transboundary issues: mobility routes, markets, diseases...etc.
- **ENSURE** pastoralist communities and cooperatives should be responsible of the sustainability of the project activities, infrastructures and further investments

##### Regional level:

- **EXCHANGE** experiences with other countries which have the same type of animal husbandry
- **ENSURE** participation of **regional pastoralist associations** in project design and the projects should be implemented through pastoralist associations

##### Global level:

- **INVOLVE** representatives of PACA (Pastoralist Assembly of Central and Greater Asia) in the steering committee of the Farmer Forum. This will help better identify and manage projects.



- **SET UP** Pastoralist Forum at IFAD with equal representation of women, youth and men as well as regional and country balance
- **ENSURE** equal participation of women and man in all levels of consultations and decision making processes. Voice and physical representation of pastoralist women in global debates, consultation and decision making and leadership of women and youth in pastoralism need to be recognized and realized.
- IFAD funded projects should be **ALIGNED** with national policies, strategies, etc.

In reference to the above all and with aims of better coordination, we as pastoralist representatives of Asia propose the following:

- Within the framework of **Pastoralist Knowledge Hub** in support of UNFAO the **Pastoralist Assembly of Central Asia /PACA/** should host a **Nomadic Center of Excellence in Mongolia** in the heart of Asia with respect to its neutrality and politically favorable country to jointly implement the above mentioned priority areas for the Asian pastoralists. In this regard, we propose that **IFAD is in a position to support and invest the proposed priority areas with specific attention to the role of women in pastoralism and empowerment of youth** under the sub activities to be implemented by the **Center of Excellence**.
- Furthermore, we as pastoralist representatives from Asia strongly propose the international organizations to pay very special attention on **yak-keeping communities in the high-mountain areas in Asia** for their livelihoods, urgent need for access to different levels of representation, consultations and decision making, given their greater vulnerability but also due to the crucial role they play in the custodianship of the largest headwater system in the world, key piece in the map of the current global environmental crisis. In this regard, we propose and recommend the IFAD, FAO, and other institutions to take this initiative into account and invest in strengthening of the **World Yak Herders Association** initiated and facilitated by YURTA Association, with the long experience of collaboration on pastoralism (WAMIP, WISP, PACA, FAO), in partnership with PACA and other yak herding communities, organizations and institutions in Greater Central Asia.

We take this opportunity to convey our message to the UNFAO Pastoralist Knowledge Hub Secretariat the following:

- We **SUGGEST** the FAO to strengthen its relationships with IFAD and other institutions in order to build synergy on the policies and activities to support the regional pastoralist networks
- We **PROPOSE** that FAO is in a good position to support the pastoralists through implementing Capacity building programme with specific focus on mobile or pastoralist field school programme
- We **CALL UPON** FAO to improve coordination and communication on the Pastoralist Knowledge Hub and liaise with the regions directly for any consultation, discussion and decision making that matters pastoralists

Furthermore, taking this opportunity to convey our message to **EBRD, World Bank, EU and other international institutions** on the following:

- We as Asian pastoralist representatives **PROPOSE** the institutions to support pastoralism through providing information on the opportunities to improve our livelihoods, giving financial and technical support on the needs that are under their priorities
- We **PROPOSE** the international institutions open a new line to support to the nomadic pastoralists

We also take this opportunity to convey our message to **the States** on the following:

- We as representatives of Asian pastoralists **CALL UPON** the member states to participate in national and regional consultations and listen to our voices
- We **CALL UPON** the member states to look at pastoralism as one of the most important and viable economic development strategies that keeps the cultural and historical identity of many nations



We, the pastoralist organizations of Asian region meeting at Hustai National Park, Mongolia on 24-26th of January 2016 are fully committed to pursue pastoralism as source of life, well-being, peace and contribution to environmental, social, economic and political significance and we can be of greatest service to the entire human community.

This statement and recommendation is the expression of our needs and priorities that need to be urgently taken into account. We wish it to be taken as a message of Asian pastoralist alliance to policy makers and international organizations to take action in our favour. We support the continuity of Pastoralist platform at IFAD and FAO and wish to contribute to them through this statement.

We will work together to participate in international policy making related to land and food production and wish to collaborate with international bodies whose purpose is to promote the integrity of livelihoods, cultures and nature including IFAD, FAO, UNESCO, UNEP, WHO, GEF, WORLD BANK, EBRD, EU, IUCN, VSF International and other international agencies and non-governmental organizations.

#### Organizations present:

- Pastoralist Assembly of Central and Greater Asia (PACA)
- Mongolian Alliance of Nomadic Indigenous Peoples (MANIP), Mongolia
- Baikal Buryat Center for Indigenous Culture (BBCIC), Russia
- League of Pastoralist Peoples, Raika pastoralist community, Rajasthan, India
- Government of Afghanistan, Ministry of Food and Agriculture, Afghanistan
- Dutch Committee for Afghanistan, Kuchi Pastoralist Community, Afghanistan
- Sukhi Development Foundation, Pakistan
- Central Asian University and Central Asia Mountain Hub
- Yurta Association and World Yak Herders Association (WYHA), Nepal
- Federation of Arkhangai Yak Herders, Mongolia
- Khentii eastern region pastoralist cooperative, Mongolia
- Gobi desert and steppe camel herders cooperative, Mongolia
- Altai and Sayan mountain pastoralist movement, Mongolia
- Hustai National Park, Mongolia
- National Association of Mongolian Agricultural Cooperatives (NAMAC), Mongolia
- Embassy of France in Mongolia
- Swiss Cooperation Agency and Green Gold Project
- UN FAO in Mongolia
- The Christensen Fund
- Association of Protecting Altai Cultural Heritage, Mongolia and Russia
- VSF International
- AVSF France
- AVSF Mongolia
- IFAD

# ANNEX • 2

## Consulta regional América Latina con organizaciones de pastoralistas y criadoras/es de ganado extensivo en preparacion del encuentro mundial del Foro Campesino (FIDA)

### Construyendo un entorno favorable al desarrollo del pastoreo en América Latina

La Paz, 17 al 19 de enero del 2016

Principales conclusiones de los Grupos de trabajo sobre cuestiones específicas con organizaciones de pastores y el FAFO – FIDA

#### TRABAJO DE GRUPO 1 - La importancia del pastoreo y la ganadería para el desarrollo de las zonas rurales de la región

- El pastoreo nos garantiza la seguridad alimentaria y soberanía
- Garantiza la economía familiar – nos permite generar nuestro propio empleo.
- Promueve el desarrollo comunal y la Identidad de las comunidades indígenas campesinas respecto a esta temática.
- Conserva la cadena ecológica – conservación de especies; vemos que la ganadería extensiva es de manera natural, ecológica y permite conservar la biodiversidad, no estamos destruyendo nada para producir.
- Promueve la incidencia de los pueblos en las Políticas Publicas.
- Intercambio entre los distintos pueblos
- Revaloriza los saberes ancestrales de nuestras regiones.
- Pastoreo favorece la comunicación de persona a animal, la forma de relacionamiento del hombre con la naturaleza misma.
- Protagonismo en toda la Cadena Productiva; queremos ser parte de la producción y la industrialización y la comercialización de nuestro productos.
- Genera bienes naturales y no mercancías; el pastoreo para nosotros no solo es un recurso para crear plata, es parte de nuestra vida, es producir para seguir viviendo.
- Aporta sostenibilidad y respeto a la madre tierra
- Revaloriza tecnología y técnicas ancestrales de acuerdo a nuestras regiones.
- Valorización de la medicina tradicional; nosotros sabemos cómo curar a nuestros animales y con plantas del lugar.
- Mantiene las pasturas nativas
- Unifica el lenguaje; podemos ser de diferentes regiones geográficas (valles, amazonia, chaco, altiplano), pero sabemos de lo que estamos hablando y nos entendemos a nivel global.
- Metodología campesino a campesino, nos pasamos formando y pasando información entre nosotros mismos.
- Mantener territorio y cultura; no solo es actividad económica es una actividad de vida por tanto está lleno de cultura.
- Evita la migración con apoyo.
- Genera oportunidades y por tanto la gente puede volver al campo
- Mantiene sostenibilidad para la educación, estamos hablando de una educación





especializada y de calidad en el campo. Si los estados no proporcionan educación de calidad en el campo, entonces es natural que la migración sea fuerte en nuestros territorios.

- Genera otras alternativas económicas; el pastoreo es una alternativa económica y con ello genera otras actividades económicas, entonces por ello sostenemos que la actividad pastoril genera e impulsa la economía local de nuestros territorios.

#### **TRABAJO DE GRUPO 2 - Identificación de áreas prioritarias para las inversiones en el pastoreo extensivo de los ganaderos y/o pastores y recomendaciones para la asociación con el FIDA.**

- Los proyectos de inversión para los productores de ganado pastoreado de forma extensiva deben ser integrales, que contemplen toda la cadena productiva, pero también debe ir a fortalecer la forma de organización que cada comunidad y/o pueblo asumió, con el fin de garantizar la sostenibilidad del proyecto.
- Los proyectos de inversión no deben ir a beneficiar solo a unas cuantas familias, rompiendo la lógica de organización territorial – comunidad que existe. Los proyectos deben respetar las formas de organización de los campesinos y pueblos indígenas.
- Los proyectos de inversión son diseñados en escritorio, y cuando llegan al campo descubren que no se puede aplicar, pues está diseñado bajo la mirada mercantil, y sin considerar los pisos geográficos que existen en nuestros países.
- Si bien existen recursos de parte del estado, cooperación internacional y ONGs, pero la mayoría de estos recursos se van para la burocracia y la investigación. Recomendamos que el FIDA invierta en proyectos de desarrollo productivo que contemple toda la cadena productiva, con el fin de acabar con los intermediarios tanto de carne, como de las lanas.

