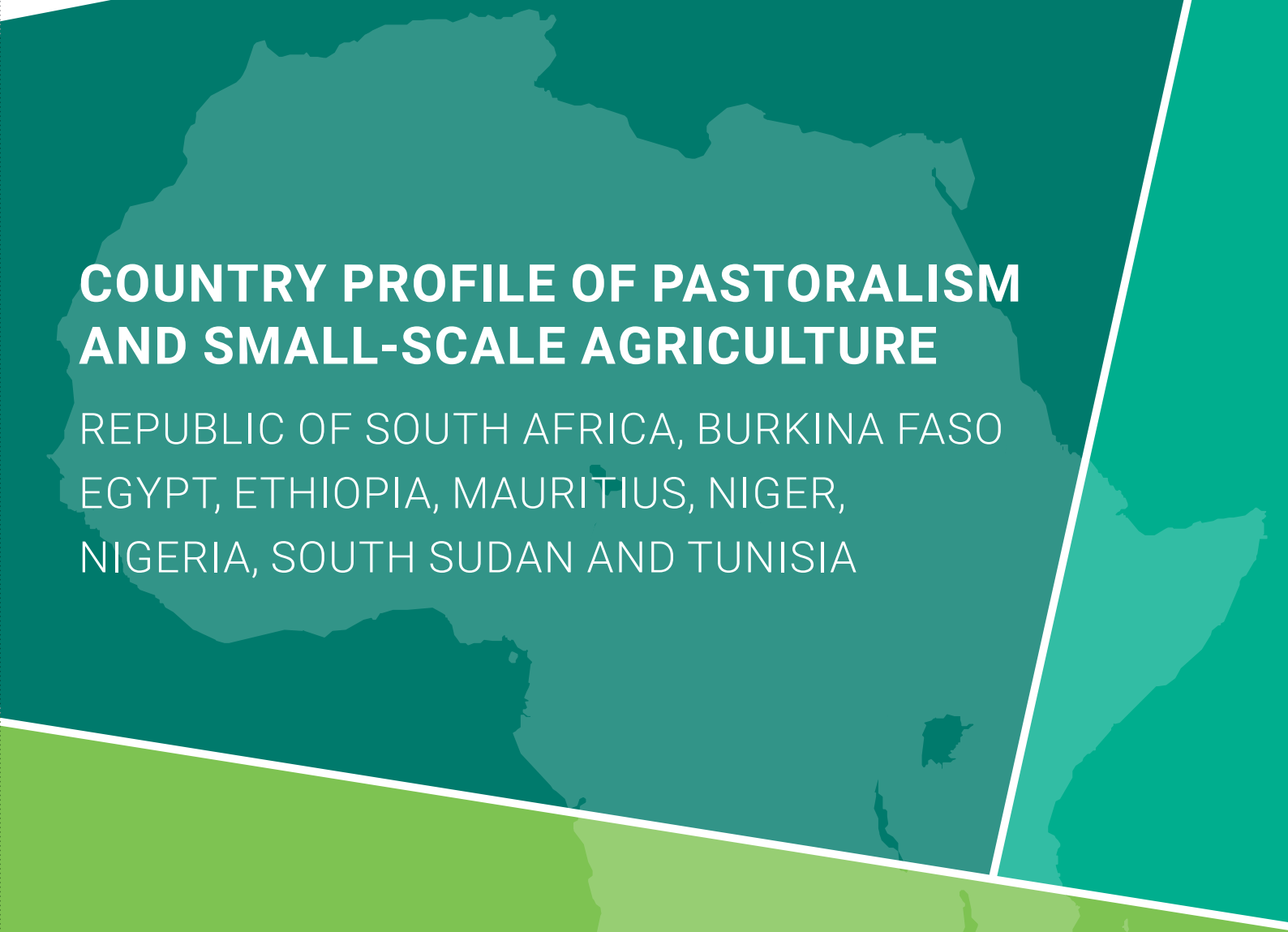
COUNTRY PROFILE OF PASTORALISM AND SMALL-SCALE AGRICULTURE

REPUBLIC OF SOUTH AFRICA, BURKINA FASO EGYPT, ETHIOPIA, MAURITIUS, NIGER, NIGERIA, SOUTH SUDAN AND TUNISIA



The Network of Excellence on Land Governance in Africa (NELGA) is a partnership of leading African universities and research institutions with proven leadership in education, training and research on land governance. Currently NELGA has more than **70 partner institutions** in over 40 countries and is organized in 6 regional and 1 technical nodes supported by a Secretariat.

General Summary

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Preamble

The Strengthening Advisory Capacities for Land Governance in Africa (SLGA) programme supports the implementation of the African Union (AU) agenda on land governance. It is part of the BMZ (Federal Ministry for Economic Co-operation and Development) special initiative entitled “Transformation of agricultural and food systems”. This programme contributes to the initiative’s focus on “promoting responsible land use and improving access to land”. The SLGA program aims to strengthen the necessary human and institutional capacities required to achieve sustainable land policies that recognize the rights of marginalized groups such as small farmers, pastoralists, youths and women across Africa. One of the SLGA program’s main areas of action is the creation and co-ordination of the Network of Excellence on Land Governance in Africa (NELGA) under the auspices of the African Land Policy Centre (ALPC). This study aims to enrich available literature and draw up a comprehensive report on certain African countries on the themes of pastoralism and small-scale agriculture. The aim is to enrich the knowledge and know-how required by the African Union’s land governance program in order to improve land governance in Africa.

Indeed, following the 2020 evaluation mission, it was noted that the program had made great strides in its capacity-building actions in the university milieu, particularly with regard to scholarships and scoping studies on capacity gaps. The information gathered helped to identify gaps and recommendations that could serve as a basis for programming in favor of breeders and small-scale farmers at national and regional levels.

To ensure a systematic approach to commitment to bridging this gap, it was necessary to have country profiles or an overview of the current landscape of small-scale agriculture and pastoralism. The overall aim of getting the country profile is to understand the current situation of countries with regard to pastoralists and small-scale farmers. The information contained in the profiles has helped to illustrate policy and implementation gaps, and thus, inform the future programming work of SLGA and GIZ’s global program on land issues.

This report synthesizes the development of small-scale agriculture and pastoralism profiles for nine countries: Burkina Faso, Egypt, Ethiopia, Mauritania, Niger, Nigeria, South Africa, South Sudan and Tunisia. It attempts to align the analysis with the guidelines and directives of the African Union Commission (AUC). It is structured in two parts with the first focusing on small-scale agriculture and the second on pastoralism. It concludes with a summary of best practices, and the main conclusions and recommendations drawn from the nine reports.

1. Small-Scale Agriculture

The definitions of small-scale agriculture used in the statistics of the countries studied are vague, and the criteria used to define it vary from one work, author or country to another. They often focus principally on the agricultural component of small-scale farming activities by households, neglecting secondary production, associated crops and their related functions. In this study, in order to have a harmonized understanding, we define small-scale agriculture in Africa to present the following main characteristic (Marzin et al., 2017): "the small size of the useful agricultural area and the small size of production structures". However, another important characteristic of small-scale agriculture is the transition trend from subsistence farming to commercial agriculture observed in recent years. This agrarian transition towards cash crops has enabled farmers to generate the cash income they need to invest, send their children to school, look after themselves, etc. But it has also been accompanied by sociotechnical upheavals with far-reaching consequences: indebtedness, increased economic vulnerability to climatic hazards, lower yields, dependence on input prices and agricultural commodity prices, allegiance to middlemen, gradual deterioration in living conditions and the environment, and even food insecurity.

1. 1. General characteristics

In countries such as Burkina Faso, Niger, South Sudan, Mauritania, Ethiopia and Nigeria, small-scale agriculture is characterized by very small farmlands and large numbers of family workers, but represents a significant share of national agricultural production and the national economy. In Niger, for example, small-scale farming contributes more than 65% to agricultural GDP (INS, 2020), while in South Sudan it accounts for just 10% (World Bank, 2020). In Ethiopia, small-scale farmers produce 94% of food crops and 98% of coffee, which is the country's leading export and contributes 40% of the GDP (Lemlem Aregu, 2022). Although this type of farming is the driving force behind the agricultural sector in these countries, it is characterized by constraints including lack of agricultural equipment, prohibitive costs in terms of information, services and markets. Thus, in Burkina Faso, 96% of small-scale farming is rainfed, with 74.5% of the area farmed by animal-drawn cultivation and only 4.8% by motorized cultivation (MAAHM, 2021). Similarly, in Mauritania, it contributes 19.3% per year to nominal GDP, employs 24.7% of the working population and comes second after trade (25.9%) and before administration and social services (22.2%) (CIRAD-CIHEAM-IAMM, 2017). While in Nigeria, small-scale agriculture provides a livelihood for over 70% of the population, accounts for 90% of agricultural produce and is also responsible for around 98% of the food consumed in households (Adetimehin et al., 2018).

Contrarily, Tunisia, Egypt and South Africa have smaller working populations, although their contribution to national production is significant. In Tunisia, 76.8% of small farms are rain-fed, 12.4% are mixed and 10.8% are rain-fed. Despite accounting for 78% of the total number of farms, small-scale agriculture occupies only around 43% of the country's total agricultural area (Jouili Mustapha, 2022). In Egypt, small farms account for around 35% of the country's total farmland, producing around 47% of field crops (Mashingaidze, 2022). Finally, in South Africa, the context is very different, as the primary sector is strongly marked by the historical consequences of racial imbalances in land tenure and dispossession under Apartheid. The country has the characteristics of an upper-middle-income country, since the share of the rural population accounts for just 34% of the total population, and the country has moved to an economy in which the service sector has become the main employer, including 71% compared with just 6% in agriculture (FAO, 2019). Indeed, commercial agriculture (dominated by white communities) occupies 87% of farmland, while small-scale agriculture (dominated by black communities) occupies just 13% (Aliber & Hart, 2009).

1. 2. Role and place of women

In all nine countries, women make a significant contribution to small-scale farming. Although the level

of their participation in this sector varies from one country to another, there are commonalities in terms of their representativeness in agricultural production, as well as the obstacles they face in carrying out this activity.

In terms of representation in agricultural production, women are strongly represented at 70% in Tunisia and Niger, 62% in South Africa, 50.6% in Burkina Faso, 45% in Egypt and 40% in Ethiopia. In other countries such as Mauritania, Nigeria and South Sudan, despite the lack of statistics, women play a major role at all stages.

Despite their significant representation in production, women face numerous constraints, including a lack of autonomy in terms of access to and management of land. In countries such as Egypt, Mauritania and Tunisia, where society is marked by conservative Islam and patriarchal culture, women's access to land is insignificant. It stands at 4.3% in Mauritania, 6.4% in Tunisia and is declining in Egypt, from 9.8% in 1990 to around 4.3% in 2010 (FAO, 2020). However, even though land is generally "male-dominated", women's access to land is higher in some countries. It is between 18 and 20% in South Sudan, Ethiopia, Niger, Burkina Faso and Nigeria. In addition, women face difficulties in accessing extension services, agricultural inputs and training, which are scarce, despite the fact that the African Union Commission's Land Governance Strategy 2023-2032 calls for the

> **"promotion of the advancement of land policies, laws, administration systems and accountable land governance in AU member states". Similarly, the Framework and Guidelines on Land Policies in Africa clearly states that "improved land development and productivity requires that women's land rights be strengthened through a variety of mechanisms, including the enactment of legislation enabling women to claim land, both within and outside matrimonial ties, with supporting documentation"** - (AUC-ECA-ADB, 2010).

