



SPARC

Supporting Pastoralism
and Agriculture in Recurrent
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REPORT

FINANCING LIVESTOCK TRADE: FORMAL AND INFORMAL FINANCE IN KENYA, MALI AND SOMALIA

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ACRONYMS

AP	Arabian Peninsula
ASAL	Arid and semi-arid lands
ATM	Automatic teller machine
BCEAO	Banque Centrale des Etats de l'Afrique de l'Ouest / Central Bank of West African States
CAECE	Caisse Associative d'Épargne et de Crédit des Entrepreneurs et Commerçants / Association of Savings and Credit for Entrepreneurs and Traders
CGAP	Consultative Group to Assist the Poor
CICO	Cash-in/cash-out network
DFS	Digital financial service
DID	Développement international Desjardins
DIRISHA	Drought Index-insurance for Resilience in the Sahel and Horn of Africa
ECA	Economic Commission for Africa
EVC	Mobile money service, Somalia
FARM	Financement agricole et rural au Mali

FCFA	Franc CFA (Communauté financière d'Afrique); FCFA 656 = €1, to which the franc is pegged
FGD	Focus group discussion
FISO	First Somali Takaful & Re-Takaful
G	Billion (10 ⁹ , giga)
GAB	Gulf African Bank
GDP	Gross Domestic Product
GEEL	Growth, Enterprise, Employment & Livelihoods programme, Somalia
ICPALD	IGAD Center for Pastoral Areas and Livestock Development
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
INCLUSIF	Inclusive Finance in Agricultural Value Chain Project, Mali
k	Thousand (10 ³ , kilo)
KEMLEIC	Livestock Exporters Industry Cooperative, Kenya
KII	Key informant interview
KLMC	Kenya Livestock Marketing Council
M	Million (10 ⁶ , mega)
MFI	Microfinance institution
M-PESA	A mobile banking service in Kenya
MTB	Money transfer business
NAYRAL-NEF	Neyral (Nayral) – Near East Foundation, MFI, Mali
NGO	Non-governmental organisation
PSP	Payment Service Provider
RoSCA	Rotating savings and credit association
SCALED-UP	Somalia Capacity Advancement, Livelihoods and Entrepreneurship, through Digital Uplift Project
SCORE	Somali Core Economic Institutions and Opportunities Program
SHG	Self-help group
SME	Small and medium enterprise
SMS	Short message service
SPARC	Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises
TIA	Takaful Insurance of Africa
US\$	US dollar
VSLA	Village savings and loans association

SUMMARY

Highlights

- Marketing livestock from the drylands of Africa is a growing business that benefits herders, traders and consumers.
- Providing formal financial services in rural Africa has proved difficult. Is that the case for livestock traders? We interviewed 30 livestock traders and spoke to 17 key informants in Kenya, Mali and Somalia to get their insights.
- Traders overwhelmingly financed their livestock trading with informal finance: savings and accumulated profits, help from family friends, the occasional personal loan from a trader in the marketing chain. The only formal financial service commonly used was making payments by mobile phone.
- It is not clear that livestock trading is limited by lack of capital. The key to successful trading is prompt, informed and experienced response to the many fluctuations in the supply of livestock arising from seasonality, drought, conflict and so on. Social capital, rather than financial capital, is critical to this – traders need trusted personal contacts on the ground.
- Funding public investments in livestock routing, water points, and loading ramps at markets, may be higher priorities than finance for private business.

Overview

Motivation

Africa's drylands are largely used by herders who produce livestock in extensive systems involving nomadism or transhumance. Part of their income comes from selling livestock to consumers in distant cities. Because demand for red meat is rising with population and income growth in Africa's cities, marketing pastoral livestock is a growing business.

Business requires capital, at the very least working capital. This study concerns the degree to which formal financial services – savings, payments, credit and insurance – are used by traders marketing livestock from the rangelands.

It does so to explore aspects of the development of formal financial services in the drylands. It does so set within the general understanding that developing such formal services in the rural areas of the global south is challenging, as seen in the often limited degree to which farmers, herders and other rural people make use of formal finance. High transaction costs between banks, and other financial agencies, and potential rural customers explains in large part why so few rural residents are included in the formal financial system.

For at least 40 years, development agencies – central banks and other public agencies, development partners, NGOs, etc. – have been striving to overcome these high transaction

costs and to provide better financial services in rural areas. Models of microfinance, such as the Grameen Bank, have attracted much interest and imitation; so too has agency banking; and so too, more recently, has the arrival of mobile phones with their ability to make electronic payments. But, still, the large majority of rural people in the global south do not use banks or their equivalents to manage their savings or to obtain credit. This applies all the more so in the remote drylands, where services of all kinds tend to be scarce.

Objectives and methods

This study was designed to explore the state of financing livestock marketing from the drylands, and how this has changed in the new century. We selected three countries to study: Kenya, Mali and Somalia.

All three countries have substantial rangelands and a large pastoral livestock sector. Kenya has seen many initiatives to increase formal financial services through mobile payments, agency banking and index-linked insurance. Mali developed considerable microfinance provision in rural areas in the 2000s. The Somali economy depends considerably on livestock, including a thriving export trade to Saudi Arabia and the Gulf. Due to conflict, formal financial intermediation has had to adapt and innovate to provide any services at all.

This study addresses the following questions:

1. How is livestock marketing financed in the drylands of Mali, Kenya and Somalia? How has this changed in the last twenty or so years?
2. From where do traders, and others in the marketing chains, obtain capital?
3. To what extent do traders use formal financial services for savings, credit, payments and insurance?
4. What are the implications for the understandings of formal finance for livestock marketing in further research and policy?

Data were collected from:

- a review of the existing literature for the three countries on inclusion in formal financial services, and on livestock production and marketing;
- interviews by phone and Zoom with people knowledgeable about livestock marketing in the three countries, both those based within those countries, as well as international scholars and managers of development programmes concerned with livestock marketing and finance. Interviewees were asked either about their perspectives on the research questions listed above, or for project staff, what they were doing and what they had learned from their practice; and,
- interviews by phone with livestock traders and other business owners in the livestock marketing chains of the three countries. Interviews were semi-structured concerning the traders' businesses, their use of formal finance and changes seen over the last 20 or so years.