#### **TRABAJO DE GRUPO 3 - Identificación de áreas prioritarias para el dialogo sobre políticas, la promoción y otras iniciativas políticas en apoyo de las organizaciones de pastores y ganaderos. Recomendaciones para la asociación con el FIDA.**

- Es preciso que se genere una ley específica para el ganado menor en los diferentes países, dicha ley debe contemplar las particularidades del pastoreo del ganado de forma extensiva, puesto que las actuales leyes son dirigidas a los grandes empresarios que producen ganado de forma intensiva.
- Incentivar el Fortalecimiento de las organizaciones de productores a nivel local, provincial, regional y nacional.
- Formalizar las organizaciones como entidades que tengan personería jurídica.
- Promocionar viceministerios y/o direcciones de producción de ganado de forma extensiva en todos los Estados, que se ocupen de toda la cadena productiva en cualquier gobierno que sea una política de Estado para no ser un sector atendido por proyectos y que cuando se acabe el proyecto volvamos a ser los olvidados de siempre.

- Apertura de dialogo con los Actores Involucrados sobre políticas, proyectos, promoción y financiamiento.
- Generar propuestas de la “Ley de Camélidos Sudamericanos”, donde debe contemplar la producción, promoción, transformación, comercialización y gestión
- Dialogar con la Gran Empresa Textil – porque ellos tienen el Monopolio, debemos dialogar con ellos porque no podemos permitir que ellos impongan sus condiciones, debemos entrar en acuerdo sobre todo los precios y el Estado/FIDA debe generar esas condiciones.
- Dialogar con la gran empresa minera sobre la responsabilidad social y medio ambiental.
- Cumplimiento formalización minería informal – Ministerio de Medio Ambiente-DREM.
- El dueño legalmente de los recursos nacionales en la Argentina son las provincias, entonces los recursos del FIDA viene al gobierno nacional y luego la nacional negocia con las provincias.
- Como recomendación es fortalecer las organizaciones y así podemos hacer respetar nuestra voz, para que se respete nuestras demandas.
- También es importante que con todas las instituciones que se encuentran identificadas conformen una plataforma, donde podemos discutir diferentes temas y todos hablamos del tema desde diferentes enfoques, así todos jalamos en la misma dirección.
- La extranjerización de la tierra es una amenaza que está pasando en nuestros territorios, expulsando a los pueblos indígenas a los barrios periféricos de las ciudades, y principalmente a los pastores nos está afectando porque cada día nos disminuyen las áreas de pastoreo.

Por las razones expresadas anteriormente creemos que el FIDA debe promocionar y condicionar los préstamos a nuestros países a la realización de Foros Nacionales, como espacios donde nos encontremos de igual a igual el Estado, los productores de ganado de pastoreo extensivo y la cooperación, para negociar y priorizar las áreas de intervención y la forma de intervención en el campo. Como medida de sincerar los recursos que llegan a nuestros países mediante los gobiernos. De esta manera podemos llegar al FAFO con propuestas más realistas y generando participación plena de todos los productores y productoras.

**TRABAJO DE GRUPO 4: Discusión sobre como las organizaciones de pastoreo y ganaderos se pueden asociar a las diferentes etapas del modelo de negocio del FIDA: Desarrollo estrategia país, Diseño del proyecto, Implementación de acciones, Supervisión y Aplicación general del programa del FIDA.**

- Son necesarias organizaciones fuertes en lo político, económico y productivo con una base social organizada desde lo local, regional, nacional y global. Este es un primer paso que el FIDA debería promover a nivel nacional y global.
- Planteamos a los gobiernos nacionales llevar a cabo, junto al FIDA, Foros Campesinos nacionales para generar:
- Verdadera representatividad en los espacios globales elegidos por las organizaciones con legitimidad.
- Respeto a los mecanismos de toma de decisión de las organizaciones.
- Desarrollar capacidades de las y los dirigentes para incidir.
- Mantener la vigencia específica del sector de criadores de ganado móvil en cualquier evento global.
- Consultas del FIDA a las Organizaciones de productores y/o criadores de ganado móvil para definir las áreas prioritarias de intervención por país y no solo a los gobiernos, diferenciando Políticas Públicas de las Políticas de los Pueblos

**Discusión plenaria sobre las principales conclusiones y recomendaciones de la consulta regional y los mensajes de las organizaciones de los pastores para Sesión especial FAFO.**

Una vez realizado el análisis y debate de las principales acciones realizadas en la Consulta Regional con Organizaciones de Pastoralistas y Criadoras/es de Ganado Extensivo en Preparación del Encuentro Mundial del Foro Campesino “Construyendo un entorno



favorable al desarrollo del pastoreo en América Latina” los y las participantes consensuaron y aprobaron por unanimidad una resolución general del evento donde se expresa las principales conclusiones, recomendaciones y mensajes para la Sesión Especial sobre Pastoralismo y el Foro campesino a realizarse el febrero próximos en Roma Italia.

## RESOLUCIÓN FINAL

### **Principales conclusiones y recomendaciones de la Consulta Regional y mensajes de las organizaciones de productores y/o criadoras/es de ganado extensivo al Foro Campesino – FIDA**

Las y los asistentes a la Consulta Regional de las organizaciones de productores y/o criadoras/es de ganado extensivo de Argentina, Bolivia, Chile, Paraguay y Perú, reunidos y reunidas en la ciudad de La Paz-Bolivia los días 17, 18 y 19 de enero del 2016, luego de trabajar temas de nuestra agenda, llegamos a las siguientes resoluciones en torno a los siguientes puntos:

1. Informe del Estudio Regional sobre productores de ganado camélido, caprino, ovino, bovino
2. La importancia del pastoreo y la ganadería extensiva para el desarrollo de las zonas rurales de la región
3. Como organizaciones de organizaciones de productores y/o criadoras/es de ganado extensivo se pueden asociar a las diferentes etapas del modelo de negocio del FIDA

### **RESOLUCIONES:**

#### **a) Informe del Estudio Regional sobre productores de ganado camélido, caprino, ovino, bovino**

VSF expone los resultados del estudio realizado en cinco países, a través de un documento informe y una presentación de resumen de los datos. En general, los instrumentos de recopilación de datos son ponderados muy positivamente, porque permiten obtener información para el análisis de nuestra realidad, y con ello, poder tomar decisiones, hacer planificaciones, gestionar recursos y fortalecer nuestras propias organizaciones.

En cuanto a los resultados de la Consulta fueron validas por los asistentes; esto quiere decir, que la síntesis de la información expuesta a través de cuadros de frecuencia y porcentajes, tablas y gráficos refleja la realidad de todos y cada uno de los diferentes países. Sin embargo, se encontraron VACÍOS, es decir áreas o temas no abordados, que son de preocupación y es por ello, que se demanda complementar este instrumento de diagnóstico con lo siguiente:

- **Indagar acerca de las políticas sociales y la gestión territorial de los productores y/o criadoras/es de ganado extensivo, en base a los derechos de los pueblos indígenas, amparados en las normas internacionales y nacionales acerca de la autodeterminación de los pueblos**
  - Existen políticas de los productores y/o criadoras/es de ganado extensivo que no son del Estado



- Reconocer políticas de los pueblos que a veces son contradichas con las Políticas Públicas (PP) y los Estados
  - Análisis más profundo de la orientación de las políticas públicas (a favor del agronegocio y en contra de los productores y/o criadoras/es de ganado extensivo)
  - Muchas políticas públicas son diseñadas por funcionarios públicos que no conocen la realidad de los productores y/o criadoras/es de ganado extensivo
- **Estudio más profundo sobre Tierra, Territorio y ganadería extensiva**
    - Estudio más detallado acerca de las distintas formas de Tierra Comunitaria
    - Territorios deben estar en manos de los pueblos indígenas, campesinos, criadores de ganado
    - Cantidad de tierra (extensión), la calidad de las pasturas y de acceso a la misma determina el tamaño de los rebaños (pequeños, medianos)
    - Gestión comunitaria para pasturas comunales
    - El ganado también es dueño de la tierra: considerar el caso de los animales silvestres como la Vicuña, Huanaco, Ciervo Rojo, etc.
    - Hay animales silvestres hacia los cuales los productores y/o criadoras/es de ganado extensivo tienen respeto y reconocimiento
    - Políticas de privatización, extranjerización, latifundio, deforestación de las tierras afectan gravemente a la actividad ganadera
    - Entender los conflictos territoriales de manera más amplia
    - Gran minería – extractivismo = contaminación agua, expulsión del territorio a los productores y/o criadoras/es de ganado extensivo
    - La relación mataderos/territorio afecta las posibilidades de comercialización de carne y derivados
    - Existe una relación entre territorio y productores y/o criadoras/es de ganado extensivo, en torno a la sostenibilidad territorial
    - Territorios con migración y presencia multinacional
    - Derogación de leyes que favorecen al latifundio y a las empresas mineras.
- **Se necesita mejorar las tipologías de productores y/o criadoras/es de ganado extensivo– hacer rangos:**
    - Por cantidad de Ganado
    - Por tamaño de la parcela tierra en hectáreas
    - Identidad cultural
- **Indagar acerca de los depredadores naturales – puma, zorro, perros y las acciones que se toman**
- **En educación es importante conocer el nivel de instrucción de los productores y/o criadoras/es de ganad- extensivo**
    - Si la asistencia técnica es especializada o vienen a aprender de nosotros
- **En economía**
    - Si hay políticas públicas y recursos financiados por países, no llegan a los pastores, cuantificar la efectividad
    - Identificar si los pastores se encuentran en pobreza o en zonas de pobreza y las consecuencias de esto
    - Definir los rango cuando se habla de pequeño, mediano y gran ganadero
    - Visibilizar los proyectos destinados a los pastores y sus efectos
    - Identificar de mejor manera a los intermediarios que compran fibra, carne. Si el intermediario gana entre el 35% y 90% del precio de venta, este se convierte en la principal barrera
    - Identificar el manejo transparente de fondos evitando que estos se concentren en la burocracia estatal - Transferencias directas
    - Indagar más acerca de la burocracia, no como barrera sino como desvió de fondos que podrían llegar de manera directa a los productores y/o criadoras/es de ganado extensivo
    - Como los pastores encaran aprovechar las oportunidades y las fortalezas y evitar el

asistencialismo?