However, although women's land rights are enshrined in the constitutions and/or land laws of some African countries, this does not bring concrete results in terms of equitable access to and control over land, due to insufficient implementation and enforcement of the laws. Similarly, the involvement of young people in small-scale farming varies from one country to another, depending on the political status of each country.

1. 3. Youth involvement in small-scale farming

In countries such as Egypt, Ethiopia and Tunisia, the tendency is for young people not to be interested in agricultural activities as a form of permanent work, and generally prefer to move towards service jobs, deemed less difficult (Aboulnaga et al, 2017). In Niger, on the other hand, 83% of young people work in agriculture, while in Nigeria, they are also involved in agricultural processing and agro-business activities along the agricultural value chain (Isfou Haladou, 2022). In South Sudan, rural youthas are mainly employed in the agro-pastoral sub-sector, while urban youths are more involved in non-agricultural activities (Owo Edmond, 2022). In South Africa, as part of the Youth Empowerment Strategy for Rural Development and Agrarian Reform launched in 2008, 7,958 young people aged 18 to 35 from 2,872 rural districts were recruited, at least 50% of them women. The program transferred 322,844.9931 hectares, corresponding to 288 projects, and gave 3,089 beneficiaries access to land through leases or janitor agreements[1]. In addition, to accelerate land redistribution and land reforms during the 2020/2021 fiscal year, 29,000 hectares were acquired, including 22,000 hectares under the land redistribution policy and 7,000 hectares under the National Beneficiary Selection and Land Allocation Policy. Over 7,500 hectares were allocated to women and 12,000 hectares to young people[2].

The major constraints in countries such as Egypt, Tunisia, Mauritania and Ethiopia relate to the difficulty of accessing land, the difficult nature of the work, the seasonal nature of small producers' agricultural income, fear of risk, uncertainty and lack of initial capital. In Niger, Nigeria and South Sudan, although young people are active in agriculture, they are subject to various factors of vulnerability, including widespread poverty, food insecurity, underemployment, lack of training, difficult access to water, limited agricultural support services, lack of experience and agricultural insurance. In South Africa, non-competitive wages, the physical nature of the work and a lack of

information on the various jobs in the agricultural industry are cited as causes. Despite government initiatives, youth participation in agriculture remains a challenge (Munhamo Chisvo, 2022). This is why one of the strategic objectives and priorities of the African Union Commission's land governance strategy is to "strengthen land tenure security and access to land and other productive resources for young people". The nine countries all have public policies in favor of small-scale agriculture that vary in their effectiveness.

1. 4. Public policy in favor of small-scale farming

Each of the nine countries has defined a public policy in favor of small-scale agriculture, ranging from programs and projects to laws and concrete actions that have led to success on the ground, sometimes with mixed results, depending on the country. Because of their specific features, these policies are presented country by country.

Burkina Faso has supported family farming through a National Rural Sector Program (2016-2020) as part of the implementation of the Agricultural Policy of the Economic Community of West African States. In concrete terms, this involves intensifying production systems and improving productivity by increasing inputs, implementing common regulations, combating diseases and epizootics, researching and disseminating techniques and technologies, and structuring sectors. The program has led to a sharp rise in agricultural production, the most significant of which are rice (+95%) and maize (+130%), cattle and small ruminants (+48%), poultry (+85%) and pork (+59%), according to FAO data (2020).

Egypt supported the national policy of small-scale agriculture by enacting agrarian reform laws in 1992. This freed up large areas of agricultural land for redistribution to landless farmers and poor social groups. In addition, small farmers and other vulnerable groups receive various types of direct aid: subsidized bread, ration cards for subsidized food products and subsidized energy, exemption from farmland tax for farmers owning less than three feddans[3], subsidized loans and fertilizers, implementation of health insurance programs for farmers, creation of a legal framework for contract farming, implementation of a pension scheme for farmers, enactment of agricultural insurance laws... (Aboulnaga et al. , 2017).

In order to achieve national food self-sufficiency, Ethiopia has implemented various programs since 1991 aimed at increasing small-holder productivity through research-based information and technology, increasing the supply of industrial and export crops, and ensuring the rehabilitation and conservation of the natural resource base, with particular attention paid to the holistic approach (Bure, 1998; Lemma and Beyene, 2000). Most of these policies and strategies have so far emphasized the use of modern agricultural technologies as the only source of agricultural growth for Ethiopia. However, despite policies and strategies to support small-scale farmers over the past three decades, population growth, environmental degradation, yields decline because of climate-related factors, low levels of innovation in agricultural input and capital constraints are all pressing constraints. In addition, the cost of modern technologies is so prohibitive that few farmers in limited areas of the country benefit from them to date (Welteji, 2018).

To support small-scale farming, Mauritania has adopted texts including, principally, the Agropastoral Orientation Law drawn up and adopted in December 2012 making it possible to regulate the areas used by pastoral populations, strengthen the protection of resource use rights for the various users and, above all, raise pastoralists' awareness about the issues involved in peaceful transhumance and harmonious resource management. As agricultural planning tools provided for in the Agropastoral Orientation Law, the Rural Sector Development Stratygy by 2025 was drawn up and adopted in 2013, along with a National Plan for the Development of Agriculture for the period 2015-2025 (Mohamedine Diop, 2022).

Niger has a number of strategies, including: the Sustainable Development and Inclusive Growth

1. https://www.gcis.gov.za/sites/default/files/docs/resourcecentre/pocketguide/014_rural_development.pdf

2. Departement of agriculture, landreform and rural development, Republic of South Africa, https://www.dalrrd.gov.za, consulted, 6 January 2024.

3. Land measurement reference in Egypt,which is 24 kirats, being a surface of 60 metres on70, thus 4200 m² (0,42hectares or 1,038 acres)

Strategy - Vision 2035; the Economic and Social Development Program 2017-2021, and the 3N Initiative, which have helped to strengthen national capacities in food production, supply and resilience in the face of food crises and natural disasters. In addition, as part of the National Gender Policy and the national strategy to promote youth entrepreneurship in Niger, particular emphasis is placed on supporting these groups in developing the enormous potential of agropastoral raw materials (tomatoes, cowpeas, milk, meat, onions, sesame, hides and skins, peppers, cereals, forest products), which offer significant opportunities for agro-industrial processing and modernization.

Numerous policies in Nigeria support small-scale agriculture, including the "Back to Land Policy", which aims to achieve self-sufficiency in food production, the "New Nigeria Agricultural Policy", which has made progress towards achieving self-sufficiency in basic food supplies and food security through the introduction of improved seeds and recognition of the potential of small-scale farmers (Olugbire et al., 2021).

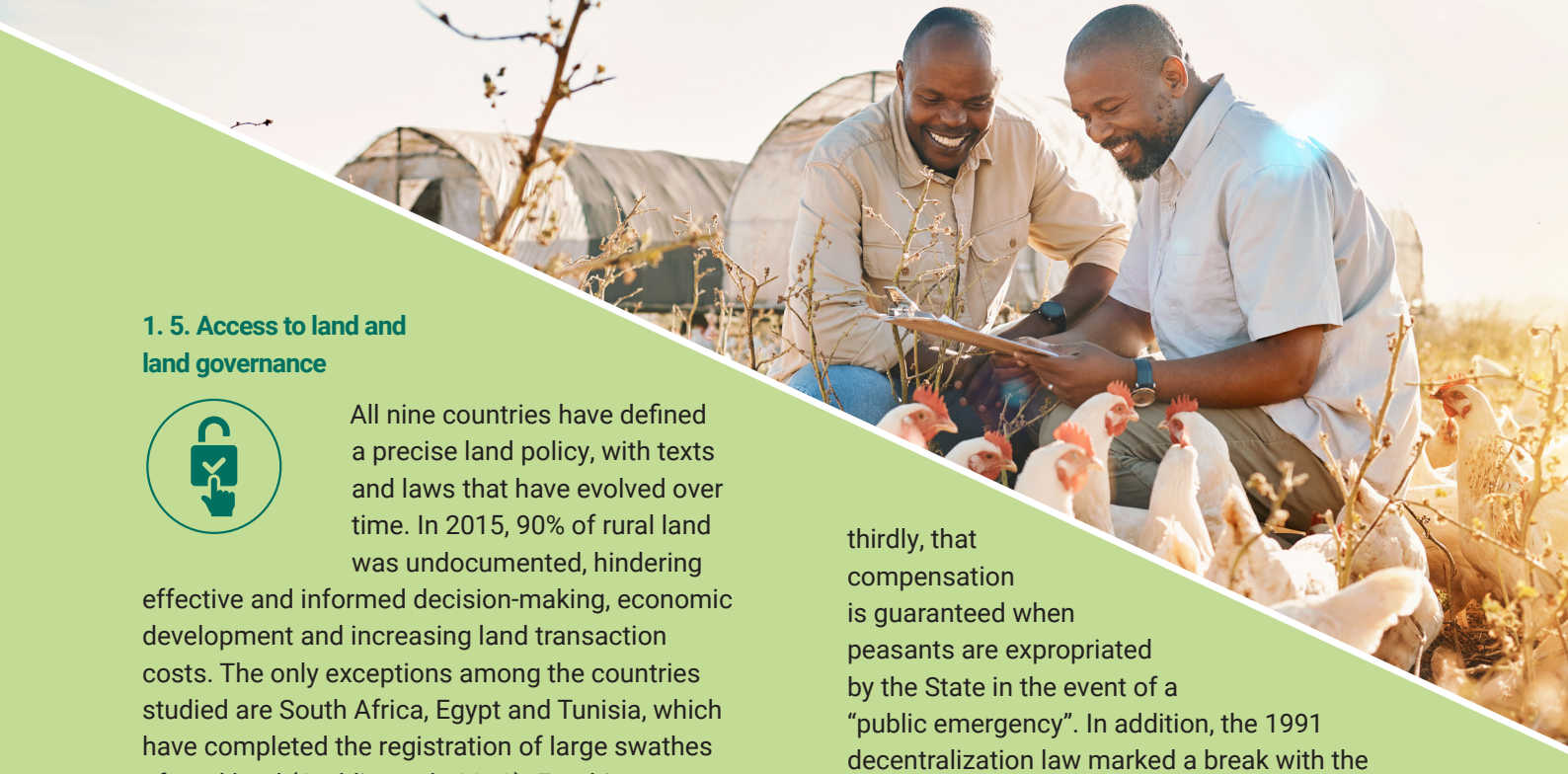
One of the most common public policies implemented in South Africa to support small-scale farmers is rural microfinance through equity participation programs initiated by the private sector in the 1990s. The South African NGO - SAVEACT, for example, has enabled its 26,000 members to access improved microfinance services through the use of new technologies. In absolute terms, South Africa has 3.3 million poor borrowers registered by its microfinance institutions (Servet, 2020). In addition, the South African government has introduced financing opportunities through the Comprehensive Agricultural Support Program. Furthermore, as part of the National Development Plan, the government has proposed the integration of small farmers into existing commercial value chains to achieve food and nutritional security (Munhamo Chisvo, 2022).