In all we interviewed 30 traders and business owners, and 17 key informants across the three countries.

The data collected were analysed largely qualitatively, reading notes from the literature and interviews to identify points of similarity and difference with respect to the questions addressed.

This study was carried out rapidly. Most of the data were collected and all the interviews were carried out between September and November 2021. The time allowed and resources for the study were a limitation – this is very much a preliminary examination of the subject.

Findings

Livestock marketing chains in all three countries consist of multiple channels that connect different production areas to local, regional, national and export markets. Much labour is employed as animals are collected from herders in small numbers by local agents, then sold to traders who aggregate livestock until they form sufficiently large mobs to transport or trek to distant markets. The chains function with little state regulation and with no overall planning: each collector or trader or transporter in the chain deals with their own part of the chain, relying on information from markets and from their social contacts to decide what they do. In this respect, the chains may be seen as informal.

The chains have evolved to be flexible, accommodating to a supply of livestock that fluctuates, owing to variations that can reasonably be foreseen (for example, seasonal differences in vegetation and extra demand for meat for festivals) and those that are more difficult to predict (such as droughts and outbreaks of violence). Those in the chain have to think on their feet, reacting promptly to changes in supply and demand. This can make marketing look chaotic, tempting some to see the chains as inefficient. The reality is otherwise: studies usually show traders' margins to be modest.

By all accounts, livestock marketing appeared to be good business. In all three cases, demand for meat was growing both in national markets as well as in neighbouring territories, with large-scale exports from Mali to surrounding coastal countries and the lively trade in animals from the Horn across the Red Sea to Saudi Arabia and the Gulf states.

Most **financial services in rural areas** in the three countries are informal. Capital comes from savings, from loans and gifts made within families, within circles of friends, and with close and trusted business partners.

Banks, microfinance agencies and financial cooperatives are little used in rural areas. Financial agencies know too little about potential customers. They are deterred by customers who often want to transact very small amounts and whose businesses – especially farming and livestock rearing – are seen as risky. Inclusion in formal finance is thus low.

Payments made through mobile phones are the only notable exception. Mobile payment systems simplify transfers of money that people have long been making. Financial intermediation is not usually deepened, even if providers of mobile services are expanding to offer more sophisticated financial services, such as savings, insurance and even (small) loans.

Trading livestock largely requires working capital to buy animals that will later be sold on, and/or possibly fattened. Interviews with traders showed that very few took loans from formal financial intermediaries for their working capital.

Instead, they started their trade with their savings, sometimes topped up by help from family and friends. They built their enterprises by reinvesting profits. At times, they were lent funds by larger traders along the chain. Most traders had a long history of trading: usually more than ten years, often more than twenty.

Few had ever taken formal credits, and fewer still used such credit regularly. Those that did get formal loans, blended this with their other funds; the formal loans supplemented rather than replaced informal sources.

Some traders did not even want formal credit; they saw procedures and conditions as onerous, and interest rates as exorbitant. This may have masked a greater concern about the risks they took. Losing their own savings would be a misfortune, but one from which they could recover. Losing money borrowed from a larger trader might be embarrassing, but the lender has every incentive to keep the borrower in business if they ever want to see their money again. (And larger traders who know the business accept that, every now and again, money will be lost.) Banks, on the other hand, tend to be less forgiving when borrowers cannot repay, especially when the manager is urban and, in so many ways, neither knows well nor identifies closely with borrowers. The danger is that bank managers will foreclose and try to seize the borrower's assets, after which recovery may be impossible. Fearing this, traders prefer to stick to what they know: their cash flows, their savings and the strength of their social and business networks.

The sole exception to not using formal finance was the use of mobile phones to make payments. This had the great advantages of removing the need for an extra journey to make a payment, as well as the risk of being assaulted along the way. Even so, some traders were not convinced, several fearing that a clumsy keystroke could lead to losses.

Many findings were common across the three countries, despite the great distance between Mali and the others. A few differences were apparent. For example, livestock marketing chains originating in Mali crossed frontiers into neighbouring countries more often than those in Kenya, which were largely domestic. Mali also had more livestock fattening than in Kenya or Somalia, because Mali's (large) cotton crop produced cake as a by-product, which had little or no alternative use.

Mali had seen a boom in microfinance, with many agencies set up in the 2000s, with at least half the credit destined for rural areas. But in 2012, Mali also saw a bust in microcredit that led two large agencies to collapse and almost bankrupted many others. Kenya also has lessons from microfinance: the agencies established there now struggle to compete with banks – such as Equity Bank – that have created procedures and lines of credit suitable for small, informal business.

Discussion

Is more capital needed in the marketing chains? The vast bulk of livestock marketing is financed informally, mainly through cash flows and profits. Does that limit activity? A counterfactual does not exist, but in Mali, traders told us that, if offered a credit worth US\$10,000, they would reinvest it in their business to expand operations, fatten stock, or commission exports more often. In all three countries, traders explained how they built their businesses gradually, over time. Did lack of capital delay them? Perhaps, but it could also be that traders grew their business as they came to learn their trade, or as demand rose, rather than being limited by funds from accumulated profits.



If capital was limiting, then one might expect an under-supply of meat to national markets in the three countries, manifested in notably high prices. Such high prices were not seen in Kenya and Mali – and neither, do we believe, in Mogadishu. On the other hand, some export destinations may be under-supplied; prices on offer in their terminal markets, such as Abidjan, Dakar and Jeddah, were attractive – higher than those in the exporting countries, and by significantly more than just the costs of moving livestock.

Some of our (knowledgeable) informants were wary of proposals to inject formal capital into the marketing chains. They feared it might erode the close personal relationships that allowed operations to adapt to changing circumstances and shocks; that it might encourage traders to over-extend their businesses, to take undue risks. Indeed, one interviewee wondered if tight informal finance disciplined the traders, forcing them to keep costs under control and to adapt promptly to change. To manage money in the livestock trade is to manage risk – understanding the dangers (theft, road accidents, extortion by officials, livestock illness, etc.), expecting some of them to strike from time to time, and not over-extending any one operation that might fail, leaving unsustainable losses.