- Cuál es el grado de definición de los precios de los productos, como la fibra de los camélidos
  - ¿Los mercados toman en cuenta a los productores y/o criadoras/es de ganado extensivo?
  - Debe cuantificar el impacto de los tratados de libre comercio que atentan contra la actividad ganadera a pequeña escala, que están hechos solo para las grandes agroindustrias
  - Cual el aporte del sector al PIB, nos vinculan con la economía informal, lo no rentable, no aportamos al PIB = Hacen programas culturales y no productivos para nosotros
- **La consulta no recoge los aspectos humanos de los productores y/o criadoras/es de ganado extensivo, es decir, sus sufrimientos, el sacrificio, la defensa de la soberanía territorial fronteriza**
    - Identificar a los enemigos que atacan a los productores y/o criadoras/es de ganado extensivo y buscan su desaparición
  - **De debe investigar con mayor profundidad la vivencia y aportes de las mujeres.**
    - No se reconoce su aporte en la ganadería
    - No tienen acceso a la tierra
    - Su participación en toda la cadena productiva, alimentaria y familiar
    - La violencia dentro de la familia y la sociedad
  - **No se relaciona la actividad ganadera con la visión de la soberanía alimentaria, que es una visión desde los pueblos orientada a garantizar la alimentación en relación mutua con la madre tierra (aportes de la Vía Campesina).**
    - Cuál es el papel de los criadores de ganados en la alimentación de la población, cuál su aporte a la soberanía alimentaria?
    - El aporte de la ganadería extensiva móvil a mitigar el cambio climático o La ganadería debe ser extensiva y ecológica o Qué productos se intercambian entre criadores, trueque
  - **Establecer con mayor precisión el tema medio ambiental como el efecto de la contaminación de los ríos y fuentes de agua**
    - El acceso al micro y macro riego

Todos nosotros y nosotras estaremos satisfechos de que se incorpore estos otros temas en la Consulta que se hace sobre las actividades de los pastores para tener una idea más cabal de nuestra realidad.

## **b) Cuestiones específicas entre Organizaciones de productores, criadores de ganado Móvil y el FAO**

### **1. La importancia del pastoreo y la ganadería extensiva para el desarrollo de las zonas rurales de la región**

Las conclusiones del grupo de discusión acerca de la importancia del pastoreo son las siguientes:

- Garantiza la soberanía y seguridad alimentaria.
- Garantiza la economía familiar – autoempleo.
- Promueve el desarrollo comunal – identidad.
- Conserva la cadena ecológica – conservación especies.
- Promueve la incidencia de los pueblos en las políticas públicas.
- Genera el intercambio entre pueblos.
- Revaloriza los saberes ancestrales.
- Pastoreo favorece la comunión persona – animal madre tierra.
- Protagonismo en toda la cadena productiva.
- Genera bienes naturales y no mercancías.

- Aporta sostenibilidad y respeto a la madre tierra.
- Revaloriza tecnología ancestral.
- Valorización de la medicina tradicional.
- Mantiene las pasturas nativas.
- Unifica el lenguaje y saberes de los pueblos.
- Metodología campesina/o a campesina/o.
- Mantiene y conserva el territorio y la cultura de los pueblos.
- Evita la migración, siempre y cuando tenemos apoyo.
- Genera oportunidades - vuelta al campo.
- Mantiene sostenibilidad para la educación.
- Genera otras alternativas económicas.

## **2. Cómo las Organizaciones de productores y/o criadoras/es de ganado extensivo se pueden asociar a las diferentes etapas del modelo de negocio del FIDA**

Las conclusiones del grupo de discusión acerca de la asociación para las diferentes etapas del modelo de negocios del FIDA son las siguientes:

Son necesarias organizaciones fuertes en lo político, económico y productivo con una base social organizada desde lo local, regional, nacional y global. Este es un primer paso que el FIDA debería promover a nivel nacional y global.

Planteamos a los gobiernos nacionales llevar a cabo, junto al FIDA, Foros Campesinos Nacionales para generar:

- Verdadera representatividad en los espacios globales elegidos por las organizaciones con legitimidad.
- Respeto a los mecanismos de toma de decisión de las organizaciones.
- Desarrollar capacidades de las y los dirigentes para incidir.
- Mantener la vigencia específica del sector de criadores de ganado móvil en cualquier evento global.
- Consultas del FIDA a las Organizaciones de productores y/o criadores de ganado móvil para definir las áreas prioritarias de intervención por país y no solo a los gobiernos, diferenciando Políticas Públicas de las Políticas de los Pueblos

### **Las organizaciones participantes:**

#### **Regional:**

Red PastorAmérica

#### **Argentina:**

Redes Chaco

Santiago del Estero

#### **Peru:**

Ganadería MAVIC

Comunidad Alpaquera Cullo

Productora Alpaquera Crucero

Central de Cooperativas de Servicios Especiales Alpaqueras de Puno

#### **Bolivia:**

Asociación Departamental de Productores de Camélidos (ADEPCA)

Organizaciones Económicas Comunitarias (OECOM) - Alto Yarake

Pueblo indígena Killakas

Asociación Nacional de Productores en Camelidos (ANAPCA)

Comunidad Chuñavi

#### **Paraguay:**

Coordinadora Nacional de Mujeres Trabajadoras Rurales e Indígenas (CONAMURI)

#### **Chile:**

Comuna Coquena

Comunidad Ganadera de Guallatiri

Área de Desarrollo Indígena (ADI), comuna de Putre

Comuna Indígena Visviri

Comuna Camarones



# ANNEX • 3

## Eastern and Southern Africa Consultation: Statement and recommendations to IFAD

### Regional consultation with pastoralists and livestock breeders organizations in preparation of the Farmers Forum global meeting at IFAD

**Lukenya - Nairobi, 22-23 January 2016**

#### **The Importance of pastoralism and livestock development for the development of rural areas in the region**

We, representatives of pastoralists' communities from the Eastern and Southern African region, having met and discussed widely on the topic of pastoralism in the climate change era, dynamic African Governance systems and diverse policy and regulatory frameworks do herewith state as follows.

Pastoralism in Africa continues to contribute substantially to the national GDPs of our countries while at the same time providing essential services to ecological integrity, protection and conservation of nature that continues to support the vital tourism and livestock sectors.

Pastoralism livelihood and production system that is founded on land and natural resources, livestock herds and traditional governance remains the key and viable economic occupation that enables the communities inhabiting arid and semi-arid lands to utilize the available resources and cope better with climate variability.

The Pastoralist way of life has been in existence for many centuries and has sustained the constituency of pastoralist community. Pastoralist communities live in a vast area of land and the nature of the area has mostly given them resilience for many years.

Pastoralism is very important in terms of economy, social, and environment of pastoralists and nations. Pastoralists' livestock contribute highly to the local, national and regional economies through internal trade and exports of live animals, quality meat/carcasses, milk and milk products, skins, hides, fiber, hooves, horns, leather and bones. They form the primary source of livelihoods and incomes through marketing of animals and animal products to the local markets. Further, pastoralist livestock serve as the source of protein foods – meat, milk and milk products for urban dwellers. Pastoralists' herds generate employment both for the pastoralists and others along the value chain and also



contribute to the establishment of public institutions that serve them thereby creating employment opportunities for the nations.

Pastoralists have indigenous knowledge and ecosystem know-how to protect and preserve nature. They also use rangelands, mountains and water points in a traditionally efficient and sustainable way. Pastoralism co-exists harmoniously with the fauna and flora of their areas thereby providing most resilient alternative system to cope with the vagaries of climate change.

Socially, pastoralism is a comprehensive way of life that has laws, rules, norms, values and practices that have governed them for centuries and ensured their survival. Furthermore, it is still a system that is governing the rural communities at large in the region. Livestock plays an essential role in social safety nets, dowry, compensation, social gatherings and rituals, as draught power, sources of manure/dung used as fertilizer; as a source of energy for households, for plastering houses, and for sale to generate finances for defraying fees/bills and other expenses. Through the gifts, exchanges, reciprocity and solidarity systems; livestock are enabling pastoralists to maintain and strengthen social and family relations. Pastoralists are keeping indigenous breeds that are highly adapted to the local environment and resilient to climate change effects.

In terms of its contribution to the development of rural areas in the region, pastoralism and livestock development is important in market development, which has a multiplier economic effect; help for the establishment of livestock related private businesses such as meat and dairy industries; they are sources of revenue for the nations through tax collection; infrastructural development like roads; help in the proliferation of small businesses that generate diversified and additional incomes for the pastoralists; contribute to the empowerment of women –through sale of milk, and small ruminant trade; the system provides a flexible and adaptable livelihoods means against climate change shocks; the mobility practice avoids soil, water and environmental degradation and also controls pests by rotating settlement and grazing areas.