South Sudan, for its part, has a set of legal and regulatory instruments governing agriculture. In order to raise the level of the agricultural sector as a whole and make it a key industry for South Sudan's economy, the comprehensive agricultural development master plan has enabled the development of agricultural value chains, technical assistance and capacity building for farmers and their local supervisors. The country has also defined a national policy on agriculture and livestock to improve the livelihoods of rural populations by enhancing their food and nutritional security and resilience. To this end, better seed varieties, improved nutritional value of food crops, effective pest control and other scientific and technological improvements have been put in place to boost productivity (IGAD, 2022).

In Tunisia, strategic orientations for the agricultural sector are set out in five-year development plans, the most recent of which was drawn up for the period 2016- 2020. Strategic orientations have been defined to promote small-scale farming and strengthen its role in rural development, as well as to improve the living conditions of smallholders by providing them with infrastructure and means of production, and by working to limit the impacts of climate change. The plan also calls for the implementation of laws and programs relating to social and economic support, as well as social coverage for rural women and improved transport conditions for farmers. The same plan proposes revising the legal framework governing co-operative societies and continuing awareness-raising programs on the importance of joining these societies to benefit from the agricultural services they provide (Jouili Mustapha, 2022). Yet, in the framework and guidelines on land policies in Africa, it is noted that

> **"agriculture is the main source of subsistence for the majority of the population and the main contributor to economic growth. Land is important for all forms of agricultural production, including cereals, horticultural products, livestock, fishing and hunting. Land is also a major factor in the processing and marketing of products derived from these activities. In all African countries, there are still traditional systems of land management and administration. These systems are not always homogeneous, even within the same country, and can be either favourable or counterproductive to effective land management for agriculture. A number of improvements in the land sector will be necessary to ensure that the enabling environment is created for agricultural development"** - (AUC-ECA-BAD, 2010).

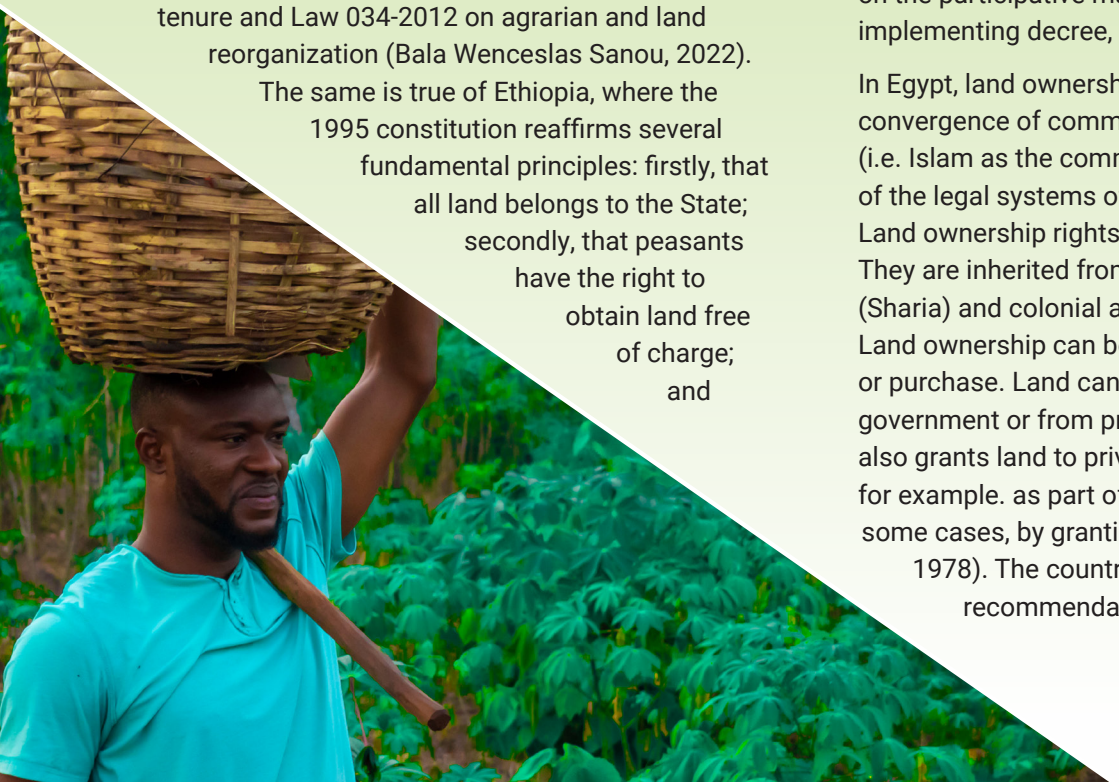
The following analysis of access to land and land governance provides a better understanding of the policies adopted by each country.



1. 5. Access to land and land governance

All nine countries have defined a precise land policy, with texts and laws that have evolved over time. In 2015, 90% of rural land was undocumented, hindering effective and informed decision-making, economic development and increasing land transaction costs. The only exceptions among the countries studied are South Africa, Egypt and Tunisia, which have completed the registration of large swathes of rural land (Gaddis et al., 2018). For this reason, the Framework and Guidelines on Land Policies in Africa suggests that "African governments must take appropriate measures to ensure that land plays its essential role in the development process and, more specifically, in social reconstruction, poverty reduction, increasing economic opportunities for women, strengthening governance, managing the environment, promoting conflict resolution and driving agricultural modernization" (AUC-ECA-AfDB, 2010). In this context, several of the countries studied have included land issues in their fundamental laws and national policies long before the existence of the AU Agenda on these issues.

In Burkina Faso, for example, there are laws on land ownership that provide a legal basis for securing the land rights of rural stakeholders, including women and livestock breeders: Law 034-2009 on rural land tenure and Law 034-2012 on agrarian and land reorganization (Bala Wenceslas Sanou, 2022). The same is true of Ethiopia, where the 1995 constitution reaffirms several fundamental principles: firstly, that all land belongs to the State; secondly, that peasants have the right to obtain land free of charge; and thirdly, that compensation is guaranteed when peasants are expropriated by the State in the event of a "public emergency". In addition, the 1991 decentralization law marked a break with the centralization efforts of the previous government. Land management was transferred to the regional level in 1997 (Lemlem Aregu, 2022).



Mauritania's current land tenure system is based primarily on Ordinance no. 83-127 of June 5, 1983 on land and property reorganization. Its main content is that: land belongs to the nation and any Mauritanian, without discrimination of any kind, can, by complying with the law, become its owner. The State recognizes and guarantees private land ownership. The system of traditional land tenure is abolished. In addition, all property rights not directly linked to a natural or legal person and not resulting from a legally protected development are non-existent. In addition, there are other legislative and regulatory texts relating to land tenure, such as the environmental code, the pastoral code, the forestry code, the water code, the law on the participative management of oases and its implementing decree, etc. (Mohamedine Diop, 2022).

In Egypt, land ownership rights are the result of the convergence of common factors, such as religion (i.e. Islam as the common religion) and the remnants of the legal systems of the Egyptian colonial masters. Land ownership rights are multiple and complex. They are inherited from pre-Islamic (Orf), Islamic (Sharia) and colonial and post-colonial legislation. Land ownership can be obtained by inheritance or purchase. Land can also be leased from the government or from private owners. The government also grants land to private individuals and entities, for example. as part of reclamation projects or, in some cases, by granting rights to squatters (Ziadeh 1978). The country is fully in line with the recommendations of the Framework and

Guidelines on Land Policies in Africa, which note that

> **systems for the recognition of land rights include methods for the verification, demarcation, surveying, registration and documentation of land rights, as well as the systematic monitoring of land transactions** - (AUC-ECA-ADB, 2010).

Indeed, it applies two property registration systems: a title registration system and a deed registration system.

In Niger, land tenure policy is implemented by the Rural Code through Land Commissions at all levels. The adoption and implementation of the Code Rural and its complementary texts cover "all rights of ownership, use and management of natural resources, as well as the conditions for securing investment in the agriculture, livestock and forestry sectors" (Isfou Haladou, 2022).

In Nigeria, the main legal basis for land governance is the 1978 Land Use Act, which limits the role of customary authority in land governance and gives the state a leading role in the administration of land resources. This law also aims to prevent land speculation by imposing far-reaching restrictions on land transactions. The country also has a policy of decentralization, which confers authority on the State Governor, who in turn delegates this authority to the Land Commissioner. Regarding security of tenure for small-scale farmers, the law provides for the registration of rural land using the instrument of customary certificates of occupancy, which are supposed to be issued by local governments (Adetimehin, 2018).

Different forms of land tenure and ownership - tribal, state-owned, trust land, quitrent and freehold - are present among smallholder farmers in South Africa. The land tenure system in the former homelands is mainly dominated by communal land. In line with the recognized traditional communal system of land ownership, community members use most of the land in tribal communities (Mpandeli, 2006).

South Sudan's 2009 Land Act (Chapter 1, Article 5) defines several key objectives relating to land tenure. There are three types of land tenure in Southern Sudan: public land, community land and private land. Land governance is still predominantly customary, with traditional courts being the most accessible dispute resolution institutions in rural areas (IGAD, 2022).

Legal provisions exist in Tunisia to defend legitimate land rights. Article 41 of the new constitution states that "the right to property is guaranteed". Article 17 states that "ownership confers on its holder the exclusive right to use, enjoy and dispose of his property", while article 20 assures that "no one can be forced to cede his property except in the cases provided for by law and in return for fair compensation" (Jouili Mustapha, 2022).

The Framework and Guidelines on Land Policies in Africa mentions that

> **best practices indicate that the transfer of land management competencies and the decentralization of land service provision to local land governance institutions are of crucial importance if problems of inefficiency and corruption are to be effectively highlighted and addressed. Such an orientation will require reforms or even a total overhaul of economic and political decision-making procedures** - (AUC-ECA-ADB, 2010).

Moving in this direction, countries such as Ethiopia, Nigeria, Burkina Faso, Egypt and South Sudan have adjusted their land management policies. Indeed, Ethiopia can be presented as a good example of decentralized land administration systems, which have been partially and successfully implemented. In some of Ethiopia's federal states, for example, land administration responsibilities have been devolved to the local government level, facilitating the registration and certification of household landholdings (Lemlem Aregu, 2022). In Nigeria, the Land Use Act confers considerable power over land administration on the State Governor, who may however delegate this authority to the Commissioner of Lands. Under the Land Use Act, each state must set up a Land Use and Allocation Committee to advise the governor on urban land management (Okunlola, 2022). In Burkina Faso, as part of the implementation of law 034-2009, the central government has transferred responsibility for rural land management and related natural resources to the communes, with the support of village land

commissions and village development councils (Bala Wenceslas Sanou, 2022). In Egypt, the governorate controls desert land within village boundaries and adjacent land up to two kilometers outside the village, unless the land is for national use (Mashingaidze, 2022). Similarly, in South Sudan, the Land Act gives authority for land administration in rural areas to community leaders (Owo Edmond, 2022).