If managing risks matters, would formal insurance help traders? Would insurers be interested in providing policies? Would traders appreciate a formal insurance policy? The answer may well be 'no' in both cases. For insurers, setting risk premia would be nightmarish for anyone without vast experience of livestock trading and daily engagement with its hazards; checking claims would not be easy for insurers, either. Traders, for their part, may not want to change the way they guard against hazards. At present, they keep some cash savings, or assets in livestock, for a rainy day and invest in social networks. While a premium is lost in a year without shocks, investments in friendships and business partnerships are rarely a loss; traders may not need their contacts to bail them out every year, but the close contacts they keep can help reveal business opportunities, or market information that would otherwise be impossible to know – as well as, of course, all the satisfactions that friendship can bring.

Working capital or public investments? Working capital, as argued, may not be the priority for developing the chains. Some interviewees told us that types of infrastructure – and their governance – were more pressing needs. They referred to:

- livestock migration corridors, agreed between farmers and herders, with paths marked to facilitate transhumance and avoid quarrels with farmers;
- water points open to all and equitably managed (without denying water to visiting herds); and,
- marshalling yards and vehicle loading ramps at market centres.

Those facilities, they said, would best be provided, maintained and operated by local authorities who would finance them through (small) levies on livestock using them. Not only would this align incentives with objectives, and not only would such local bodies be best placed to work out the governance of the facilities, but it would also enhance the legitimacy of local government. To realise this, would mean working alongside local governments to develop their capacity and expertise.

These investments are largely public goods that need public investment, whether that be by central or local governments, donors or NGOs, or local cooperatives or associations. Public investments do not necessarily require the wider development of rural financial services.

Priorities and risks in developing rural financial services

Even if there is no pressing need to inject more capital into livestock marketing, some issues stood out for attention.

Shocks, and the risk of potential shocks, were a recurrent theme in the interviews. Potential shocks in the drylands are several and severe, arising from drought and other bad weather (exacerbated by global heating), from animal and human disease, from political failures and subsequent violence, and from thin markets where prices can be volatile – the list is long.

This has led development partners in two potentially useful directions. One, they have explored and piloted forms of insurance, for example Kenya's index-based livestock insurance and ILRI's DIRISHA initiative for regional insurance. That said, index-based insurance has been proposed for at least twenty years across rural Africa, and pilots and trials have been running for just as long. Little or no evidence has yet been found of indexed insurance being taken up by the people it is designed to protect (farmers and herders), except when made free or heavily subsidised. Of course, that does not diminish the potential utility of insurance for governments both central and local.

Two, some agencies have looked to improve systems at local level, to inform farmers and herders, that anticipate shocks by generating more – and more timely – information to warn of likely hazards; and by creating greater local capacity to cope with shocks. In contrast to the better-known national and regional early warning systems, local systems are less visible to outsiders, less studied as well, but deserve trialling. If such schemes are designed to work so that information and capacity are co-created at village and municipal levels – the approach being taken by at least one NGO in Mali – it may prove more useful to target populations than index-linked insurance.

Formal systems for payments and remittances were valued by some of those interviewed. In Somalia, an economy unusually and extraordinarily dependent on remittances, respondents spoke of remittances dwindling either under the impact of the pandemic or because, with time, expatriate communities of Somalis felt less connected to their homeland. That, however, may be a temporary decline in the exceptional circumstances of the pandemic. Over the medium term, the volume of remittances to the global south had been rising, as ever-increasing numbers of migrants with jobs in the global north have sent more funds back to their families and home communities.

To see how many traders interviewed were using their mobiles to make payments – and how even fewer had an account with a bank or microfinance agency or were using formal credit regularly to run their business – is to appreciate that the development of rural financial services may better be served not so much by a unitary, idealised model, but more by creating an **ecosystem of finance**. This would allow users to choose from an array of services provided formally – by more than one type of agency – and informally, as users see fit. Like physical ecosystems, it would need to be able to change and evolve rather than try to provide a full, fixed range of services from the outset.

This raises a final reflection, one common when thinking about development initiatives, and that is whether progress lies in being ambitious and trying to solve knotty issues with radical solutions; or whether it lies in the accumulation of small improvements. This can be seen in **debates over the modernisation of livestock marketing**. On the one hand, analyses of livestock marketing in dryland Africa commonly lament the lack of sophistication of current chains, and the apparently low value added to the livestock before they are slaughtered. Such analyses then recommend additional investment in higher-yielding cattle, fattening of livestock, building new abattoirs with better food safety, etc.

A different perspective is that the marketing chains are well adjusted to variable supply of livestock and to demand in regional and national markets, and that the trader margins are modest to low. Better practice, in this account, lies in working with current actors in chains to make improvements at the margins, as with the relatively low-cost infrastructure already mentioned.

SECTION 1

**BACKGROUND:
WHY THIS PAPER?**



Semi-arid and arid lands (including hyper-arid zones) cover 66% of Africa (Reid et al., 2005 – Millennium Ecosystems Assessment). Most of this land can only be used by humans to graze livestock, the main exception being those small fractions of the drylands close to water sources or having readily accessible groundwater reserves below them that can be irrigated for crops. For most people living in the drylands, livestock are thus their main source of livelihood and income.

Pastoralists and agro-pastoralists in the rangelands of Africa have long developed their systems of transhumance and nomadism to make the fullest use of vegetation that varies by season and year. While scope for advances exists, especially in animal health (as pastoralists know well), greater gains may be made in the supply chains downstream of the range, where stock are transported, sometimes fattened and finished, and delivered to abattoirs close to urban consumers. More effective supply chains that reduce costs, add value and link herders to distant markets can benefit herders by increasing the effective demand and prices for stock and produce (such as milk).