However, pastoralist livelihood and way of life is increasingly being threatened by diverse challenges like climate change, conflict, multi-national investment industries, mega infrastructural projects, encroachment, exclusion of women in major decision making and unfavorable government policy and frameworks in their ancestral lands.

**In reference to the above we recommend to IFAD the following:**

### **1. Priority areas for investments in pastoralism and recommendations for partnership with IFAD**

#### **• Range Management**

- Knowledge management – dissemination of information to pastoralist communities (documentation of successful case studies, lessons learned and research)
- Promotion of indigenous breeds and plants
- Promotion of alternative sources of fuel, including use of biogas and invasive plants
- Support increased pastoralist productivity through sound rangeland management practices
- Improve co-management between traditional systems and governance and public investments in the rangelands
- Land tenure security, reclamation and access rights
- Control of invasive plants
- Support mapping of grazing land and water point using GIS

#### **• Capacity building**

- Support women IGAs (micro finance, curios, animals products, bead jewelry etc)
- Gender mainstreaming through inclusion of women across pastoralist organizations and CSOs networks
- Business management and linkages to financial institutions
- Support local private sectors and create linkages to available markets
- Strengthen and support pastoralist associations and customary institutions
- To policy makers and government officials on pastoral dynamic systems
- Training on fodder production, value addition (preservation of meat, dairy products, etc)

- Support of community radio stations in pastoralist areas for easier communication, awareness raising and dissemination of information

- **Pastoralist infrastructure**

- Support opening up of grazing areas and water points to reduce conflicts and increase access to limited resources among pastoralists.
- Support water, sanitation and hygiene at the community level, including slaughter houses, reconstruction of water points, coolers for milk, etc.
- Improve rural road networks and accessibility
- Support access to renewable energy sources and electricity
- IFAD should prioritize investments in cross border livestock marketing infrastructure.

- **Education**

- Support the introduction of pastoralism curricula in learning institutions
- Promote and support girl and boy children education ( boarding facilities, mobile education, educational materials... etc)
- Promotion of both formal and informal education through support of teachers and mobile kits
- Support vocational trainings and linkages with labor markets (start-up capital, internships, business incubation centers etc)

- **Institutional building**

- Strengthen pastoralist organizations, associations, CSO networks at local, national, regional and global level (coordination, exchange and exposure visits. etc)
- Support training in resource mobilization, lobbying, advocacy and governance for the local pastoralist organizations, associations and CSOs
- Promote gender mainstreaming through inclusion of women in pastoralist organizations, associations and CSOs networks
- Support the development of a coordination system for pastoralists and livestock herders for Southern Africa region.
- Support country and regional secretariats for pastoralist organizations, associations , and CSOs network

- **Commercialization**

- Support value addition for pastoralist products (hides and skins, milk, meat, artifacts etc)
- Support access to credit facilities especially for local women and youth to engage in IGAs
- Increase access to markets (rural roads, market infrastructures, markets information, linkages with traders, abattoirs, marketing groups, fattening grounds)
- Support the development of inclusive value chain/market information systems and coordination between market actors
- Support improvement of quality and safety of animal products and compliance with international standards

- **Animal Health**

- Support animal health with a keen focus on TADs (trans-boundary animal diseases) through continuous surveillance, diagnosis, treatment and vaccination
- Support the creation of regional disease free zones as a quality assurance measure
- Support capacity building of animal health service providers and systems (CAHWs, Para-vet etc)
- Support trans-boundary coordination for animal health service delivery and surveillance
- Support rural animal health facilities (drug shops, extension services, linkages with suppliers, etc)
- Support livestock drugs quality control (regulatory frameworks, drugs storage, etc)

- **Risk Management**

- Support community trainings and planning on disaster risk management
- Strengthen EWS
- Provide contingency funds
- Support capacity building of Risk Reduction Institutions
- Provide appropriate support to gender specific needs during conflict (girls/women, sanitary pads, separate toilets, etc)



- **Youth**

- Support to reformed warriors in pastoralist communities through alternative livelihood options (income generating activities)
- Promote attitude change behavior (sports, cultural events, artistic ventures etc)
- Support vocational and business skills development
- Support youth inclusion and involvement in pastoralist development activities
- Support youth organizations' innovative activities and projects

- **Women**

- Support Pastoralist women led institutions to champion for women specific issues within the pastoralist communities
- Support pastoralist women to access resources (micro-finance and credit)
- Strengthen the capacity building of pastoralist women to take leadership roles
- Support pastoralist women organizations and activities (savings and loans, fodder production, homestead gardens... etc)

## **2. Priority areas for policy dialogue, advocacy and other policy initiatives in support of pastoralist organizations and livestock herders.**

In order to ensure the survival and sustainability of pastoralism, we make the following recommendations to IFAD and member states within the Eastern and Southern African Regions;

IFAD shall consider supporting participatory and inclusive implementation of continental and regional policy frameworks on pastoralism i.e. African Union Policy Framework for Pastoralism in Africa; and support research initiatives on the contribution of pastoralism to Eastern and Southern Africa economies; for evidence based advocacy for pastoralist organisations and institutions, CSOs and policy makers to justify their call for more investments in the sector through the following key actors;

**Uganda:** Greater North Parliamentary Forum, Coalition of Pastoralist Civil Society Organizations (COPACSO), Ministry of Agriculture, Animal Industry and Fisheries and parliamentary committees.

**Tanzania:** Parliamentary Committees, Parliamentary Working Groups, Ministry of Agriculture, Livestock, and Fisheries, Pastoralists Indigenous Non-Governmental Organizations (PINGO's) Forum s and Tanzania Natural Resources Forum (TNRf).

**Ethiopia:** Pastoralist Standing Committee of Parliament, Federal Affairs and Pastoralist Ministry, Ministry of livestock and Fishery Development and Pastoralist Forum Ethiopia.

**South Sudan:** Ministry of Agriculture and Animal Resources at National and State levels, Pastoralist Organisations, Institutions, Civil Society Organizations Networks, Sudan Council of Churches, Council of Ministers at state and national levels.

**Kenya:** Ministry of Agriculture-department of livestock, Ministry of devolution, County Ministries of Pastoralism and livestock production, Pastoralist Parliamentary Group, Senate Committee, Council of Governors, Parliamentary Committees, Constitutional Implementation Committee, Pastoralist Civil Society Organizations Networks, Pastoralist Leaders Forum, ASF, National Drought Management Authority,

**Somalia:** Ministries of Pastoralism and Environment (Somaliland, Puntland, Somalia), Pastoralist Parliamentary Committees, Pastoralist Organisations, Institutions, Civil Society Organizations networks, City Councils, IGAD Sheikh Veterinary School

**Namibia:** Ministry of Agriculture, Water and Forestry, Ministry of Land Reform, Ministry of Environment and Tourism, National Planning Commission, Livestock Keepers Organisations, Institutions, Civil Society Organizations networks

**South Africa:** Small scale farmers organizations, Non Governmental Organizations, other community based organizations and semi state organizations, state organizations (Agriculture, Rural Development... etc)

**Regional and Continental Organisations:** East Africa Community, Inter Governmental Authority for Development (IGAD), Southern Africa Development Community (SADC),



African Union, Africa Development Bank (AfDB), Common Market for Eastern and Southern Africa (COMESA).

**Further, we recommend that IFAD prioritize the following;**

- Support participatory national and regional processes for formulation of livestock marketing initiatives to regulate and facilitate national, cross border and international marketing of livestock and livestock products.
- Support the formulation and domestication of pastoralist related policies that support trans-boundary livestock mobility, disease surveillance and control.
- Support exchange and learning programs between policy makers, government ministries, pastoralist organizations, institutions, CSOs and communities as a basis to inform policy making and regulatory frameworks to support, safeguard and promote pastoralists livelihoods and production systems. Facilitate participatory and gender inclusive rangeland management and climate change policies and frameworks making processes at regional, national, and community levels.
- Support programmes that enhance disaster risk assessment and risk reduction planning, resilience building and climate change adaptation among pastoralist communities
- Support pastoralist communal land tenure security and natural resource governance in line with IFAD's policy framework on land tenure.
- Pay more to supporting participatory, inclusive and effective land use plans in order to protect communal land, secure livestock resources and stock routes.
- Facilitate policies tailor made in support of education and training for pastoralist areas with special focus on mobile communities.
- Support the involvement of pastoralists in policy formulation and implementation

**3. Inclusion of pastoralist organizations and livestock herders at different stages of IFAD business model (country strategy development project design, projects implementation and supervision) and overall IFAD programme in the following ways;**

**• Global level:**

- IFAD to support the inclusion of pastoralist organizations in the Farmers Forum (FAFO) steering committee
- IFAD to develop a policy for supporting pastoralism programming (as also recommended by the Evaluation Synthesis by IFAD and Food and Agriculture Organization (FAO) Evaluation Offices)
- IFAD to support the institutionalization of pastoralists by having a technical advisor at IFAD headquarters.
- IFAD to oversee that the designed COSOPs are informed by evidence of social, economic, cultural and livelihood assessment to minimize negative impacts on pastoralist livelihoods and maximize support to pastoralist communities
- IFAD shall consider the outcomes of the IFAD/VSF consultation process challenges, gaps and recommendations to inform future programming decisions and funding priorities.