The Framework and Guidelines on Land Policies in Africa also mentions that "equitably distributed and efficiently managed, land can play a decisive role in eradicating poverty. Securing land rights, redistributing land to those who need it, improving access to land resources and generalizing the provision of land services can also contribute to poverty eradication" (AUC-ECA-AfDB, 2010). However, a number of persistent factors still contribute to limiting small farmers' access to land, including the poor security of access rights, particularly for migrants, rural women and herders in all the countries studied. This situation is at the root of several recurrent land conflicts, and is due to the poor dissemination of opportunities and local structures responsible for securing land rights. Then, there is land grabbing by farmers with good financial capacities who buy from vulnerable producers. However, access to land ownership remains marginal for poor smallholders, particularly women and young people, due to insecurity and cultural constraints. In addition, the process of obtaining and perfecting land titles is cumbersome, time-consuming and often costly. In communities where land is collectively owned, community leaders determine the type of crops that can be grown.

In addition, migrants may find it difficult to acquire land for farming and other economic activities due to the cultural issue associated with land. Several factors, including administrative delays, lack of transparency, complex procedures for individualizing tenure, undue gratification and lack of accountability, have been identified as inhibiting land governance.

Land conflicts in all countries are also factors that hamper the development of the agricultural sector, and have had a direct impact on local and national food security. They generally lead to the destruction of crops, the displacement of farmers or the dispossession of their land. Despite this, peaceful coexistence has been observed between herders and sedentary farmers, with mutually beneficial economic exchanges. Transhumance is an opportunity for both parties to benefit from natural resources (African Union, 2010). Indeed, the importance of the annual cycle linked to the seasons - both production time and social time - is characterized by the incessant quest for spatially dispersed resources, in particular water, pasture and salt cure, which are essential for the development of livestock (Piguet, 1998).

Generally speaking, land administration systems in the countries studied suffer from incomplete or non-existent land registers, unclear land transaction processes, cumbersome and time-consuming service provision, and high transaction costs. This hampers the formalization of property rights and exposes vulnerable, poor and low-income owners or users to land grabbing. Other challenges include a lack of financial, technical and human capacity to ensure that land administration services related to land use, planning, valuation, surveying, registration and adjudication are easily accessible at the local level (Prindex, 2019).

Despite land policies generally in favor of small-scale agriculture (especially in terms of decentralization), the sector faces difficulties (especially in terms of policy implementation) due to costs, conflicts, cultural barriers, etc.

1. 6. Climate change and small-scale agriculture

In Sahelian, Saharan and Sudanian countries, small-scale agriculture is subject to the vagaries of rainfall, characterized by an uncertain distribution of the number of rainy days in time and space. The disruption of rainy seasons, drought, reduced rainfall, higher temperatures, flooding, hot, dry winds and pockets of drought lead to crop losses, disrupted productivity, land degradation and more. Climate change is therefore having a devastating effect on people's livelihoods and well-being, particularly small-scale farmers whose main livelihood depends on rain-fed agriculture. Climate change is likely to exacerbate the effects of anthropogenic factors (deforestation, fires, erosion, etc.) on soil quality. The increased frequency of extreme events, such as heavy rains and droughts,

could accentuate erosion. More specifically, here are some of the phenomena linked to climate change that impact small-scale agriculture:

- Warmer temperatures and more frequent droughts;
- Dysfunctions in rainfall, with delayed onset and irregular spatio-temporal distribution;
- Increasingly violent winds, accompanied by more dust, with no fixed direction or period, hot and dry, smothering crops;
- A drop in production and yields, with a deterioration in genetic performance (quality, insufficient ripening), the disappearance of certain species, poor germination leading to several reseeding, and very slow crop growth (stunted growth, poor development);
- The appearance of various diseases and more aggressive behavior by crop pests (granivorous birds, locusts, armyworms, mice and rodents, etc.);
- Soil degradation and impoverishment, silting up, degradation and declining fertility, as well as the abandonment of certain lands;
- scarcity of water resources, the drying-up of ponds, intermittent flooding, low water levels and difficulties in controlling water, as well as the remoteness of the water table;

As a result, we observe in each of the countries studied a rapid deterioration in crop quality and a general decline in land productivity. Besides, these phenomena accelerate impoverishment, which in turn reduces the capacity of smallholders to adapt.

Every country has a public policy dedicated to climate change, and takes action through adaptation programs and projects:

- National climate change adaptation programs exist. In Burkina Faso, for example, a national action program for adaptation to the variability and effects of climate change was drawn up and implemented between 2009 and 2014, and a national plan for adaptation to climate change between 2015 and 2020. This has led to the provision of improved seeds and some fifteen good agronomic practices for sustainable land management, including zaï, half-moons, grass strips, filtering dikes and composting (Bala Wenceslas Sanou, 2022). Niger has set up a National Action Program for Adaptation to Climate Change, with the use of early varieties, intensification of inputs through changes in fertilizer doses (mineral and organic), assisted natural regeneration, changes in sowing dates and the adoption of organic and mineral fertilizers, zaï, half-moons and benches (Isfou Haladou, 2022). South Sudan has a National Action Program for Adaptation to Climate Change, closely linked to food security and covering water resource management, rain-fed agricultural production and pastoral rangeland productivity, institutional and individual capacity building for climate risk management interventions within the agricultural sector and knowledge management, codification of best practices and replication opportunities (Owo Edmond, 2022). In Mauritania, the National Mobilisation Initiative for the Promotion of Agriculture aims to improve traditional rain-fed cereal systems and irrigated rice harvesting systems by improving seeds, fencing off production sites to protect farms from stray animals and avoid the conflicts they cause between farmers and breeders, and creating appropriate and attractive production conditions for young people (progressive mechanization, input supplies, etc.) (Mohamedine Diop, 2022). In 2022, Egypt launched a new national strategy to combat climate change by 2050, with the aim of achieving sustainable economic growth, strengthening adaptation to climate change, improving action management and infrastructure to finance climate activities, and supporting scientific research, technology transfer and awareness-raising about the fight against climate change[4] (Mashingaidze, 2022).
- Legislation on climate change has been passed, notably in Nigeria, which became the first country in West Africa to adopt comprehensive and autonomous climate change legislation in 2021, and plans to set up a Climate Change Fund, nature-based solutions and environmental and economic accounting, carbon trading mechanisms and a carbon tax, with a strong emphasis on education and awareness-raising (Okunlola, 2022).

We therefore observe a mobilization of countries in the context of climate change adaptation in small-scale agriculture. However, in line with the recommendations of the Framework and Guidelines for Land Policy in Africa, countries do not seem to be prioritizing land tenure reforms with the aim of

> **"paying close attention to the development and implementation of mitigation and adaptation measures, including the mobilization of the necessary capacities for the long-term management of the effects of such changes"** - (AUC-ECA-AfDB, 2010).

[4] www.sis.gov.eg consulted, 24 December 2023.

Photo 1 illustrates an adaptation strategy for maximizing production opportunities through crop association in Burkina Faso

Photo by Kossoumna Libaa Natali (July 2019)

Photo 1. Groundnut-fonio association in Burkina Faso

The second part of this report deals with pastoralism, starting with the general characteristics for each country and rangeland management.

2. Pastoralism

Pastoralism is an animal production system in which feeding is essentially based on the exploitation of grazing lands. Depending on their extent, three pastoral systems exist in the nine countries: sedentary pastoralism, transhumant pastoralism and nomadic pastoralism.

2. 1. General characteristics and rangeland management

To varying degrees, sedentary pastoralism coexists with transhumance and nomadism depending on the country. In the sedentary system of Burkina Faso, Niger, Nigeria, South Sudan and Egypt, the grazing area of their animals extends over a radius of 10 km around the place of residence, with home territories (1 to 2 km) and proximity territories (5 to 10 km). Resources consist of rain-fed and dry-season crop residues available two to three months after harvest, natural rangelands and flooded pastures.

Transhumant pastoralism is present in Mauritania, Niger, Nigeria, South Sudan, Burkina Faso, Tunisia and Ethiopia. It is characterized by a large herd (30 to 60 head/person), mixed strategies based on transhumance with a circuit ending with a systematic return to the home territory. After grazing in the vicinity of their home and nearby villages, they head for the flood plains and watering holes in other areas. Livestock rearing is the main activity of these farmers, who also engage to a lesser degree in agricultural activity, essentially food production. This livestock-raising system benefits from a number of advantages, including unpaid tacit agreements with farmers for access to nearby pastures and harvest residues. Exchanges of milk and cereals, and the sale of milk in neighboring villages and markets, also help to bring farmers and herders closer together.

Nomadic pastoralism is found in Mauritania, Ethiopia, Egypt, Niger, Nigeria, Burkina Faso and South Sudan. It is characterized by mixed strategies involving the relocation of most or all of the herd, with long-range movements from the home territory if it exists, and regular incursions into protected areas. Their resources consist mainly of rain-fed and dry-season crop residues, natural rangelands, flooded pastures and aerial pastures (pruning, trimming, etc.). Their average travel distance is 100 to 200 km. Income diversification is achieved through mixed herds of cattle, sheep and goats, as well as donkeys, horses and camel-drivers, depending on the country.

In terms of rangelands, countries such as Burkina Faso, Ethiopia, Egypt, Nigeria and Tunisia have average grazing areas, while Mauritania, South Africa, Niger and South Sudan have extensive rangelands. Burkina Faso has three major agro-ecological zones and 26 managed areas (Bala Wenceslas Sanou, 2022). In Ethiopia, pastoralists optimize farmland resources by practicing a mobile, extensive breeding system where animals feed on natural rather than cultivated land. With this mobility strategy, they proceed by splitting, diversifying and maximizing herds, to ensure that they spread the risks of livestock loss due to drought, disease and theft (Lemlem Aregu, 2022). Egypt has 4 to 10 million hectares of rangeland covered by sparse vegetation in the semi-arid to hyper-arid range (Mashingaidze, 2022). Nigeria has 415 grazing reserves, but

only a third are in use, the rest being established on agricultural land. Only 24 reserves have been declared by the government and are entitled to the services provided by the grazing reserve laws (Kaufmann, Chater, & Blench, 1986). Tunisia has around 4.5 million hectares of grazing land, mainly in the arid and desert bioclimatic zones. Transhumance makes it possible to spread the animal load over very large areas, to take advantage of complementarity between regions and at the same time to give rangelands the rest they need to recover (Jouili Mustapha, 2022). In Niger, on the other hand, grazing land represents 62 million hectares (or 45% of the territory) and is divided between the pastoral and agricultural zones (Ministry of Agriculture, 2015). South Africa is also known to have vast, open rangelands, with sufficient vegetation cover still accessible to feed livestock. Natural rangelands form the basis of extensive livestock industries (Munhamo Chisvo, 2022). Similarly, in South Sudan, in existing rangelands, the communities concerned also cultivate crops in a closely linked agro-pastoral production system (Owo Edmond, 2022). In Mauritania, there are also nomadic pastoral systems, transhumant pastoral and agropastoral systems, agropastoral systems with sedentary livestock combined with agriculture, extensive urban systems and semi-intensive peri-urban systems (Mohamedine Diop, 2022). Depending on the country, women play a more or less visible role in pastoralism.