Financial capital is not greatly needed in pastoral livestock production – the animals themselves constitute a living, self-producing capital;¹ but finance most definitely is needed downstream where it can pay for holding grounds, feedlots and fodder, lorries and fuel, and abattoirs. Finance – both working and investment capital – is often scarce in the livestock marketing chain. It may then be that – although it does not inevitably follow – traders and other entrepreneurs do not have the means to make the investments and technical improvements that would probably amply repay the investment – nor to do business on the scale they would like to.

Financial systems that provide safe ways of saving – that mobilise savings and direct those savings to profitable investments, and which allow payments to be made readily – take time and effort to develop in rural areas. High transactions costs between managers of banks (and similar financial agencies) and potential customers in rural areas (Box 1) have hindered the development of formal financial services in rural areas across the global south, especially in the drylands of Africa.

Livestock production and marketing in dryland Africa are far from static: they are becoming more commercialised owing to rising demand for meat and milk from cities and export markets. As commercialisation proceeds, demand for working and investment capital rises. If the full potential of livestock production from the drylands is to be realised, then it will require – among other things – more capital. And that may mean drawing more fully on the potential of formal financial systems to gather savings and direct these as capital to enterprises.

This study was thus designed to explore what the state of financing of marketing of livestock from the drylands is, and how it has changed in the new century. Three countries were selected to study: Kenya, Mali and Somalia.

All three countries have substantial rangelands and a large pastoral livestock sector. Kenya was chosen because the country has seen many initiatives to increase formal financial services through mobile payments, agency banking and index-linked insurance. As well as representing the drylands of West Africa, Mali was picked because considerable microfinance provision in rural areas was developed in the 2000s. Somalia was selected because of the overwhelming importance of livestock to the economy; the considerable export trade to Saudi Arabia and the Gulf; and the adaptations that had to be made in financial services to cope with the effects

of recurrent conflict, the volume of remittances and the difficulties of remitting, given the international controls on funds that might fall into the hands of groups seen as terrorists.

In the rest of the report, Chapter 2 sets out the objectives and methods; Chapter 3 presents the findings; and Chapter 4 concludes by recapping key points and discussing them, along with their implications for research and policy.

BOX 1: THE HIGH COST OF DEVELOPING RURAL FINANCIAL SERVICES

Formal financial services – savings, credit, payments and transfers, insurance – do not reach many rural households and businesses in Africa due to high transactions and administrative costs including:

- banks know little about their potential rural customers, above all whether they are (a) competent in managing their farms, herd and businesses; and (b) trustworthy in sticking to agreements to repay loans. Discovering the answers to these questions is not easy when few people have formal financial records or credit histories;
- banks cannot usually reduce lending risks by taking an asset as collateral against loan default since few rural people have assets that can be pledged. Land, for example, is often collectively owned rather than individually titled;
- insurance companies face similar hurdles in assessing whether people seeking insurance are careful and not reckless, and whether they intend to defraud the company by inventing fictitious claims; and,
- many potential customers in rural areas want financial services to cover very small sums so that administrative costs per dollar financed can be high.

Consequently, financial agencies either screen out and refuse to offer services to most people or charge heavily for their services – typically in interest rates set high to cover expected losses.

Would-be rural customers also face hurdles in dealing with formal financial agencies, hurdles in learning about the services on offer, in filling in forms and completing paperwork. When customers lack literacy or numeracy, when they speak a different language to bank staff, dealing with financial agencies becomes intimidating.

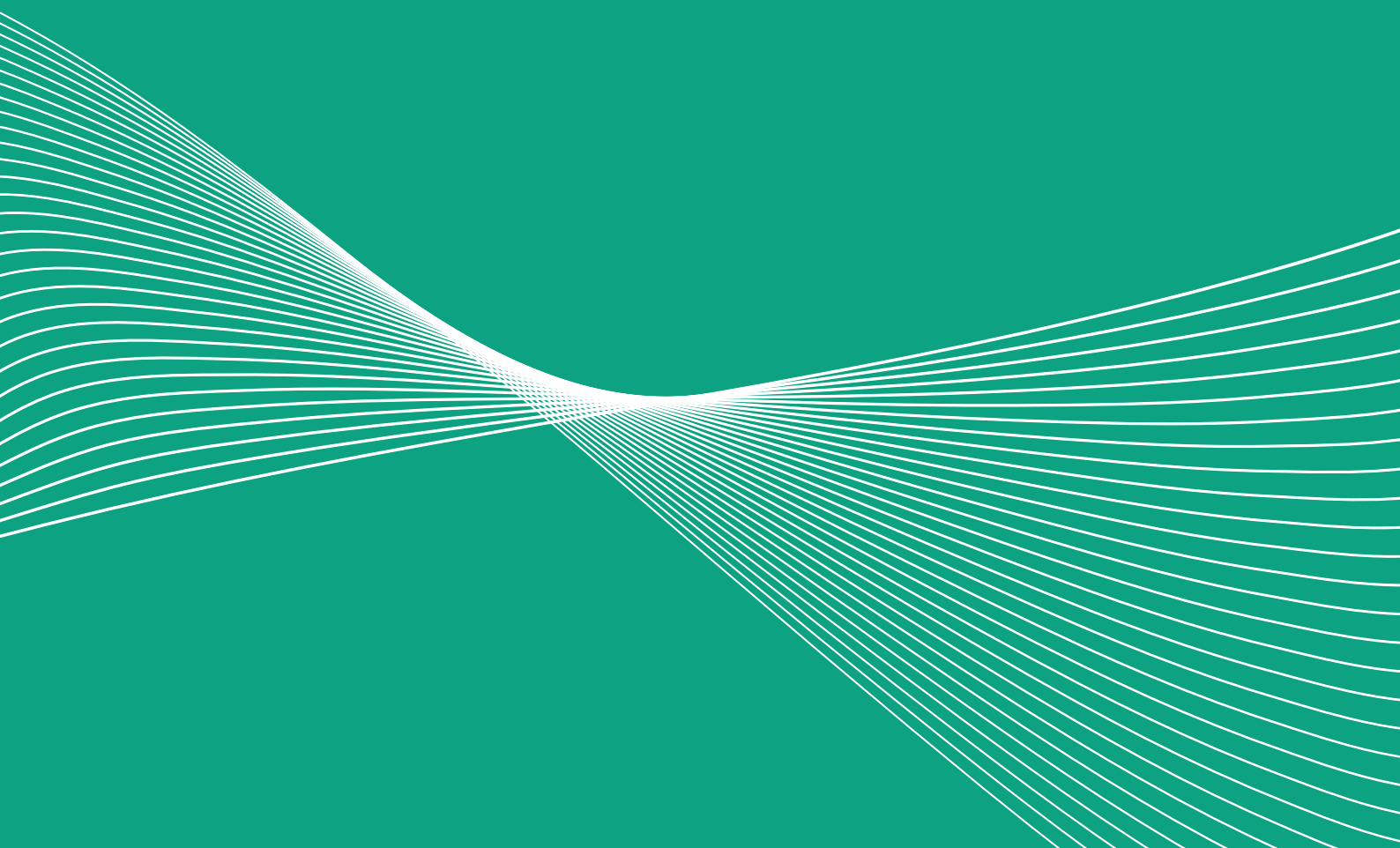
Moreover, investments in agriculture look risky to bankers. Agricultural investments take longer to yield returns than other investments, such as trading. Above all, many things can go wrong in farming and livestock keeping, because production depends considerably on nature – where hazards of bad weather, pests and diseases arise. Risks also apply in markets for farm produce, where prices may fluctuate unpredictably.