**• Regional Level:**

- IFAD to support institutionalization of Regional and Country Pastoralist Organizations networks, Secretariats to promote participation of pastoralists and accountability of its funded programmes and projects.
- IFAD to support the formulation and implementation of pastoralist related Regional and National policies e.g. the Africa Union Policy Framework for Pastoralism in Africa and national pastoralist policies and implementation strategies

• **National Levels:**

- IFAD to Support feasibility studies to identify emerging opportunities for Country programming in pastoralist areas e.g. County governments/regions/provinces.
- IFAD shall ensure that pastoralist organizations are represented in the Country Programme Management Teams to enhance their participation in the formulation of Country Operational Strategy programmes and the process of designing, planning, implementation and supervision of country programmes and projects.
- IFAD to recognize the role of Pastoralist organizations in providing feedback on the impacts of country programmes and projects implemented in pastoralist areas during projects implementation phase and programme/projects evaluations.
- IFAD supported projects must be informed by Free Prior and Informed Consent (FPIC) by pastoralist communities within proposed project areas to avoid projects that do not guarantee pastoralist safeguards – forced displacements, evictions, land use rights).
- IFAD shall increase its financial support to pastoralist organizations and institutional building of pastoralist women organizations.
- IFAD to strengthen cross border livestock mobility, services delivery programmes by supporting inter-country COSOPs and programme harmonization during designing and implementation e.g. livestock vaccinations, mapping of migratory and marketing routes, water and pasture, conflict resolution and peace building.

We, the pastoralist organisations of Eastern and Southern Africa meeting at Lukenya (Kenya) between the 22nd and 23rd of January 2016, are committed to pursue pastoralism as way of life and its contribution to environmental, social and economic wellbeing of our communities and respective states and to respond to current and emerging threats. We further commit to support the efforts of IFAD by acting as it's' partners in realizing the objectives and intent of this statement.

**The Organizations present:**

**Ethiopia**

Labata Fantalle Organization (LFO)  
 Ogaden Welfare and Development Association (OWDA)  
 Oromiya Pastoralist Association (OPA)  
 Pastoralist Forum Ethiopia (PARF)

**Kenya**

Mainyoto Pastoralist Integrated Development Organization (MPIDO)  
 Marsabit Indigenous NGOs Network (MIO-NET)  
 Pastoralist Development Network of Kenya (PDNK)  
 Pastoralist Women Health Education (PWHE)  
 Samburu Women Trust (SWT)

**Namibia**

Conservation Agriculture Namibia (CAN)  
 Integrated Rural Development and Nature Conservation (IDDNC)

**Somalia**

Pastoral and Environmental Network in the Horn of Africa (PENHA) Somalia

**South Africa**

Kamiesberg Heritage Foundation (KHF)

**South Sudan**

Catholic Diocese of Torit  
 South Sudan Women Empowerment Development Initiative (SSWEDI)  
 Losolia Rehabilitation & Development Association (LRDA)

**Tanzania**

Association for Law and Advocacy for Pastoralists (ALAPA)  
 Kimokouwa Pastoralists Community (KPC)  
 Pastoralist Indigenous NGOs Forum (PINGOs)  
 Tanzania Natural Resources Forum (TNRF)

**Uganda**

Coalition of Pastoralist Civil Society Organizations (COPACSO)  
 Dodoth Agro-Pastoralist Development Organization (DADO)  
 Greater North Parliamentary Forum (GNPF)  
 Pastoral and Environmental Network in the Horn of Africa (PENHA) Uganda



# ANNEX • 4

## North Africa and West Asia Consultation

### Recommendations for the Farmers Forum on how to improve IFAD contributions to pastoralism development in North Africa and West Asia.

Results of the regional workshop held in Hammamet, Tunisia  
14-16 January 2016

#### 1. Importance of pastoralism and livestock keeping in the Region of North Africa West Asia (NAWA)

NAWA Region is characterized by great extensions of drylands (Sahara and other semi-desert areas) available for nomadic and semi nomadic pastoral systems.

At the same time the region is heavily beset and impacted by a number of global processes and trends that are particular acute in pastoral area:

- a) **Climate change** with desertification trends, growing rainfall unpredictability and occurrence, of climatic extreme events with increasing frequency.
- b) **Population growth** with high demographic growth rates (with youth under 30 representing about 70% of population in most countries) and changes in consumption patterns
- c) **Conflict and insecurity** represent as well a characterizing feature in most rangeland areas in the region and pose important challenges to pastoral resource management. On top of that the presence of weapons (Sudan) and landmines (Western Sahara) as well as that of areas under military control pose further degrees of livelihood risk in some areas.
- d) **Migration:** the regions are also evidently exposed to exchanges and influence from neighboring Europe. Trade integration and cultural contamination are the most evident indications of such proximity, as agricultural patterns in some countries have been reshaped



to serve EU markets and migration opportunity and flows to the northern European flank have characterised recent generations.

Pastoral communities – including Bedouins, Kurds, Berbers, Touareg and Saharawi – constitute important portions of the indigenous population of the region, though they often end up being minority groups at national levels. This is the result of the various colonial experiences that have reorganized frontiers and territories without considering communities living there.

In this context pastoralism and livestock keeping constitute the most feasible and sustainable opportunity to provide for **employment, food and income** in large portions of the region, thus **enabling rangelands to be inhabited and productive**. Recent experience show in fact that abandoning these vast and remote territories opens the way to trafficking, banditry and insurgency movements. Pastoralism represents as well a key asset to take care of local natural resources, while ensuring livelihood opportunities for younger generations, who would otherwise migrate to urban setting or foreign countries.

1. There is still enough land that can be utilised in a proper way in the region; while lands under States control does not preserve natural resources; livelihoods and traditions of pastoralist are adapted to environmental management and can cope with climatic and ecological changes;
2. The increasing of population has important consequences on the balance between the food demands in countries which are traditionally food importers. Pastoralists and livestock breeders can help meeting the food demand of local populations, provided they receive adequate support. The proximity to Europe and its culture means that the main markets are increasingly sensitive to the quality of the food (local, healthy, organic) and consumers are willing to pay a higher price for quality products. In this sense, local producers could benefit from a growing niche market, ensuring a fair income for producers. Moreover, in some countries in the region, legislation exist encouraging consumption of local products.
3. There is a real possibility to activate new and innovative forms of alternative income; enhancing eco-tourism, artisan handicrafts and/or fair-trade in pastoral areas hold the potentials to create jobs and increase the income for local communities, so to help halting the emigration of youth members. Pilot experiences in some areas have been experimented accordingly with good results. Increasing the income will also avoid deforestation and cutting of bushes for heating, cooking and making fences. In this sense, the availability of new technologies is a real opportunity to promote development and reduce marginalization.
4. Research and valorization of customs and traditions of pastoral communities would give additional value to practices that are being lost, while they have enable living in extreme environments through time (ie. local seed bank). In addition, these research actions, associated with an enhancement of education and health services in marginal areas would have the indirect effect of increasing the awareness of young people on the importance of their culture, by limiting the magnet effect that European culture has on new generations bringing them to emigrate. Pastoralists themselves have all the knowledge to address emergency; they need to be helped to share this knowledge.
5. Animal health is also a critical issue as it may decrease herd productivity as well as it affects the value and price of final products). The strengthening of a proximity animal health service would provide a good way of preventing the spread of infectious diseases at the gates of Europe.
6. Security: the pastoral communities are the first to live with extreme concern on the consequences of the instability in the region., as they feel threatened and part of the land used for grazing becomes unaccessible. At the same time the marginalization of pastoral communities provides a breeding ground for the recruitment (especially among young people) for illegal and/or insurgent activities. Investments in improving the quality of life of pastoral communities and strengthen their ties with governments and international agencies would help mitigating this phenomenon.

## **2. Priority areas for investments in pastoralism and livestock breeding, and recommendations for the partnership with IFAD**

1. Investing in water resources (ie. deeper wells, maintenance of water pumps, ... ) is a primary concern in areas where this has always been a limiting factor – and where increased human pressure as well as climate change trends have been posing further constraining to water availability and access.
2. Land tenure and access in most pastoral regions is made difficult by different overlapping systems: customary, Islamic (sharia), private, governmental, military areas (inaccessible); as well pastoral lands are encroached by a number of non-pastoral interests and actors (oil drilling, mining, urbanization, agricultural expansion, trafficking). These represent main reasons for tensions and conflicts. The legislative framework around land should be clarified and enforced accordingly, improvements should be elaborated with the involvement of pastoral communities.
3. Microcredit systems could provide important benefits in developing businesses, and provide opportunities for employment and income-generation. Training for entrepreneurial, processing and marketing skills is needed (also to diversify pastoral production and livelihoods). Such interventions are critical to retain young people on rangelands, where outmigration is intense and generational turnover difficult. Such systems are needed in that banking systems are ineffective/unreliable in pastoral areas; they though should be adequate and tailored to the specificities of the pastoral setting, and must address community organizations of vulnerable categories (women and youth), not individuals.
4. Public infrastructure and facilities for community life is also a primary concern, as access to basic services and response to primary needs is critical to foster the pastoral economy, especially in terms of transportation, water, energy and facilities for livestock productivity and marketing. Investing in livestock health is a priority, but interesting experiences also exist in terms of small energy plants, mobile schools and clinics.
5. In that same respect investments should also address supporting communities' organizations towards enhancing more and better services delivery to pastoral producers. Formulation and creation of new pastoral institutions based on existing social structures so to enhance their capacities.
6. Enhancing capacities of the natural resource base, as rangelands productivity should be protected and improved. Sustainable land management practices on rangelands, forests, drylands, highlands should be strengthened accordingly.
7. Livestock productivity and market potentials should also be improved, through adequate veterinary services, vaccinations (mobile services for nomads), and opportunities for processing, transportation and products diversification.