2. 2. Role and place of women in pastoralism

In all nine countries, gender determines the division of pastoral labor and plays an important role. In Burkina Faso, Niger and Nigeria, women are at the heart of traditional livestock farming, involved at almost every link in the chain, notably in production, processing and marketing, as well as in related activities (milking, enclosure maintenance, etc.). They are very active in the management of the small ruminants and the poultry they own. They also tend to organize themselves into pastoral women's associations. In other countries, women tend to play a less significant role in pastoralism. In Mauritania, for example, women's involvement is limited to hut rearing to meet urgent and unforeseen family expenses. However, they play an essential role - notably through women's associations - in the development of livestock by-products such as the sale of milk and other by-products such as leather (Mohamedine Diop, 2022). In South Africa, pastoral women are responsible for vulnerable livestock kept close to home, and for processing and petty trading in dairy products, while men and young people look after the herd. Despite a secondary role in herd management, these pastoral women are key agents in livelihood development (Munhamo Chisvo, 2022). In other countries, including Egypt, Ethiopia and South Sudan, women play a negligible role in pastoralism. Men are the main decision-makers when it comes to livestock production, guarding mobile herds, selling meat animals and overseeing general herd management. As for the women, they take care of secondary activities such as milking, milk processing and marketing surplus dairy products from cattle kept near the camp. It should also be noted that in some countries, trends are changing, as is the case in Tunisia, where women are increasingly taking on responsibilities traditionally considered masculine: irrigation, cattle grazing, buying and selling at markets (ICARDA, 2020).

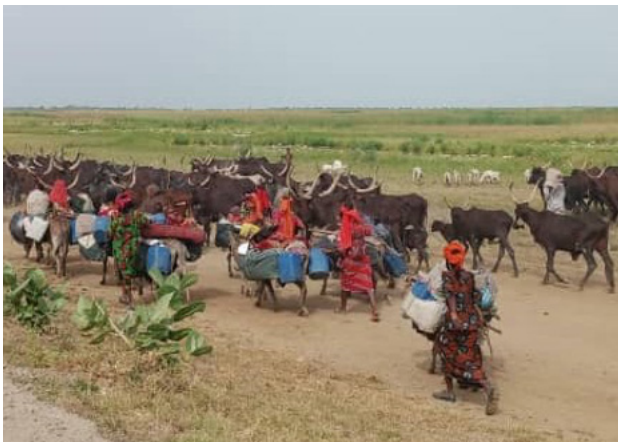


Photo Kossoumna Libaa Natali (January 2020

Photo 2. Transhumance of cattle with women in southern Niger

In pastoralism, women face more or less similar challenges in the nine countries, notably in terms of property rights, decision-making, mobility limited by pregnancy and child-rearing, gender inequality affecting their roles and responsibilities, and the use and control of income. In Burkina Faso, women are more confronted with the constraints of insecurity and socio-economic adaptation (Bala

Wenceslas Sanou, 2022). In Ethiopia, they face the difficulties of low income and greater household burdens than men, with customary and religious restrictions limiting their financial capacity and their role in decision-making (Lemlem Aregu, 2022). In Niger, they face numerous limitations in terms of technical and financial capacity and access to financing opportunities to undertake and maintain themselves in pastoral systems (Isfou Haladou, 2022). In Nigeria, they have little control over livestock, although in theory, they could normally own them (Okunlola, 2022). In South Sudan, they do not own assets such as land and livestock, and have only a very limited say in financial matters, and do not participate in major decision-making (Owo Edmond, 2022). In Tunisia, they own less land and livestock, have greater difficulty accessing finance and lack training in pastoralism (Jouili Mustapha, 2022). The role of young people in pastoralism also deserves particular attention.

2. 3. The role of young people in pastoralism

Young people are involved in tending and feeding livestock in Egypt, Niger, Burkina Faso, Mauritania and Ethiopia. However, they are changing pastoral norms as they migrate to urban areas in search of social and economic independence. Even more, in Nigeria, young people practice animal husbandry as their main source of income, but they have limited power in livestock management, as grazing decisions are mainly made by older family members (Oyelami et al., 2019).

Photo Kossoumna Libaa Natali (October 2019)

Photo 3. Youth involvement during the great transhumance in Niger

In South African pastoral societies, young men generally acquire prestige by being brave and successful in predatory raids and accumulating large herds of animals mostly as individuals. This illicit activity is at the root of their tense relations with the central authorities. In addition, their very limited political influence and the irruption of international transhumance into local migration areas make them vulnerable (Munhamo Chisvo, 2022). In southern Sudan, young people are the main custodians of livestock and actively participate in feeding, protecting and trading them, but socio-economic and political development policies in their favor are insufficient and weak. They do not feel considered in the political agenda (Owo Edmond, 2022). In Tunisia and Egypt, on the other hand, young people are not attracted by pastoralism, preferring to migrate to the big cities or abroad in search of more stable, better-paid employment, with a view to having room to maneuver and acquiring autonomy outside their family home (Jouili Mustapha, 2022). Several constraints to transhumance exist and persist.

2. 4. Constaints to transhumance

Numerous constraints affect the productivity and income of pastoral activities in all the countries. In Burkina Faso, the main constraints to transhumance are currently armed insecurity, the increasing poverty of pastures in the north leading to early departures for large-scale transhumance, the reduction in grazing areas due to agricultural expansion and increased land sales, and the virtual disappearance of passage corridors. There is also a lack of infrastructure on the rangelands for watering animals and providing health care, and a worsening of agro-pastoral conflicts (Bala Wenceslas Sanou, 2022). In Ethiopia, mobility routes and access to dry-season pastures have been disrupted, reducing transhumance by pastoralists (Lemlem Aregu, 2022). In Egypt, rangelands have deteriorated considerably in terms of productivity, biodiversity and resilience to various stress factors. The negative effects of human activities such as overgrazing, deforestation, erosion, soil degradation, desertification, conversion of dryland use to agriculture and tourism, and urban encroachment have put pressure on rangelands that are now in poor condition (Mashingaidze, 2022). Despite the existence of legal and institutional tools in Niger, Nigerien herders criticize the Rural Code, and demand the creation of a “Pastoral Code” that would defend their rights and practices (Habibou et al., 2018; Bonnet, 2013; Bodé et al., 2010).

Insecurity, severe droughts and lack of state investment are other factors making pastoralists vulnerable. Risks threatening rangelands in Nigeria, South Sudan and South Africa include invasion by unwanted plants, overexploitation of fodder resources, bushfires, conflicts, rangeland policy, floods, diseases and pests, farm encroachment, settlement policy, soil erosion, drought, population increase, road construction, urbanization, illegal mining, poaching, etc. (Shiawoya & Tsado, 2011; Kubkomawa & Lawal, 2021; Khobe, Akosim, & Kwaga, 2015). In terms of challenges in Tunisia, there is overgrazing, the privatization of collective lands leading to their conversion into olive groves, irrigated perimeters and cereal lands; the reduction in the area of rangelands and the diversity of land tenure statuses, actors as well as management organizations. The absence of a specific legal framework for rangelands and pastoralism is also seen as a vector for the degradation of pastoral areas and a brake on the growth of pastoral activity. Pastoralism also suffers from the absence of a clearly identified institutional organization at national level (Jouili Mustapha, 2022).

In addition, agropastoral conflicts have increased over the last ten years, with not only a direct impact on the lives and livelihoods of those involved, but also disorganization and a threat to the sustainability of agricultural and pastoral production systems. In Burkina Faso, South Sudan, Niger, Nigeria and Mauritania, the attachment of herders and their animals to farmers has led to the multiplication and diversification of conflicts over natural resources and territories. Whereas conflicts used to be concentrated during the harvest period, due to crop damage, we are now witnessing not only their continuous spread throughout the year, but also an increase in their frequency. As a result, conflicts linked to crop damage have risen sharply in recent years, and are the focus of concern for both farmers and livestock breeders, who blame each other. For the farmers, the situation is the result of a deliberate refusal on the part of the breeders to respect established practices. Breeders are accused of staying longer with their animals in their home territories, while the crops of farmers in neighbouring villages are already well developed. On the other hand, farmers say that herders no longer respect the “date for freeing the fields” to undertake the return of transhumance. They also accuse herders of intentionally letting their animals devour the unharvested part of a field. This is why they are systematically forbidden to graze when a plot is not fully harvested. Breeders, for their part, believe that the issue of field damage is linked to the obstruction of passage corridors, resting and parking areas, which have been systematically colonized by farmers to expand their crops. They complain of “trap fields” or “provocation fields” around ponds and along rangelands. The problems of “late-harvested cotton” fields have also been reported by herders in Burkina Faso (Bala Wenceslas Sanou, 2022) and Nigeria (Okunlola, 2022), prompting herders to leave or stop using certain grazing areas.

Livestock corridors are also at the heart of agro-pastoral conflicts, particularly during transhumance, when herders need passageways to migrate with their herds in search of pasture or to access water points. The disappearance of certain corridors has very often led herders to use the roads and tracks used by cars, exposing animals and other road users to accidents and therefore to another fine linked to animal rambling (photo 4).

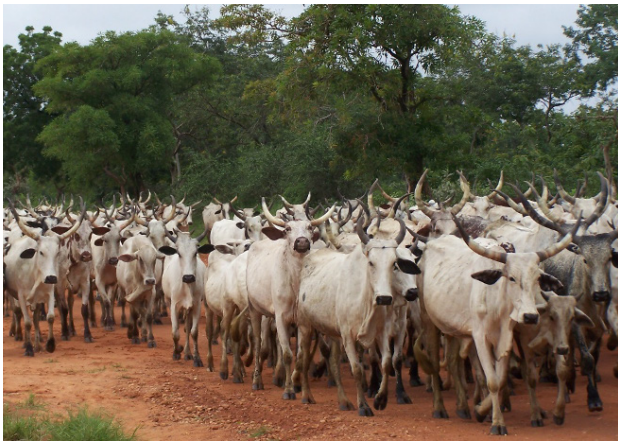


Photo: Kossoumna Libaa Natali (May, 2020)

Photo 4. Departure of transhumant animals on the road in western Nigeria.

Obstructed access to water also leads to conflicts along the watercourses where animals drink when transhumant or away from their home territories. Access to other water points (boreholes, ponds, wells) is the other major cause of conflict between herders and farmers. Indeed, the poor distribution of pastoral wells,

the non-functioning of most of them, and the early drying-up of ponds make access to water a major issue in conflicts.

Furthermore, the increased frequency and scale of cattle rustling is both a cause and an effect of violent conflicts, particularly in South Sudan since the war of independence and the civil war since 2013, which have disrupted traditional conflict resolution mechanisms. In Niger, the need to protect themselves against cattle theft has led herders to arm themselves, resulting in more armed violence during conflicts between farmers and herders. Meanwhile, aggrieved groups may perceive stealing cattle from communities with which they are in conflict as a form of justice. In many Nigerian states, "war economies" have emerged around livestock trade networks and migration routes. Repeated theft of livestock has made transhumance more difficult, with the threat of terrorism, the circulation of small arms and the various forms of trafficking creating cross-border insecurity. Several public policies and institutions support pastoralism in each country.

2. 5. Public policies and institutions in favor of pastoralism

Sahelian countries such as Mauritania, Niger, Nigeria and Burkina Faso are in the process of developing decentralization programs and revising their land legislation, some of them extending the process to the pastoral domain. These countries are beginning to recognize the economic, social and ecological role of pastoralism, and are showing their willingness to support the development of this activity within the framework of sustainable resource management and decentralization of responsibilities, as suggested by the framework and guidelines on land policies in Africa (AUC-ECA-AfDB, 2010).