Microfinance may be able to mitigate some of the transactions costs mentioned by, for example, making small groups liable for repayments by their members and by simplifying some administrative costs – but they cannot remove all the hurdles, which is why relatively few microfinance agencies lend to farmers and herders.

Source: Meyer (2015).

SECTION 2

**OBJECTIVES AND
METHODS**



This study addresses the following questions:

- How is livestock marketing financed in the drylands of Mali, Kenya and Somalia? How has this changed in the last twenty or so years?
- From where do traders, and others in the marketing chains, obtain capital?
- To what extent do traders use formal financial services for savings, credit, payments and insurance?
- What are the implications for the understandings of formal finance for livestock marketing in further research and policy?

Data were collected from:

- a review of the existing literature for the three countries on inclusion in formal financial services, and of livestock production and marketing;
- interviews by phone and on Zoom with people who are knowledgeable about livestock marketing in the three countries – both those who are based in-country as well as international scholars and managers of development programmes concerned with livestock marketing and finance. Interviewees were asked either about their perspectives on the research questions listed above, or for project staff, what they were doing and what they had learned from their practice; and,
- interviews by phone with livestock traders and other business owners in the livestock marketing chains of the three countries. Interviews were semi-structured and concerned the business they were doing and the changes they had seen over the last 20 or so years, in addition to their use of formal finance and the changes seen there.

Key informants were chosen either for their practical experience of livestock marketing – for example, leading figures in business associations – or for the research they have carried out, or for their leadership of projects relevant to livestock development and marketing in the three countries.

The selection of traders to interview was more opportunistic and based on the personal contacts of authors Barry and Yussuf, contacts they had developed over many years of studying and working in livestock marketing.²

In all we interviewed 30 traders and business owners, and 17 key informants (Table 1).

TABLE 1: PEOPLE INTERVIEWED

	Mali	Kenya	Somalia
Traders & business owners	16	8	6
National key informants	3	2	2
International key informants	5	3	2

The data collected were analysed largely qualitatively, reading notes from the literature and interviews to identify points of similarity and difference with respect to the questions addressed.

This study was carried out rapidly. Most of the data were collected and all the interviews were carried out between September and November 2021.

Two limitations apply to this study.

- 1.** This was a rapid survey of the field designed to give an initial insight into the financing of livestock marketing. The number of people interviewed was limited, and the sampling of interviewees had to be both purposive and opportunistic. Hence the study may miss insights that would emerge from a broader and more systematic review. We may also have been unduly influenced by the experience of traders who may in some respect not be as representative as we hope. Given more time and resources it would have been good to extend this analysis to obtain the views of herders as well. We did not do that, because that would have entailed costly and time-consuming field work to meet them physically.⁹ In Mali and Somalia some areas of pastoralism are also highly insecure.
- 2.** All traders interviewed were men, except for one chairwoman of a camel milk marketing cooperative in Kenya. We believe this reflects that most actors in meat marketing chains are men in these three countries. Women may sell livestock into the chain, but they rarely – if ever – act as collectors, traders, transporters or abattoir workers in the countries studied. Women have less freedom to move than men, less access to finance than men, and are not culturally expected to undertake jobs such as driving cattle trucks or slaughtering cattle.



Woman market vendor in Baïdoia District, Somalia. Photo: P. Canton/Mercy Corps, 2017

SECTION 3
FINDINGS



3.1 CONTEXT: LIVESTOCK PRODUCTION AND MARKETING

3.1.1 Kenya

Kenya is the fourth-largest producer of livestock in Africa, with an estimated 60% of the population keeping over 67M (million) livestock across the country (KNBS, 2010). The economic value of livestock to the Kenyan economy is valued at US\$1.13G (billion), with projections of a 10% growth over the next decade (Nyariki and Amwata, 2019). Camels, cattle, goats and sheep are produced for the sale of live animals, meat, offal, milk and skins/hides, driven by domestic, regional and international end markets (Figure 1).

The arid and semi-arid lands (ASAL) of Kenya support roughly 60% of the nation's livestock and stretch across the northern, southern, eastern and coastal areas of the country. Roughly 80–90% of Kenya's red meat supply is from ASAL, with 10–15% produced in the highlands (Alarcon et al., 2017). Livestock's prominence in ASAL, and the rest of Kenya, is spurred on by the significance it holds economically, socially and culturally.

Men, women, boys and girls participate in the livestock value chain, with age and gender dictating norms around decision-making, access to markets, and the utilisation of livestock and by-products. Livestock move through distinct trade corridors that connect rural primary markets to largely domestic urban and international terminal and end markets. For this study, we concentrated on trade originating in the north-central and north-eastern ASAL through trade corridors terminating in markets in Nairobi and Somalia (Figure 2).