## **3. Priority areas for IFAD to facilitate policy dialogue, advocacy and other policy initiatives in support of pastoralists' and livestock keepers' organizations.**

1. IFAD should assure that policy dialogue is as much inclusive as possible, by involving all stakeholders dealing with pastoralism. A special attention should be paid to include vulnerable groups (especially women and youth) and minorities, who should take part on the definition of policies and decisions that have impact on their professional, social and political livelihood.
2. Promote participation of representatives of indigenous people at policy making level (Parliament/unions/governmental bodies). Support decentralisation and the establishment of native administrations.
3. Local CSOs need to be strengthened and empowered, so that they can effectively represent pastoral communities and contribute to political dialogue and influence policymakers through advocacy activities to influence the design of policies and legislations/laws.





4. Local and indigenous knowledge and capacities should be protected and valorized, not only through virtual Hubs, but also through more practical and tangible platforms (pastoral knowledge centers, ...) - especially concerning animal production, agriculture and management of range resources. More in general policy dialogue should acknowledge and respect the rights of indigenous people over: land, territory/customary laws/culture (language, social, norms and traditions) - including the recognition of indigenous and community conserved areas (ICCAs).
5. The main priorities in terms of policy dialogue should be centered on:
  - social components/aspects of pastoral livelihood, focusing especially on tailored basic services (education, health and adult literacy);
  - good governance over land and natural resources; protecting the local economy and supporting small producers, by empowering them and building their capacities;
  - income differentiation, for instance through vocational trainings to improve handicrafts skills for the benefit of marginalized communities.
6. Local CSOs need to be strengthened and empowered, so that they can effectively represent pastoral communities and contribute to political dialogue.
7. Need to make an alliance between all the donors, institutions and organisations working on pastoralism in the same areas, and coordinate and join forces.

**4. How pastoralists' and livestock keepers' organisations can be associated at the different stages of IFAD business model – country strategy development, project design, projects implementation and supervision, and overall IFAD programme implementation (Partnership engagement with IFAD)**

1. Negotiate with Governments the involvement of pastoralists' associations in the preparation of national development strategies and IFAD's country strategies and strengthen networking, communication, access to information by communities accordingly.
2. Carry out participatory assessment of the needs of pastoralists, with the support of national experts before deciding what type of investments. Participatory action research could also help building the ability to analyse the challenges, define the vision, mission and objectives, and then draw a strategy, action plan for local production system, with a "do not harm" approach, i.e. extraction of minerals to be avoided.
3. Ensure that support to pastoralist organizations and civil society organizations is channelled as directly as possible, through MoU agreed with the Government.
4. Whenever relevant, rely on pastoralist organizations in the implementation of IFAD country programs, during their implementation, review and evaluation.

5. Contribute to protect pastoralist culture, customs and traditions and support its transfer to the young generations.
6. Identify best practices in enhancing resilience to climate change related issues like drought and share them among pastoralist communities.
7. Promote the use of ICT tools for communication purposes and access to information which is relevant to pastoralist communities (i.e. extension, markets).
8. Enhance capacities of pastoralist communities and other stakeholders (CSO, NGO, Academic institutions, LCs (local communities), IPs (indigenous people), Government, Private sector) in policy engagement towards more effective policy dialogue.
9. Give a voice to pastoralist communities in the context of FAFO and other relevant international fora.

*Hammamet, 16<sup>th</sup> January 2016*

### **Organisations present:**

#### **Regional:**

Arab Pastoralist Communities Network

#### **Egypt:**

BEDUINE Women's Economic empowerment

Alrames Association for Pastures

#### **Iran:**

Cenesta

Chief, Council of Elders, Bakhtiari Tribal Confederacy

Go Nomad

#### **Jordan:**

Dana and Qadisiyah community cooperative

Alnawatif cooperative

Altafila Women Forum

Department of pastures, ministry of Agriculture

#### **Mauritania:**

Coordinateur Regional de Federation des Eleveurs du Tiris Zemmour

Organisation de développement des zones arides et semi-arides en Mauritanie (ODZASAM)

#### **Morocco:**

Association Nationale Ovine et Caprine (ANOC)

Association Pastorale Ait Ben Yacoub (APABY)

#### **Saudi Arabia:**

Madinah Cooperative

Riyad Livestock C

#### **Sudan:**

Butana Integrated Rural Development Project

Almassar

#### **Tunisia:**

Projet PRODESUD

Association des camelins

GDA Beni mhira

#### **Algeria:**

Saharawi pastoralist

#### **Turkey:**

TUDKIYEB

Ankara University

#### **International:**

VSF

IFAD

FAO

# ANNEX • 5

## Recommandations pour le FIDA concernant le pastoralisme en Afrique de l'Ouest et du Centre

**Issues de la rencontre régionale sur «La construction d'un environnement propice au développement de l'élevage du pastoralisme»**

**Bamako, 7 – 9 janvier 2016**



### 1. Importance de l'élevage et du pastoralisme : contexte <sup>1)</sup>

- L'élevage joue un rôle prépondérant dans les économies sahéliennes. Il contribue de manière soutenue à la sécurité alimentaire et nutritionnelle des populations sahéliennes, ainsi qu'à la lutte contre la pauvreté. En effet, le bétail est un secteur important représentant jusqu'à 25% du PNB des pays comme le Burkina Faso, le Mali, la Mauritanie, le Niger et le Tchad. Il emploie environ 80% de la population, fournit de la viande et d'autres produits dérivés pour la consommation et assure la traction animale dans l'agriculture.
- Les filières élevages génèrent quelques dizaines de milliards de FCFA de valeur ajoutée pour les pays côtiers (Togo, Bénin, Côte d'Ivoire) jusqu'à 200 milliards de FCFA pour le Mali.
- L'effectif du cheptel est très important, le nombre de têtes de bovins est passé de 31 millions en 1980 à 45 millions environ en 2005, soit une progression de 25 % contre 65,6 % pour les ovins et caprins dont l'effectif est passé de 63 millions en 1980 à 119 millions en 2006. (R. Blein et al. 2008).
- Les systèmes d'élevage sont extensifs et caractérisés par la mobilité des troupeaux (transhumance courte ou longue) permettant un ajustement par rapport à la disponibilité fourragère. L'alimentation des animaux est fondée sur la valorisation des ressources naturelles (herbages et arbustes) dans les zones arides et semi arides. Les déplacements transfrontaliers pour les points d'eau, les cures salées au Niger, au Burkina, en Mauritanie et au Mali sont bien connus dans ce cadre. Ainsi le pastoralisme et l'élevage extensif contribuent fortement aussi à l'intégration régionale des politiques, des systèmes productifs et des marchés, dans un contexte où les pays du Sahel ont

1) Ceci est le résultat des travaux de groupes pendant l'atelier à Bamako. Idéalement ces arguments seront complétés par des données chiffrées et des statistiques qui illustrent l'importance du pastoralisme en Afrique de l'Ouest et du centre.



une production excédentaire de produits d'origine animale, et les pays côtiers en sont déficitaires.

- En dépit de cette importance, les populations pastorales ont insuffisamment bénéficié des politiques nationales et régionales de développement et de financements autant publics que par l'aide au développement alors que leurs besoins en infrastructures, en services adaptés (appui conseil, services vétérinaires ...), en services de base adaptés (santé, éducation, eau potable, ...) et en sécurité sont très loin d'être couverts.

## **2. Domaines prioritaires d'investissement pour le développement de l'élevage et du pastoralisme<sup>1)</sup>**

- Soutenir la réalisation et une gestion durable et inclusive des aménagements et équipements/infrastructures pastorales sur base des plans négociés localement. Il s'agit entre autres d'ouvrages hydraulique pastorale, des espaces et couloirs de passage, des aires de repos, etc. Une attention particulière devra être accordée aux infrastructures transfrontalières entre pays et entre régions.
- Renforcer l'accès des populations d'éleveurs et de pasteurs aux services sociaux de base adaptés à la mobilité pastorale (santé humaine et animale, éducation, eau potable et formation entre autre sur la citoyenneté et droits et devoirs des pasteurs) et en particulier en lien avec les femmes et les jeunes.
- Appuyer les investissements structurants pour développer des filières porteuses de produits d'origine animale et de bétail sur pied, afin de tirer pleinement profit des opportunités commerciales. Il s'agit entre autres du soutien au développement de la coopération et de l'intégration régionale à travers le suivi des mouvements transfrontaliers du bétail ; mais aussi de la promotion des chaînes de valeur et de la diversification des revenus des éleveurs et des pasteurs.
- Soutenir les actions de sécurisation foncière et de mobilité pastorale (y compris la sécurisation des éleveurs et de leurs bétails dans un sens plus large) par la promotion des accords sociaux intercommunautaires, ainsi que l'élaboration et la mise en œuvre des schémas d'aménagements pastoraux durables au niveau local, national et transfrontalier. Dans ce cadre il est primordial de prendre en compte la participation des femmes et des jeunes à travers des espaces de concertation qui leur sont dédiés.