The Mauritanian government drew up the Pastoral Code on the basis of a participatory process (Khtour, 2001). Since the promulgation of this pastoral code in June 2000, the traditional livestock-raising system, essentially based on the mobility of livestock, has been better organized and controlled, with the delimitation and securing of national and cross-border transhumance corridors, the multiplication of hydraulic infrastructures and other water points for pastoral use, and the effective involvement of the local population in decision-making and management of areas and infrastructures.

In Burkina Faso, livestock farming benefits from a policy of securing and sustainably managing pastoral resources. In 2002, the country adopted a law on pastoralism, which enabled the development of 26 grazing zones covering 775,000 hectares out of more than the 160 potentially developable areas, and the establishment of committees for the peaceful management of areas and conflicts. It is also in the wake of this policy that pastoralist organizations (APESS, CRUS[5], RECOPA[6], RBM[7], etc.) have been integrated to create a favorable environment for beneficial pastoralism, using existing texts and laws in this field (Bala Wenceslas Sanou, 2022).

The same is true in Niger, where the major challenges facing pastoralism have led the government to draw up and implement a national livestock development policy and, since 1993, to adopt a rural code that has led to the demarcation and protection of pastoral enclaves, passage corridors or stabling areas for livestock in agricultural zones, and access to water. In addition, and as part of land governance, land commissions, administrative and customary authorities and producers (farmers and herders) have been structured to guarantee herders' right of access to natural resources (Isfou Haladou, 2022). In 2010, a complementary ordinance was adopted for pastoralism, with real progress achieved through:
i) the recognition of pastoral mobility as a fundamental right of herders, nomadic and transhumant pastoralists;
ii) the consecration of the state status of pastoral resources;
iii) the prohibition of any form of exclusive appropriation of pastoral land belonging to the public domain of the State or local authorities.

In Nigeria, following the adoption of the African Union's policy framework for pastoralism and the 1998 ECOWAS[8] Transhumance Protocol, the National

Environment Regulations were promulgated in 2009. This has made it possible to regulate how land owners or occupiers use land in watersheds, mountainous areas, hills or catchments, including grazing reserves. At the same time, a very strong system of customary land tenure is being put in place, with responsibility for managing agricultural land, including rangelands, being transferred to local authorities and local advisory councils (Okunlola, 2022).

Public policy in support of pastoralism in South Sudan is implemented in an integrated way, since most of the legal and regulatory instruments governing small-scale agriculture also take pastoralism into account. The country's agriculture and livestock policy has helped transform these sectors from traditional systems to more advanced ones capable of ensuring food security and economic growth. Grazing areas with seasonal mobility, perfected over generations, have enabled large numbers of animals to be kept on rangelands. At the same time, rangeland management and planning is now a participatory process that begins with the communities themselves (Owo Edmond, 2022).

In Egypt, there are no specific policies in terms of legislation, strategy and action plan that support pastoralism (Mashingaidze, 2022). However, synergies between the Ministry of Agriculture and Land Reclamation, research and extension services, the Ministry of the Environment and universities have made it possible to set up rangeland monitoring and management schemes, and to experiment with and develop extension programs around forage plants and rangeland management and conservation techniques (Rizk and Saifelnasr, 2020).

Although development policies in Ethiopia favor small-scale farming to the detriment of pastoralism, the 1995 constitution integrates pastoralism issues. Indeed, it gives pastoral communities the right to free grazing, to the equitable use of natural resources, to access the market and receive a fair price, and not to be displaced from their own land. The State has also created a department within the Ministry of Federal Affairs to coordinate and facilitate the development of pastoral areas. Similarly, Ethiopian pastoralists have traditional institutions and organizations that facilitate resource ownership and management, including grazing, conflict resolution, wealth sharing and redistribution, and governance (Lemlem Aregu, 2022).

In Tunisia, in a context of chronic food deficit, justifying a policy of intensifying agricultural production, livestock systems have undergone remarkable intensification. Indeed, the use of animal supplements, with feeds purchased on the market or self-produced by the farmer, has become a structural feature of the livestock system, even in regions where pastoral livestock farming dominates. What's more, in steppe areas that were once pastoral, the State has chosen to transform a large part of these steppes into tree plantations and irrigated perimeters. In addition, the state allocates substantial budgetary resources in the form of subsidies granted directly to the beneficiaries of pastoral development projects through the provision of cattle feed (Jouili Mustapha, 2022).

In South Africa, pastoralism does not feature prominently in government policy and strategy documents. It is mentioned superficially in national policy debates and plans, such as the National Development Plan, where mixed farming and livestock are encouraged partly for environmental reasons (Munhamo Chisvo, 2022). This tends to reflect the relative insignificance of pastoralism in national development, in the eyes of policymakers and development practitioners in South Africa. Pastoralism is also suffering the effects of climate change.

2. 6. Climate change and pastoralism

Pastoralists know their region, the terrain, ethnic groups, local tribes, tribal cultures, ecosystems, climate, vegetation, the existence of hazards and diseases, and water resources. Pastoralists' understanding, appreciation and interpretation of changes in their environment, and the way they respond to them, are the foundation of their survival. Pastoral communities are therefore effectively aware of the phenomenon of climate change (Idoma & Yakubu, 2020). Herders are witnessing profound and worrying changes in the structures and boundaries of pastoral zones, in the quality and quantity of natural fodder, in animal productivity, and also in the distribution

[5] *Regional Committee of production units in the Sahel*

[6] *Communication Network on Pastoralism*

[7] *Maroobé Billital Network (Promotion of pastoral breeders)*

[8] *Economic Community of West African States*

of diseases and parasites. Livestock farmers note a sharp decline in the quality of grazing in rangelands, based on certain indicators that enable them to identify degraded or deteriorating areas. These include the proliferation of undesirable grasses such as Cassia tora and Hiptis lanceolata. These indicators enable them to avoid these areas so that they can regenerate. However, when this is unavoidable, keeping animals on degraded areas forces them to consume certain previously unpalatable woody species such as Terminalia laxiflora and Sterculia setigera. Deprived of part of their grazing land due to insecurity of tenure over the rangelands, herders are increasingly using the leaves and fruits of trees to feed their livestock (Kossoumna Liba'a, 2008). In South Africa, small-scale livestock farmers are observing declining livestock growth rates, decreasing livestock weights, reduced milk production, lower reproductive rates, increased occurrences of parasites and diseases, increased poor vegetation and limited pasture (veld), scarcity of water resources, increased livestock deaths and loss of farm income (Popoola et al., 2019; Naidoo et al., 2013).

Animal health is also affected. In particular, we observe increased animal fragility due to the emergence and proliferation of new diseases, resistance to treatment of certain diseases, the multiplication of internal and external parasites, as well as increased perinatal mortality. As a result, there is a general increase in mortality among livestock. In Mauritania, some herders have lost a large proportion of their animals, while others have lost all of them. In general, pastoralists are well aware of climate change and are developing resilience strategies, including destocking to reduce livestock numbers in line with reduced carrying capacity, increasing the extent and distance of travel in search of water and pasture, and diversifying livelihood options, including planting crops and increasing other livelihood activities such as trading, changing diets from exclusive reliance on animal products to the inclusion of cereals and other plant products, allowing some of their children to migrate to urban areas and sedentarization (Kitasho et al. , 2020).

Breeders are also faced with the unavailability of water, notably the drying up or disappearance of ponds, intermittent flooding, the poor quality of surface and underground water, and difficulties in filling natural water points. All these constraints are at the root of changes to the transhumance calendar, heavy pressure on grazing areas and transhumance zones, forage malfunctions and disruptions to the biological cycles of forage crops (CNEDD, 2020).

In general, pastoralists are highly skilled at adapting to changes in the ecology, productivity and biodiversity of rangelands that occur as a result of climate change and other shocks. In Egypt, destocking to reduce livestock numbers in line with reduced carrying capacity, increasing the extent and distance of travel in search of water and pasture, diversifying livelihood options, including planting crops and increasing other livelihood activities such as trading, changing diets, allowing some of their children to migrate to urban areas and sedentarization are some of the climate change adaptation strategies reported by pastoralists (Kitasho et al., 2020). In Ethiopia, pastoralists are adapting to new economic opportunities and better access to modern means of communication. In Niger, Mauritania, Burkina Faso and Nigeria, the various vulnerability and adaptability factors of these pastoral societies have long incorporated mobility into their lifestyles as a strategy for adapting to the hazards and variability of natural resources. This mobility is based on a network of relationships and agreements that constitute the social capital of pastoral communities. Practices implemented by pastoralists in South Africa in the face of climate change include modifying grazing routes, increasing grazing distances, destocking, collecting and storing water, and increasing welfare dependency (Popoola et al., 2019; Kimaro et al., 2018).

3. Best Practices

At the end of the synthesis, a set of good practices were identified in favor of both small-scale agriculture and pastoralism

Table 1. Best practices for small-scale farming

THEMES	COUNTRIES	ACTIONS AND BEST PRACTICES
Financing and support	South Africa	Rural microfinance to support small-scale farmers to integrate national and international markets, in particular through the production of high-value-added cash crops
	Egypt	Exemption from farmland tax: an important benefit for farmers with fewer than three feddans Subsidized loans and fertilizers for small farmers and farmers in general in Egypt
	Ethiopia	State financing for small farmers, which has enabled them to increase their resources and technologies, as well as their means of marketing th eir products. Access to research-based information and technology, increased supply of industrial and export crops, and rehabilitation and conservation of the natural resource base have all helped increase smallholder productivity.
Texts and laws	South Africa	Land Security Act of June 30, 1998, with recognition of community members' ownership of land and the use of most land in tribal communities in accordance with the traditional communal system
	Burkina Faso	Land ownership laws providing a legal basis for securing the land rights of rural stakeholders, including women and herders
	Egypt	Laws on agricultural insurance (loss of agricultural production, sustained loss, loss of agricultural products, loss of income from agricultural products, etc.) and pension schemes for farmers.
	Ethiopia	Decentralization law of 1991 and transfer of land management to the regional level in 1997, facilitating the registration and certification of household land holdings.
	Mauritania	Agropastoral Orientation Law drafted and adopted in December 2012 to determine the policy orientations constituting the reference framework for agricultural development (plant and animal production).
	Niger	Ordinance n°83-127 of June 5, 1983 on land and property reorganization, which recognizes and guarantees private land ownership, and abolishes traditional land tenure.
		Land-related legislation and regulations: environmental code, pastoral code, forestry code, water code, law on participatory oasis management and its implementing decree.
		Equitable promotion of the potential and position of women and men within the household economy and the market economy.
	Nigeria	A law providing for the registration of rural land using the instrument of customary certificates of occupancy, which are supposed to be issued by governments to provide security of tenure for small-scale farmers.
		Climate Change Act, providing a framework for climate action at national level
	South Sudan	Land Law giving authority for land administration in rural areas to community leaders
	Tunisia	2009 Land Law which pursues the objectives of resolving land disputes; guaranteeing equal rights; recognizing customary laws and practices; establishing an efficient and adapted land administration system; promoting a land tenure system favorable to investment opportunities and development; facilitating the reintegration and resettlement of those affected by civil war; promoting an environmentally friendly land management system; guaranteeing fair and prompt compensation.
	Ethiopia	Modification of farming practices to adapt to climate change by farmers: choice of crops and varieties, adjustment of cropping calendars and moisture conservation practices such as minimum tillage, irrigation and mulching.