Livestock traders at all scales – small-scale, large-scale or terminal-market – maintain wide networks to source, move and sell animals along the marketing chain. Small-scale traders (often referred to as collectors) link producer households, mainly pastoralists and dryland agro-pastoralists, to primary and secondary markets. Traders in terminal markets, especially those in Somalia and Nairobi, benefit from reducing the number of intermediaries and so maintain networks of primary traders and large-herd owners to source animals as close to the production area as possible. Not only does this prevent any increase in price that would otherwise accrue with each change in ownership, but sourcing as close to the producer as possible and moving animals directly to terminal or end markets also reduces any additional fees and tariffs that would be charged when formal market structures are in use (Ng'askie, 2019).

Although livestock trade is often characterised as informal, animals move through degrees of informality that are governed by strong social norms and an inconsistently enforced regulatory environment, with the animals becoming more formalised as they approach large urban and export end markets that require movement permits and animal health certificates (Ng'askie, 2019). Practical norms that bridge the fluidity between informal and formal systems are critical to managing the inherent risk involved in livestock trade as well as maintaining the consistent purchasing of animals from producers for a continuous supply of live animals to end markets (ibid.).

FIGURE 1: LIVESTOCK ROUTES, KENYA



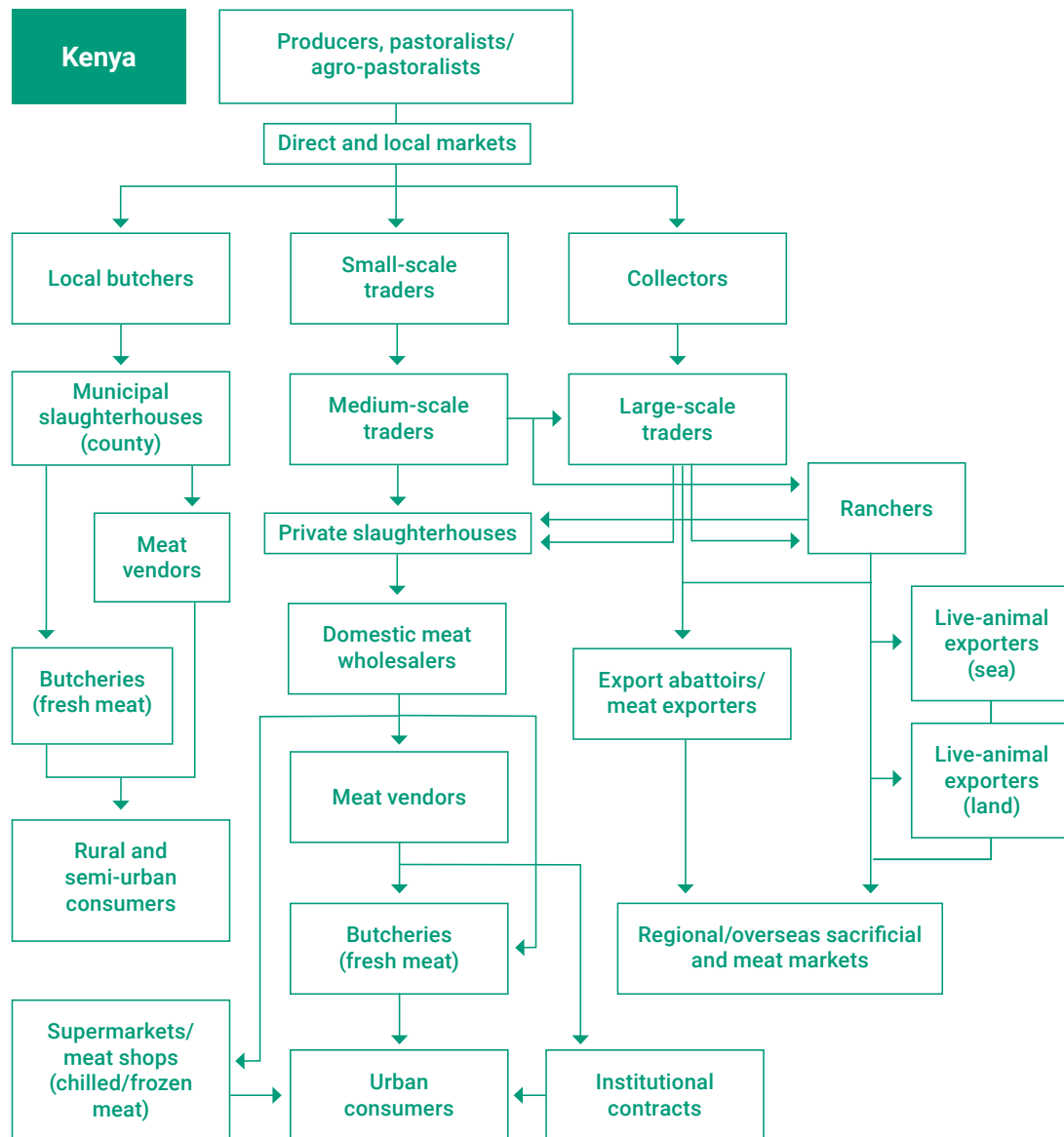
Source: Mercy Corps (2021).

Nairobi’s consumer red-meat market is the destination for most of the trade in north-central Kenya, while livestock from north-east Kenya flows variously to Somalia, Mombasa and Nairobi depending on seasons and prices. Figure 2 presents typical marketing chains for beef, sheep and goats in Kenya.

Consumer prices for meat are largely stable in each of these markets. Higher and lower operating costs (transport, fees, feeding/water) are rarely passed on to the consumer but, rather, are passed along to the producer in the form of lower prices offered for animals (personal communication from a government technical advisor, September 15, 2021).