## **3. Le rôle du FIDA dans la facilitation du dialogue politique entre les parties prenantes**

- Investir dans le renforcement institutionnel des organisations pastorales et leurs cadres de concertation afin de renforcer leur représentativité et redevabilité (y compris les femmes et les jeunes) et les liens entre organisations paysannes à la base et les états et institutions régionales et internationales pour une meilleure prise en compte des besoins des éleveurs/pasteurs au sein des instances décisionnelles ;
- Accompanyer les initiatives de production des données économiques (revenus et ciblage des ménages pastoraux, seuils de viabilités des ménages pastoraux, etc.), et de statistiques fiables sur l'élevage pour une meilleure compréhension des exploitations familiales pastorales, et aider à des réflexions prospectives pour aider à la prise de décisions sur les nouvelles dynamiques sociales sur la mobilité ;
- Soutenir les initiatives de capitalisation de connaissances endogènes fondamentales pour la conservation du patrimoine productif, des valeurs et du savoir-faire pastoral.

## **4. De la participation des OP à la mise en œuvre des programmes FIDA dans les pays.**

- Allouer des ressources financières conséquentes au développement de l'élevage et du pastoralisme;
- Associer les Organisations Paysannes aux mécanismes de formulation, de pilotage, de

2) Les besoins en investissement s'inscrivent dans une logique de consolider la complémentarité entre les pays du Sahel et les pays côtiers

- mise en œuvre, et de suivi et évaluation des projets financés par le FIDA (p.ex. à travers la constitution de comités de veille)
- Assurer une meilleure information des OP d'éleveurs et pasteurs sur les processus d'élaboration des COSOP en vue de leur implication effective aux instances de gouvernance nationale des programmes pays et aux instances décisionnelles du FIDA ;
- Assurer la maîtrise d'ouvrage délégué lié aux réalisations des infrastructures et ouvrages pastoraux pour mieux servir les acteurs à la base.

## **DÉCLARATION** **des participants à l'atelier régional sur « la construction d'un** **environnement propice au développement durable du pastoralisme** **en Afrique de l'Ouest et du Centre »**

Nous, réseaux régionaux des acteurs professionnels (éleveurs et pasteurs de l'Afrique de l'Ouest et du Centre), représentants des organisations de la société civile pastorale, des femmes et du secteur privé en tant que bénéficiaires et principaux partenaires de l'action publique;

Réunis à l'occasion de l'atelier régional sur « la construction d'un environnement propice au développement durable du pastoralisme en Afrique de l'Ouest et du Centre », tenu à Bamako, République du Mali, du 7 au 9 Janvier 2016, dans la continuité des engagements de l'Union africaine (cadre stratégique de 2011), des Colloques de Ndjamena et de Nouakchott (2013), des organisations pastorales dans le cadre du processus ECOWAP+10 ;

Notant avec préoccupation la faible prise en compte dont l'élevage en général et l'élevage pastoral en particulier sont l'objet dans les politiques publiques en Afrique de l'Ouest et du Centre ;

Préoccupés par les défis majeurs auxquels l'élevage et le pastoralisme sont confrontés, notamment (i) l'absence d'une vision commune entre pays sahéliens entre eux et entre eux et pays côtiers ainsi qu'entre OP et autres acteurs sur les stratégies régionales de développement à promouvoir, (ii) la faible connaissance des systèmes pastoraux, d'une part et de l'interconnexion des dispositifs d'information des acteurs, d'autre part, (iii) la mise en œuvre des actions de développement de l'élevage et du pastoralisme dans le contexte sécuritaire actuel ;

Préoccupés par les enjeux de l'élevage et du pastoralisme en Afrique de l'Ouest et du Centre, notamment : (i) la sécurisation du foncier pastoral, (ii) l'accès aux facteurs de production (dont le financement) et aux services de base adaptés (aliment bétail, santé animale et humaine, éducation), (iii) la bonne gouvernance des espaces et infrastructures/ aménagements pastoraux, (iv) l'accès aux marchés et modernisation des chaînes de valeur, (v) la sauvegarde et l'amélioration du pouvoir économique des femmes et des jeunes des ménages pastoraux, (vi) le renforcement de la résilience des populations pastorales face au changement climatique et à la forte croissance démographique, (vii) facilitation de la mobilité du cheptel et de la transhumance transfrontalière ;

Reconnaissant le rôle moteur de l'élevage et de l'élevage pastoral dans: (i) la garantie de la sécurité et la souveraineté alimentaires des populations et des Etats de l'Afrique de l'Ouest et du Centre, dans la lutte contre la pauvreté et l'exode rural, (ii) l'intégration régionale des politiques, des marchés et des systèmes de production, (iii) la préservation de la biodiversité et l'adaptation à la variabilité et au changement climatiques (notons comme effets une baisse du niveau des nappes, des sécheresses récurrentes, etc.) ainsi que son rôle dans la gestion durable des ressources naturelles, (iv) la valorisation des espaces impropres à la production agricole et (v) comme vecteur de croissance, de sécurité, de paix, de stabilité et de création d'emploi ;

Reconnaissant les efforts que déploient depuis quelques années les organisations



régionales de l'Afrique de l'Ouest et du Centre, (UEMOA, CEDEAO, CILSS, CEMAC, CEEAC, CEBEVIRHA, CORAF/WECARD), l'Union Africaine, ainsi que d'autres institutions internationales et des partenaires techniques et financiers ;

Forts du large consensus, national, régional et international qui existe actuellement sur la nécessité de l'intensification de l'action publique en faveur de l'élevage en général et des sociétés pastorales en particulier.

#### **Par la présente, NOUS**

Réaffirmons notre engagement à contribuer à l'avènement d'un environnement propice au développement durable de l'élevage et du pastoralisme en Afrique de l'Ouest et du Centre ;

Convenons, de l'institutionnalisation d'un espace de concertation entre les réseaux et les organisations des éleveurs et des pasteurs de l'Afrique de l'Ouest et du Centre, aux fins : (i) de la défense des intérêts des éleveurs, des pasteurs et de leur patrimoine, (ii) d'une prise en compte effective de l'élevage et du pastoralisme dans les politiques publiques tant au niveau international, régional, national, que local, (iii) d'amélioration du dialogue pour influencer les politiques publiques à tous les niveaux, mais surtout au niveau local.

Convenons de la nécessité d'engager des investissements structurants pour :

- Soutenir la réalisation et une gestion durable et inclusive des aménagements et équipements/infrastructures pastorales tels que des ouvrages d'hydraulique pastorale, des espaces et des couloirs de passage ainsi que des aires de repos sur base des plans négociés localement. Ces investissements veilleront à renforcer la gestion et la prise en charge des coûts d'entretien des installations en s'appuyant sur les expériences réussies ;
- Renforcer l'accès des populations d'éleveurs et de pasteurs aux services sociaux de base (santé humaine, éducation et formation, eau potable) et services techniques (par exemple la santé animale), par la mise en place d'un dispositif adapté à la mobilité des populations (services mobiles, notamment), en prenant en compte les besoins des communautés pastorales, notamment les femmes et les jeunes ;
- Promouvoir des filières solides, en développant les infrastructures commerciales au niveau communal, au niveau départemental et au niveau régional,
- Appuyer le développement de la coopération régionale pour le suivi des mouvements transfrontaliers du bétail ;
- Favoriser les dynamiques d'innovation technique et organisationnelle dans la collecte, la transformation et la conservation des produits laitiers au profit des femmes et des jeunes ;
- Renforcer les capacités des organisations de la société civile pastorale afin qu'elles puissent défendre les intérêts de leurs membres.
- Améliorer et sécuriser l'accès aux ressources pastorales pour les pasteurs au niveau local, national et transfrontalier (espaces de pâture, l'hydraulique, couloirs) à travers notamment la signature des accords sociaux au niveau local, national et régional



- Améliorer l'éducation et la scolarisation en milieu pastoral ;
- Renforcer la prise en compte et la participation des femmes et des jeunes dans la mise en œuvre des activités pastorales à travers des espaces de concertation spécifiques.

Invitons les Etats, les institutions de coopération technique (CILSS, CORAF/WECARD et CEBEVIRHA) et d'intégration régionales (UEMOA, CEADAE, CEMAC et CEEAC) à adopter et mettre en œuvre des politiques publiques favorables au développement de l'élevage et du pastoralisme ; à mettre en œuvre des mesures appropriées et incitatives à la promotion d'un environnement favorable au développement de l'élevage et du pastoralisme en Afrique de l'Ouest et du Centre.

Exhortons les organisations de la société civile pastorale de l'Afrique de l'Ouest et du Centre, les organisations non gouvernementales régionales et internationales à renforcer les appuis multiformes qu'elles apportent aux réseaux d'organisations d'éleveurs, de pasteurs pour : (i) promouvoir un dialogue constructif multi acteurs, (ii) le plaidoyer et le lobbying pour influencer les politiques publiques favorables y compris en bâtissant les passerelles idoines avec les organisations et autres initiatives de lobbying/plaidoyer en faveur de l'élevage et du pastoralisme d'acteurs autres qu'africains (cas notamment des acteurs européens) à travers entre autres la plateforme des connaissances pastorales de la FAO .

Invitons les partenaires techniques et financiers, dans le cadre des programmes qu'ils financent à faciliter le dialogue politique, notamment à :

- Prendre en compte dans les programmes pays et au niveau régional les priorités d'investissement ci dessus retenues ;
- Accompagner la structuration des organisations pastorales à tous les niveaux afin de renforcer leur représentativité (y compris les femmes et les jeunes) pour une meilleure prise en compte de leurs besoins au sein des instances décisionnelles ; et afin qu'ils puissent assurer le lien entre les OP à la base et les états et institutions régionales et internationales ;
- Appuyer un espace de concertations des organisations pastorales (y compris les femmes et les jeunes) comme cadre de formulation de propositions permettant d'alimenter la conception d'outils et d'instruments de politiques adaptés aux spécificités pastorales ;
- Accompagner les initiatives de recherche sur les données économiques (revenus macro-économiques (PIB), revenus des ménages pastoraux, seuils de viabilité et de ciblage des ménages pastoraux), les statistiques sur l'élevage, et des réflexions prospectives pour une meilleure compréhension des exploitations familiales pastorales les nouvelles dynamiques sociales sur la mobilité, et la génération de l'argumentaire pour déconstruire les préjugés sur l'élevage pastoral;
- Soutenir les initiatives de capitalisation et de la valorisation des connaissances endogènes fondamentales pour la conservation du patrimoine productif (don't ressources génétiques locales), des valeurs et du savoir-faire pastoral.