THEMES	COUNTRIES	ACTIONS AND BEST PRACTICES
Practices and techniques	Egypt	Application of two property registration systems: a title registration system and a deed registration system.
	Ethiopia	Modification of farming practices to adapt to climate change by farmers: choice of crops and varieties, adjustment of cropping calendars and moisture conservation practices such as minimum tillage, irrigation and mulching.
Policies and programs	Burkina Faso	National action program for adaptation to the variability and effects of climate change
	Egypt	National policy to support small-scale farming through the passage of the Agrarian Reform Act in 1952, which limited the upper limit of farmland ownership and freed up large areas of farmland for redistribution to landless farmers and poor social groups. Health insurance programs for farmers
	Niger	Regional Program to Improve Agricultural Productivity in West Africa, with positive discrimination against women, reaching 43% of women and improving their productivity and income in the region.
		National Gender Policy for the equitable promotion of the situation and social position of women and men within the family and the community in Niger.
		National strategic framework for the promotion of youth entrepreneurship, which aims to foster access by young people of both sexes to decent, sustainable and quality business creation and self-employment opportunities, in order to reduce poverty in Niger.
		Land Policy adopted in 2021 to make rural land a powerful lever for the country's economic and social development through modernized, integrated, accountable and effective land governance, ensuring sustainable land management, equitable and non-conflictual access to land and renewable rural natural resources, and securing legitimate land rights for vulnerable rural operators (women, young people, people with disabilities) in Niger.
		National policy on climate change, with the aim of contributing to sustainable development by reducing the negative impacts of climate change.
	Nigeria	Return to land policy for self-sufficiency in food production
		New Nigerian agricultural policy for self-sufficiency in basic food supplies and the achievement of food security through the introduction of improved seeds and recognition of the potential of small-scale farmers in Nigeria
		A policy of promoting Nigerian agriculture to remedy shortfalls in local food production for domestic consumption and to stabilize export crop production in the long term.
		Decentralization policy that confers authority on the Governor of the State, who in turn delegates this authority to the Commissioner of Lands.
	Mauritania	National mobilization initiative to promote agriculture
	South Sudan	National adaptation plan aimed at establishing a strategy for adapting to climate change and reducing the vulnerability and variability of communities in the face of climate change.
		Use of ordinary, but scientific mechanisms in the face of climate change: conservation tillage to increase the quantity of plant material returned to the soil, crop rotation to manage soil nutrients and improve soil quality, appropriate tools that do not cause erosion, manure to improve yields, appropriate species for pasture management.

Table 2. Good practices in favor of pastoralism

THEMES	COUNTRIES	ACTIONS AND BEST PRACTICES
Texts and laws	Burkina Faso	Orientation Law on Pastoralism, which sets out the principles and procedures for the sustainable, peaceful and integrated development of pastoral, agropastoral and sylvopastoral activities.
	Niger	Rural Code and incorporation of provisions relating to pastoralism, guaranteeing herders' right of access to natural resources and the use of areas reserved for rangelands, pastures and grazing.
		Complementary ordinance adopted for pastoralism, with real progress achieved through: i) recognition of pastoral mobility as a fundamental right of herders, nomadic and transhumant pastoralists; ii) consecration of the public domain status of pastoral resources; iii) prohibition of any form of exclusive appropriation of pastoral space belonging to the public domain of the State or local authorities in Niger.
	Nigeria	National Environmental Regulations in 2009 to regulate how landowners or occupiers use land in watersheds, mountainous areas, hills or catchment areas, including grazing reserves
		Laws establishing grazing reserves in several northern states (Kaduna, Katsina, Plateau State)
Projects and programs	Burkina Faso	Sub-regional projects implemented to improve transhumance practices
	Ethiopia	2015 Livestock Master Plan, which recommends promoting herd mobility as a strategy for utilizing temporal and spatial variability in forage availability
	Niger	National livestock development policy to rehabilitate the pastoral zone, increase its productivity, ensure complementarity between livestock and agriculture, preserve the purchasing power of livestock farmers and the reproductive potential of the herd.
		Sustainable Livestock Development Strategy - 2012-2035 to improve animal health and guarantee the quality of foodstuffs and livestock products, ensure consistent livestock production and correct product valorization, and ensure the steering and management of the sector by the ministry.
		National Action Program for Adaptation to Climate Change, with a focus on promoting strategies to prevent, mitigate or manage adverse effects in the livestock sector.
		Equitable promotion of the potential and position of women and men within the household economy and the market economy.
Techniques and practices	South Africa Rep.	Modification of grazing itineraries, increased grazing distances, de-stocking, water collection and storage
	Burkina Faso	Synergy between pastoralist organizations (APESS, CRUS, RECOPA, RBM, etc.), local authorities and state services to create a favorable environment for beneficial pastoralism, using existing texts and laws in this field.
	Egypt	Adaptation strategies to climate change reported by pastoralists: reduction in the number of livestock in line with carrying capacity, longer journeys in search of water and pasture; diversification of livelihood options (farming, trading, etc.); change in diet; migration of young people to urban areas and sedentarization.
	Ethiopia	Facilitation of resource ownership and management, including grazing, conflict resolution, wealth sharing and redistribution, and governance by traditional pastoralist institutions and organizations that guide pastoral production and the way of life to be maintained.
	Niger	Delimitation and protection of pastoral enclaves, passage corridors or grazing areas for livestock in agricultural zones, and access to water.

Techniques and practices	**Nigeria**	Improve fodder production and conservation, drill more wells and diversify livelihoods.
	Mauritania	Compulsory vaccination campaigns and establishment of genetic improvement farms, in particular for local dairy cows crossed with exotic breeds (Holstein, Montbéliard, Tarentaise).

4. Main Conclusions

4. 1. Conclusions for all nine countries

In all the nine countries studied, small-scale agriculture remains the basis of food and nutritional security, as well as of livelihoods. In addition, through cash crops such as cotton and coffee, it provides an export base for the countries' trade. This activity still accounts for well over 70% of each country's population. Recent agricultural production in all countries has made some progress, but it still needs to be transformed. Indeed, it is still necessary to increase the productivity of small-scale agriculture, while increasing its resilience in the face of climate change. Similarly, small-scale livestock farmers make a significant contribution to food security in their countries, by supplying local markets with sustainably produced animal-based foods. In all countries, pastoralism is mostly practised extensively in sedentary, semi-transhumant or nomadic systems, with little intensification or supplementation. For nomadic and transhumant pastoralists, their livelihoods, customs and traditions are under increasing pressure from land encroachment linked to agricultural development and urbanization, the deterioration of rangelands and desertification, largely due to overgrazing and climate change. In response, the mobility of animals through transhumance and nomadism is a ofactor in mitigating threats.

Despite the contribution of small-scale farmers and herders to national and regional food security, the economy, rural incomes, spatial planning and the conservation of local knowledge, we note that both small-scale agriculture and pastoralism rely essentially on family labor and are therefore unprofessional in terms of remuneration. These activities are confronted with the effects of climate change, with irregular rainfall, pockets of frequent drought, flooding, unpredictable onset and cessation of rain, increasingly violent winds, and increasingly hot and variable temperatures. As a result, water resources are becoming increasingly scarce, and pastures and soils are deteriorating, affecting crop and livestock productivity. Added to this are socio-economic constraints such as poverty, illiteracy, conflicts over land, agro-pastoral land and already degraded resources, lack of market information, prohibitive input prices and technical difficulties (archaic tools, failure to follow technical itineraries, insufficient means of transport, etc.). As a result, in all the countries, we are witnessing recurrent situations of food insecurity, child malnutrition, poverty and insufficient community resilience - particularly among women and young people, despite the many efforts of the State, local authorities, technical and financial partners and the rural populations concerned.

Small-scale farming and pastoralism are supported by national and international public policies. Although public policies have always shown the need to take their specifications into account, the measures implemented do not seem to be attainimg the desired objectives.

4. 2. Country-specific conclusions

In Burkina Faso, South Sudan and Niger, the security crises in these countries and in the sub-region are affecting small-scale farming and pastoralism, with problems of access to resources, inputs and markets, as well as the management of displaced populations in their host environments.

Small-scale Egyptian farmers use subsidized inputs for sustainable intensification of crop production. However, the food and nutritional security of these smallholders is threatened by increasing levels of plot fragmentation due to social and religious inheritance norms. Added to this is increased demographic pressure on land and water resources, due to the "youth bulge" in the country's population structure.

In Ethiopia, as little attention is paid to pastoralism, pastoralists' ability to adapt to climate change and other uncertainties has deteriorated over time. Yet, pastoral areas account for around 2/3 of the country's land resources and provide a livelihood for 12-15% of the population. In pastoral communities, the lack of adequate knowledge, financial and political support are also the main reasons contributing to pastoralists' low adaptive capacity.

In South Africa, pastoralism is less affected by economic risks and constraints. On the contrary, it has the potential to diversify food production and help reduce a country's dependence on imports. On the other hand, it faces environmental constraints that threaten the well-being of pastoral communities and their livestock, such as uncontrolled livestock diseases, inter-community cattle rustling, relatively unfavorable agricultural conditions and lack of institutional support for pastoralism.

5. Main Recommendations

5. 1. Recommendations common to all countries

- Standardize the definition of small-scale farming and make it legally explicit, in order to better understand the situation and improve statistics specific to this activity;
- Develop, through a participatory process, a vision of small-scale agriculture and pastoralism, from which a strategy, strategic orientations, objectives, programs and operational measures should be derived;
- Use a holistic approach to the food system, encompassing all players and their activities in the various links of production, processing, distribution, consumption and protection in an integrated agriculture-livestock system;
- Integrate equality between men, women and young people in the preparation, design, implementation, monitoring and evaluation of development policies, projects and programs;
- Produce statistical data on the contribution and participation of women and young people in small-scale agriculture;
- Provide training, education and capacity-building for farmers, herders and technicians, and disseminate information on climate-smart agriculture and pastoralism to (i) adopt efficient practices such as improved soil, water and agronomic practices; (ii) increase the adoption of relevant irrigation technologies; (iii) improve crop breeding (such as the use of drought-resistant varieties); and (iv) generalize the use of early warning and hydrometeorological information to improve farm productivity and resilience;
- Support the production, dissemination and implementation of research findings concerning the impact of climate change on smallholder production, productivity and livelihoods, as well as feasible solutions adapted to each situation;
- Support an enabling environment for investment in basic infrastructure, services and facilities, such as innovative ICT and microfinance options, including fair market remuneration that are favorable to pastoralism, food and trade policies, rural-urban linkages and investments;
- Support the sedentarization of herders through the demarcation and development of grazing areas, livestock tracks (local and regional transhumance corridors) and the securing of herders' settlement areas;
- Improving access to infrastructure to ensure the sustainability of agro-pastoral systems, by increasing the number of pastoral boreholes, developing ponds and watering points for herds, improving vaccination parks, and supporting the improvement of local veterinary health services through the installation of young veterinarians, the creation of slaughterhouses that meet hygiene standards and improve conditions for transporting carcasses to the point of sale, support for the creation of local infrastructure management committees (pastoral boreholes, ponds, water points, vaccination pens, slaughterhouses);
- Facilitate access for women and young people to land, agricultural technologies and financial services, and develop strategies for rural job creation that take into account the interests of these categories. Similarly, women and young people should be encouraged to form cooperatives, by introducing significant incentives and positive discrimination in their favor;
- Strengthen rangeland mapping and management, as well as institutional governance at local and sub-regional levels, to minimize the negative effects of pastoralism;
- Amplify relationships with governments, regional and international institutions to support access to resources in order to examine land rights, climate change, livelihood diversification options ;
- Improve soil quality and restore degraded and marginal lands, rather than expanding cultivated land through deforestation into pastoral areas;
- Support the creation, training and coaching of committees for the prevention and management of land and agro-pastoral conflicts;
- Set up a system to monitor the applicability of texts and laws voted by each country in favor of small-scale farming and pastoralism;
- Evaluate the adequacy between projects and programs in favor of small-scale agriculture and pastoralism and the reality on the ground;
- Support the zoning of grazing areas and the restoration of landscapes through fodder crops in order to reduce agropastoral conflicts;

5. 2. Country-specific recommendations

The following table lists country-specific recommendations.