Doing business within the livestock and meat markets is not without challenges. Actors face an adverse business environment because livestock (cattle and small ruminants) rival the maize trade in attracting high market fees (Karugia et al., 2009; Gor, 2012). Primary and secondary marketplaces have limited infrastructure or services, yet buyers and sellers are subjected to various service charges by the local authority. The county governments collect revenue from sale yards, slaughter slabs, hides and skin operations, and trade licenses. As animals are taken to terminal markets, traders pay for movement permits between different markets as well as veterinary health inspection and other marketing fees. Traders also pay for movement permits between different markets, as well as veterinary, health inspection and other marketing fees. For instance, livestock originating from northern ASAL are taxed three or four times before

FIGURE 2: KENYA'S LIVE-ANIMAL AND MEAT SUPPLY CHAINS FROM PASTORALIST AND AGRO-PASTORALIST PRODUCTION THROUGH TO END CONSUMER



Source: Mercy Corps (2021).

reaching terminal markets in Nairobi. Further, even after paying all these formal taxes, traders must pay informal fees at police roadblocks en route to the destination markets (Roba et al., 2019).

Across the ASAL, there are numerous informal traders' and livestock marketing associations mostly aligned by the geographies and markets in which they operate. Their primary roles are information sharing, cooperation when sourcing livestock to fill orders, and peer-to-peer lending or fundraising when members have financial need. Participation in livestock marketing associations along with trust-based relationships and partnerships are strategies commonly used by livestock traders to manage risk (Roba et al., 2017). Formally registered livestock marketing associations do exist, but they are not common and often originate from

a development project or government initiative. At the national level, the Kenya Livestock Marketing Council (KLMC) and the Livestock Exporters Industry Cooperative (KEMLEIC) represent and coordinate actors, self-regulate the sector, advocate for investment into the sector, and lobby members as well as the county and national government to support sector development.

Livestock traders specialise in species, segments of the supply chain and geographies. Although usually open to new opportunities, traders typically fill a specific niche until there is a clear opportunity for a larger change in business operations.

'I purchase cattle from Garissa market and Bangali market in Tana River. I then sell these animals to butcheries in Nairobi and Mombasa. Occasional[ly] I receive an order to supply the Kenya Meat Commission.' (Trader BO, Garissa Town, north-eastern Kenya)

'I buy from producers within the county and neighbouring counties of Wajir and Tana River. My main customers are other livestock producers who come to the town to restock, livestock traders who supply Nairobi and Mombasa as well as local butcheries and residents within Garissa.' (Trader GH, Garissa Town, north-eastern Kenya)

To be successful, a trader must have a reliable network of suppliers as well as a network of brokers and buyers. Trust is embedded within these social networks; it reduces risks in aspects of the business such as overpaying, sourcing sufficient numbers of animals, finding a buyer and preventing theft if herds are mixed in transit.

'I have been a broker in the livestock market in Garissa and I am known to the traders and butchers and thus this helps me run the business. You know that you have to have a lot of networks to be able to run livestock trade successfully.' (Trader GH, Garissa Town, north-eastern Kenya)

There is little institutionalised coordination across livestock systems in Kenya, and poor market information systems increase the risk traders need to manage. Traders operate individually, based on information generated moment by moment through networks, making strategic decisions on where to source animals, what price to pay, how to move animals and to whom to sell (Roba et al., 2017). For many traders, livestock is a family business and what they know best. The strength of their business is based on their early experiences and continued growth of social networks, which originated from family relations. For many traders interviewed, their first income as young men was trekking a few animals to the market, selling them and buying new stock to take back home for breeding or fattening. Any money earned was saved until they had enough to buy their own animals that they could later sell. Others received livestock through their family members, to begin herding or enter trading. Livestock trade is highly seasonal and vulnerable to shifts in consumer demand and because of this, the number of livestock traded, and thus the trader's potential profits, depend largely on the trader's working capital and ability to reliably find buyers (Ng'askie, 2019; Onono et al., 2015).

In Kenya, very few women are involved in livestock trading. Ng'askie (2019) and Anno and Elenica (2021) estimate that women make up less than 15% of all livestock traders. Social norms keep women from seeing livestock trade as a desirable livelihood, and women often lack access to financial and social capital to assist them in moving animals across country borders or confidentially negotiating buying or selling prices (Waithanji et al., 2013). To trade more than locally and in small numbers of stock, women would need to travel over

considerable distances, for days at a time; quite apart from the dangers that might arise, most could not leave the household for more than a few hours owing to domestic duties and attending crops. Generally, due to capital insufficiency, conflicting household responsibilities, mobility constraints, illiteracy and low access to networks, women pastoralists are disadvantaged in accessing most supporting functions. There is also little coordination with other women to access markets and use transport sharing (Waithanji, et al., 2013).

3.1.2 Mali

Livestock forms a major part of Mali's agricultural economy. In 2019, the total value of livestock production was estimated at US\$2.5G (US\$ at 2014/16 value), 29% of the value of all agricultural output. Cereals, by comparison, made up 26% of the value of output. Most of the livestock value comes from meat at 68% of all livestock output, followed by milk at 31% (FAOSTAT data, accessed October 2021).⁴

The livestock kept are mainly cattle, chickens, goats and sheep, all of which are raised in Mali's diverse farming systems that range from intensive, irrigated cropping (for example, rice and vegetables) to extensive nomadic pastoralism.

Where cropping is predominant, either under irrigation or in the more humid southern parts of the country, livestock can be reared as backyard animals; whereas in the arid north, pastoral grazing in the rangelands can be found. In between, where farmers practise dryland cropping in semi-arid zones, livestock can be raised either by transhumant herders, or by farmers who send their herds and flocks out into the local bush to graze and browse.

Most livestock are kept in extensive systems. The animals feed on naturally occurring vegetation or crop stubble, except when they are approaching their market weight and need to be finished and fattened. Their forage is then supplemented by cotton cake (large areas in the south are planted to cotton) and crop residues from cereals and legumes.

Livestock output can vary because most livestock are fed on naturally occurring vegetation and crop stubble, both of which depend on seasonal rains that vary from year to year. When rains are ample, the crops grow well, the rangeland flourishes with new vegetation and, so, livestock grow fat. When drought strikes, forage and stubble are much less available, so the animals lose weight and can even die, although most are quite resilient to periods of little fodder.

Agro-pastoralism and pastoralism under pressure

Mobility is critical for the herds and flocks of nomadic and transhumant herders – and indeed for farmers in the semi-arid zones who may not move their animals as far as the herders, but must still look for forage and browse within a few hours' walk from their village.