Appelons les délégués de la région (ROPPA, RBM, APRESS, CORET) au Forum paysan organisé par le FIDA à Rome, en février 2016, et les initiateurs de l'atelier de Bamako ( FAO, FIDA, VSFI, SNV, UK AID, Acting for Life, RBM) à soutenir , dans ce Forum et dans tous les foras internationaux qui suivront, la vision, les priorités d'investissement et les besoins d'accompagnement des éleveurs et des pasteurs définis dans la présente déclaration.

*Fait à Bamako, le 9 Janvier 2016*

# ANNEX • 6

## Statement of the Farmers' Forum Special Session with pastoralists and Livestock Breeders

**Jointly organized by IFAD and VSF International**

**Rome, 13th of February 2016**

We, the pastoralist and extensive livestock breeders representatives in the 6th global meeting of the Farmers' Forum Special Session with Pastoralists and Extensive Livestock Breeders, representing the voices of millions of people from pastoralist communities worldwide, appreciate the Farmers' Forum process and acknowledge IFAD's commitment to support the consultation that was organized in Asia, Africa and Latin America and gathered over 200 representatives from 38 countries to collect our burning issues, our needs, our demands and our proposals to improve our livelihoods.

Pastoralism is the main livelihood in many drylands and mountainous and other areas, where other forms of agricultural practices are impossible. Pastoralists contribute to efficient management, governance of rangelands and protection of natural resources. In such challenging territories pastoralism presents the best livelihood strategy to provide food, income and employment; these benefit not only pastoral communities, but also those living in farming areas, urban centres and coastal regions, who all profit from regional trade and from the value chains of pastoral products. Pastoralism also provides essential eco-system services such as carbon sequestration and biodiversity conservation.

Pastoralists rely on livestock mobility and communal land for their livelihoods. We use our traditional knowledge and land tenure systems to access rangeland, produce food and seize market opportunities. Mobility is essential for adaptability and resilience strategies of our communities to cope with climate variability and to mitigate crisis situations. Pastoralist women play a crucial and increasing role in conflict resolution, cohesiveness, peace building and strengthening the food sovereignty.

Despite the many benefits of pastoralism, our communities are facing numerous challenges that threaten our ways of life. We suffer from socio-economic, political, cultural and environmental marginalization, exclusion from political dialogue, unfair market and



trade conditions, low levels of investment resulting in limited access to primary services and basic infrastructure. We are subject to unfavourable policies that lead to dispossession of land and natural resources, induced sedentarization and displacement. Demographic pressure, climate change and environmental degradation are harming our livelihoods and increase conflict, insecurity and migration of pastoral youth. Often investments come in the name of public interest and national development but directly and indirectly they harm our livelihoods by grabbing land, water and other natural resources.

Pastoralism is more than livestock production; it is a way of life, a culture and an identity. We pastoralists are citizens and our rights, culture and customary institutions should be recognized and respected.

We call upon IFAD to recognize the uniqueness of our livelihoods that need tailored approaches and investments.

### Priority areas for investments for pastoralists and extensive livestock breeders

We call upon IFAD to directly invest in pastoralism asset development (in human development, livestock and natural resources).

Promote key infrastructures in the sector and in particular:

- Support the provision of sustainable water points in strategic locations for pastoralists and extensive livestock breeders. For instance promote renewable energies to use underground water for pasture and other activities.
- Construct, rehabilitate, maintain of rural roads, secure pastoral corridors to improve rangeland accessibility and mobility.
- Invest in infrastructures/units and innovative technologies for grass/ fodder production, livestock product processing and adding value.

Facilitate pastoralists' access to economic services for value chain development:

- Support access to inputs for livestock production: veterinary services, nutrition, advisory services, etc.
- Promote the access and marketing of pastoralist and extensive livestock breeders' products at all levels: local, national, regional and international markets.
- Promote inclusive and coordinated trans-boundary services in areas such as animal health, epidemio-surveillance, early warning system, value chain development and market information systems.

Support capacity building and institutional strengthening, especially dedicated to women and youth:

- Support vocational training and mobile learning programs for pastoralists.
- Support the development of alternative and complementary income generating activities, especially those promoting traditional knowledge and practices (artisan handicrafts, off-farm activities, eco-tourism / community-based tourism, production, processing and marketing of medicinal plants).
- Support the linkages of pastoralists and extensive livestock breeders organisation from local to international level
- Support business and management skills especially for women and youth.
- Document and promote the use of traditional/indigenous knowledge and know-how of pastoralists on plants, breeds, ethno-veterinary medicine, etc.

Support social services adapted to mobile livelihoods:

- Provide and improve access to financial services (saving, credit, insurance, etc.).
- Provide adequate and appropriate health, formal and informal education services for nomadic communities (mobile clinics, etc.).
- Promote social protection and safety net programmes.
- Support information and communication technologies such as mobile, landline phones and radio stations.

**Youth and gender:** emphasis should be given to women and young pastoralists to empower them and strengthen their access to resources, trainings and leadership within their organizations.



### Priority areas for IFAD to facilitate policy dialogue, advocacy and other policy initiatives in support of pastoralists and extensive livestock breeder organisations

During the Special Session with Pastoralists and Extensive Livestock Breeders at the Farmers' Forum 2016, we, the pastoralist and extensive livestock breeders representatives hereby make specific recommendations to IFAD regarding the priorities in policy dialogue to create an enabling environment for pastoral development.

We urge IFAD to develop a policy on pastoralism also in line with the recommendations of FAO's and IFAD's *Engagement in Pastoral Development Joint Evaluation Synthesis*. This policy is needed because pastoralism requires a particular approach, as it is not only an economic activity but also a way of life based on a rich heritage of traditional/indigenous knowledge, culture and ownership. This policy should encompass particular arrangements regarding **women** and should be gender-responsive and inclusive at all levels. Furthermore, this policy should be developed within a **broader framework of human rights**.

Through its investment projects and directly through grants, IFAD should reinforce the **institutional capacities and governance of pastoralist organisations and extensive livestock breeders** to influence policy processes at local, national and regional levels. IFAD should provide **specific support** to these institutions, organizations and networks to **better design internal data collection systems that will be used for political and advocacy processes** (e.g. data on the impact of climate change on pastoralism, on national/sectoral contribution to GDP/economy/food security, on early warning systems, etc.). IFAD should further support these organizations to **access knowledge and experiences from others** (south/south programmes) and to monitor and evaluate **public policies' implementation and adaptation status**. Therefore, IFAD should support the **independent engagement of pastoralist organisations** in policy dialogues at local, national, regional and global level through adapted legislations for pastoralists and extensive livestock breeders and **the creation and reinforcement of enabling platforms** for policy making with governments and regional institutions.

IFAD should continue to implement its policy on improving access to land and tenure security with specific attention to the security and tenure of pastoralist **communal land and the governance of natural resources**. Particular attention should be devoted to **cross border movement, mobility and conflict** in these areas. In so doing, the operational principles of **"Free Prior and Informed Consent"** should be systematically applied in all investment projects and programmes.

### Inclusion of pastoralist and extensive livestock breeder organisations at different stages of IFAD business model

Pastoralism is a core issue for IFAD and IFAD's mandate requires mainstreaming of pastoralist issues into various thematic areas. Therefore, we call upon the Steering Committee of the Farmers' Forum to respect its principle of inclusiveness as written in



the Farmers' Forum Consensus of 2005, and therefore to include WAMIP and other global and regional networks of pastoralist and extensive livestock breeders as members of the Steering Committee of the Farmers' Forum and involve these alliances in other national, regional and global policy and decision making processes. We also request IFAD to be staffed with a technical specialist on pastoralism.

We call upon IFAD to timely and systematically inform pastoralist and extensive livestock breeder organizations on the timeframe and process of the preparation of IFAD's country strategies (COSOP) and investment projects to effectively include their participation. COSOPs should be based on a participatory assessment of social, economic, cultural aspects and livelihoods of pastoralist communities.

We call upon IFAD to promote systematic gender balanced participation and representation of pastoralists and livestock breeder organizations in the activities of IFAD's Country Program Management Team and in the design, implementation, monitoring and evaluation of IFAD investment projects and programmes.

In a tripartite arrangement between IFAD, governments and pastoralists and extensive livestock breeders organisations we recommend to be part in the implementation of IFAD investment projects and programmes to strengthen pastoralism and extensive livestock breeding in harmony with nature.

We recognize that IFAD's mandate is to work in each country at the national level, but call upon it to adapt its working modality in order to tackle the cross-border dimension of pastoralists to include the trans-boundary aspects of genetic resources, security, animal diseases, trade and climate change.

This statement is the expression of the needs and priorities of pastoralist and extensive livestock breeder organizations worldwide. We acknowledge IFAD's consultation efforts to listen to our voices. We urge that our requests will be heard and will lead to actions towards sustainable pastoralism. We are fully committed to contribute and participate in the programmes of IFAD.

There are lot of myths about us, here we would like to say loudly that we are not the problem but essential part of the solution.







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