Table 3. Country-specific Recommendations for small-scale farming

COUNTRIES	RECOMMENDATIONS
South Africa	Redistribute land so that small farmers can access larger areas for cultivation. Provide loans to help farmers obtain inputs and feed supplements for livestock.
Burkina Faso	Develop better spatial coherence between the agricultural and pastoral sectors, so as not to further disrupt the mobility of pastoral livestock due to crisis-related displacement.
Egypt	Train agricultural practitioners, scientists and extension staff in sustainable agriculture and agroecology; Accelerate land ownership registration for smallholders and large-scale commercial farmers to stimulate investment and increase productivity.
Ethiopia	Activate and enshrine property rights provisions for all Ethiopians and establish an integrated land administration and governance system.
Mauritania	Reform land policies, strengthen formal land rights, including those of women, secure land titles and support inclusive land management and conflict resolution mechanisms at local level as a basis for increased investment and productivity of cultivated and pastoral land; Facilitate the supply of fertilizers and promote efficient distribution by the private sector; Build up large reserves of strategic cereals, set up food crisis management systems and efficient food storage systems; Develop and strengthen agroforestry value chains; Develop efficient irrigation systems and water harvesting practices.
Niger	Train producers in soil fertility management, crop protection and production inputs (improved seeds); Organize market garden producers to facilitate access to inputs and markets.
Nigeria	Ensure a regular and timely supply of inputs to small farmers and encourage private sector participation; Support the facilitation of credit transfer from formal institutions through microfinance institutions to improve small farmers' access to agricultural credit; Sensitize and enlighten small farmers on the availability of institutional agricultural credit and on how to obtain agricultural loans, as well as on agricultural technology tools and innovation for information gathering and good agricultural production. Encourage farmers and pastoralists to rediscover complementary livelihoods.
South Sudan	Protect the land rights of smallholders and women.
Tunisia	Create a specific institutional mechanism for small-scale farming; Improve access to credit for small farms; Give priority to small farms in public procurement; Develop short circuits and reduce the number of intermediaries between producers and consumers. Create greater visibility and social acceptance for women, and provide them with training in management and adaptation to drought.

Table 4. Country-specific recommendations for pastoralism

COUNTRIES	RECOMMENDATIONS
South Africa	✍ Increase the recognition and importance of pastoralism, its contribution to local and national societies through the production of data to better inform policy and the development of evidence-based policies; ✍ Adopt policies that promote the mobility of pastoralists, genetic improvement, their systematic integration into commercial value chains and the traceability of animal resources; ✍ Systematically eliminate undesirable plant species (e.g., through mechanical, chemical and biological control methods); ✍ Sow desirable plants that compete with undesirable species; ✍ Equip pastoral communities with tools such as rotational grazing or prescribed burning to restore soils.
Burkina Faso	✍ Develop better spatial coherence between the agricultural and pastoral sectors, so as not to further disrupt the mobility of pastoral livestock due to crisis-related displacement.
Egypt	✍ Subject the newly-developed sustainable pasture management policy to extensive and thorough participatory reviews before submission to parliament.
Ethiopia	✍ Proactively develop policies and strategies based on local customs and practical knowledge of pastoralism; ✍ Review and discuss the policy of sedentarization of nomads; ✍ Involve pastoralists themselves in policy-making processes that affect their livelihoods.
Mauritania	✍ Develop national programs to diversify agricultural production, including the development of small-scale livestock farming in vulnerable areas; ✍ Strengthen involvement in animal production, marketing and processing (production, commercialisation, transformation…) ; ✍ Develop local animal health services; ✍ Involve livestock farmers and their organizations more closely in national consultation forums;
Nigeria	✍ Supply affordable animal-based foodstuffs to the growing population; ✍ Facilitate genuine intergenerational dialogue within families and pastoral communities.
South Sudan	✍ Define a severe and progressive strategy to eradicate inter-ethnic skirmishes linked to livestock theft in grazing areas.
Tunisia	✍ Adopt new approaches to territorial and pastoral planning involving professional organizations and sectors; ✍ Rethink pastoral improvement policy, taking into account the multifunctionality of rangelands and the need to reduce pressure on pastoral resources; ✍ Reform land legislation to ensure the multifunctionality of rangelands and guarantee the sustainability of the pastoral ecosystem; ✍ Assign responsibility for the development of collective and private rangelands to a single public institution, and introduce new forms of governance that emphasize the contractual aspect and directly involve local communities.

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Appendices

Appendix 1. International and regional co-operation in support of small-scale farming

International actors support individual countries in their advocacy of an inclusive development agenda, and apply context-specific approaches to development and land reform that are sensitive to international development standards and the human rights supported by small-scale farmers. We have:

- **The AU[1] -ADB[2] -ECA[2] Consortium** in collaboration with the regional economic communities have launched an initiative on land policies in Africa to help African states develop land policies that can contribute to economic development, poverty reduction and peace-building. These initiatives are complemented by the drafting of land benchmarks and indicators, as recommended in the Framework and Guidelines on Land Policy in Africa approved by the AU;
- **The ADB, the Nigeria Trust Fund, the Mauritanian and Tunisian governments** have supported the improvement of food security and living conditions for target populations through the inclusive and sustainable development of agricultural sectors;
- **The World Bank** supports irrigation through CILSS[4] projects, helps strengthen smallholder organizations in Nigeria, and supports the agricultural sector through several irrigation and biodiversity preservation projects in Tunisia;
- **USAID** has supported the agricultural sector in Egypt over the past three decades to extend credit to small farmers, improve irrigation systems and water use efficiency, and increase farmers' productivity and incomes (USAID 2004; USAID 2010a; USAID 2010b);
- **IFAD[5]** has financed projects to improve agricultural production and poverty reduction in areas of old and recent settlement, with a strong gender component, and to increase water use efficiency and agricultural production on small farms in Egypt (IFAD 2007; IFAD 2010). In Mauritania, with the OPEC Fund for International Development, it financed the "Project for sustainable management of natural resources, communal equipment and structuring of rural producers";
- **Austrian Development Cooperation Agency** has financed the Localized Irrigation and Agricultural Resilience Project in Burkina Faso (PIRA-BF), which targets vulnerable women farmers and displaced persons;
- **In Burkina Faso**, the Coalition for Rice Development in Africa financed a program to support small-scale agriculture in a context of climate change, which was supported by a small-scale village irrigation development program from 2011 to 2015;
- **The World Bank**, in collaboration with the FAO, is supporting Burkina Faso's national rural sector program and Tunisia's Irrigated Agriculture Intensification Project;
- **GIZ** has financed the Smallholder Sustainable Agribusiness Project and other farmer needs quantification projects in Nigeria. In Tunisia, it has implemented a program to promote employment and income in small and medium-sized farms, as well as cooperation within farmers' organizations and the use of innovations for the benefit of small farmers and SMEs;
- **The FAO** has financed numerous initiatives aimed at improving economic and social outcomes for small-scale farmers on sustainable development goals in South Sudan and Tunisia;
- **AFD's** operations in Tunisia [6]focus on modernizing the agricultural sector (boosting investment and modernizing farms, creating support units staffed by agricultural engineers and modernizing farms);
- **The Swiss State Secretariat for Cooperation** has financed the development of agri-food value chains, the promotion of origin-linked quality labels and marketing to ensure the influence of local products on national and international markets;
- **Italian Agency for Development Cooperation** has supported the development of sustainable agri-food micro-enterprises and the creation of employment opportunities in disadvantaged areas of Tunisia;

All the countries studied are involved in co-operation under the auspices of various pan-African and international organizations. However, there is little "cooperation in the areas of migration, pastoral movements, refugees and pressures on transboundary resources (soil and water degradation, desertification and deforestation)" as suggested by the Framework and Guidelines on Land Policies in Africa (AUC-ECA-ADB, 2010).

[1] *African Union*
[2] *African Development Bank*
[3] *United Nations Economic Commission for Africa*
[4] *Permanent Inter-State Committee for Drought Control in the Sahel*
[5] *International Fund for Agricultural Development*
[6] *French Development Agency*

Appendix 2. International and regional co-operation in support of pastoralism

Several international organizations are supporting the nine countries in pastoralism through international projects, conventions and partnerships. In practical terms, the implementation of this international co-operation has led to the execution of numerous projects and programs in the field, led by governments, their technical and financial partners, and local and international NGOs, with the active participation of local authorities and grassroots stakeholders. As a result, major national and regional projects to support pastoralism are being implemented in various countries. However, the cross-cutting nature of these projects has enabled several countries to benefit from the same project within the framework of regional and international co-operation. These organizations include

- The National Rural Sector Program, which implements Directive 06 2009/CM/UEMOA, which provides for the introduction of program budgets in UEMOA countries;
- The second phase of the World Bank-supported Regional Supprt Project for Sahelien Pastoralism (2022) in Burkina Faso, Niger, Nigeria and South Sudan;
- The development of the Policy Framework for Pastoralism in Africa by the African Union to secure, protect and improve the lives, livelihoods and rights of African pastoralists (African Union, 2013);
- Support for pastoralism by the European Commission to enhance the value of arid and semi-arid lands;
- Pastoralism-related policies developed by the AU, IGAD[7] and EAC[8] to address the challenges of pastoralism as a production and livelihood system, promote and strengthen pastoralism by addressing land and natural resource governance, livestock disease control and trade, disaster risk management, climate change and conflict (African Union, 2017) ;
- Regional and international partners such as the EU, World Bank, ADB, IFAD and FAO, as well as bilateral co-operation agencies including AFD, USAID or GIZ, have worked in the pastoralism sector in African countries. The following actions have been carried out: strengthening the institutional and organizational capacities of state agents, administrative and customary authorities and rural communities; pastoral development, security, access and resilience of pastoral systems; and improving animal health. These actions have had a positive impact on the resilience of pastoral societies through land legislation and measures to secure and manage pastoral natural resources in a concerted and equitable manner.

[7] *Intergovernmental Authority on Development*

[8] *East African Community*

Published by

Strengthening Advisory Capacities for Land Governance in Africa (SLGA) Programme

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Responsible

Strengthening Advisory Capacities for Land Governance in Africa (SLGA) Programme
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Design/ Layout

Flow communications

As at

February 2025

Authors

Implemented by