Rangelands provide graze and forage seasonally yet variably. The only way to make use of this is to have mobile herds that can move where vegetation flourishes when it rains, and that can equally retreat to areas with dry season forage when the rains end and vegetation is exhausted in arid areas. If mobility is impeded, then production is lost.

Mali's rural population, however, is growing – despite people migrating from country to town or city – so the pressure on rural resources has also increased. Herders thus find that resources

FIGURE 3: LIVESTOCK ROUTES, MALI



Map of domestic and export livestock trade flows in Mali adapted from Bizimana, et al. (2015).

Note: Kati, not shown, is a major livestock market. It lies 15km north of Bamako.

they once used, such as a marshy area for dry season grazing, have now been converted to irrigated fields or designated as a reserve. Additionally, as herders move down longstanding migration paths, they find that farms have taken over land formerly bush and fallow, so that whereas before their herds could pass through without damage, now livestock increasingly risk trespassing on growing crops. (It is generally understood, at least in farming villages, that farmers who carve fields out of the bush have henceforth established their rights to that land, irrespective of any longstanding temporary usage by herders.)⁵

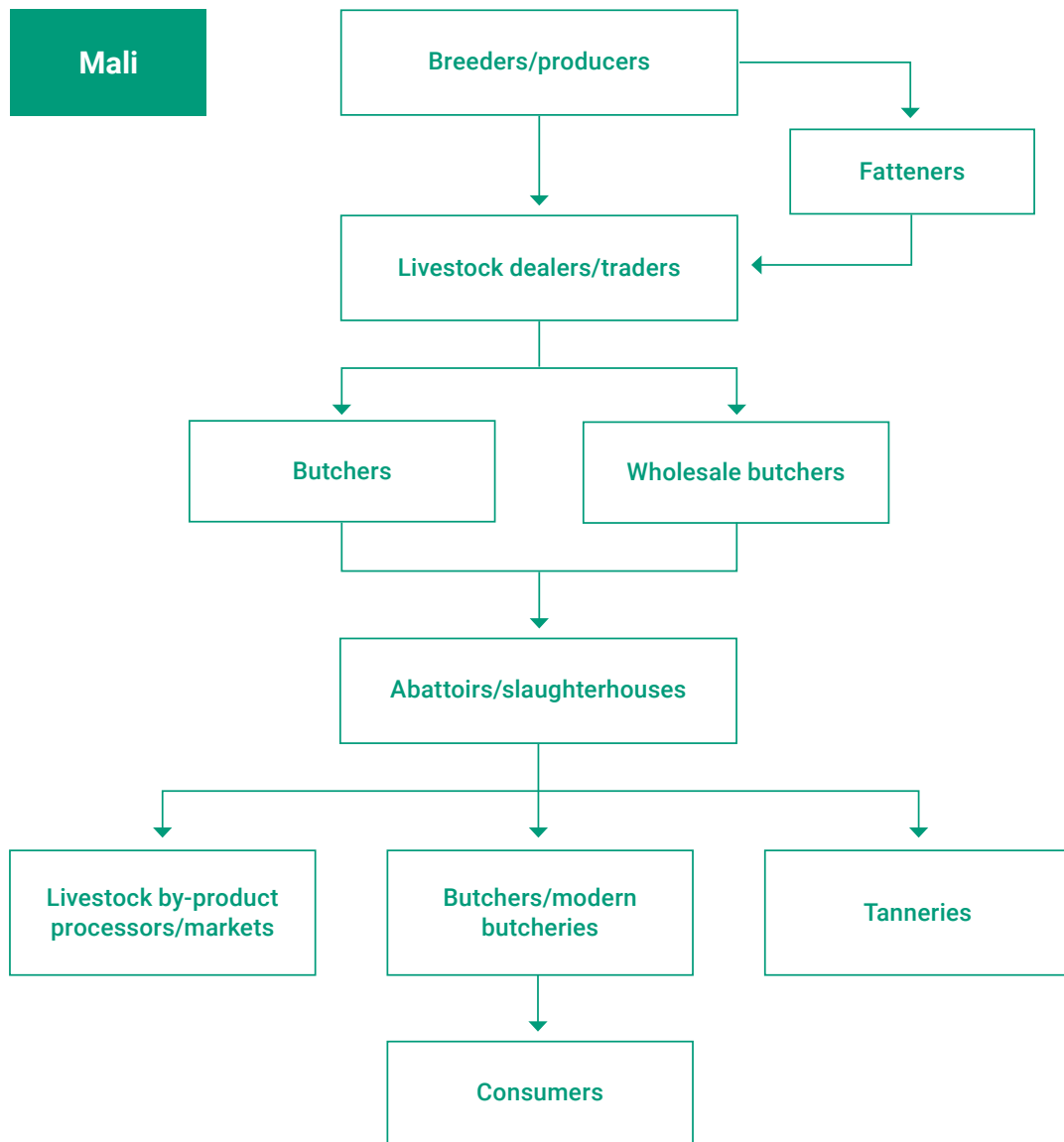
Moreover, farmers increasingly keep some livestock. They expect their animals to graze locally, so that their livestock compete for feed with the herds of transhumant herders.

Demand for livestock products

The towns and cities of Mali are growing. Incomes may not be rising as fast as people would like, but they are increasing – and with this so, too, is the demand for meat, dairy and eggs. Moreover, adjacent countries, such as Côte d'Ivoire and Senegal have large cities where the demand for meat is high, and the prices on offer more than compensate for the cost of trucking cattle to their markets.

Hence livestock are a good investment. Farmers and pastoralists know that if they can keep their animals healthy and fed, they will make money from them – and so they strive to increase their output.

FIGURE 4: MALI'S LIVE-ANIMAL AND MEAT SUPPLY CHAINS FROM PASTORALIST AND AGRO-PASTORALIST PRODUCTION THROUGH TO END CONSUMER



Source: Conseil National du Patronat du Mali (2016).

Thus, pastoralism and agro-pastoralism are not systems belonging to the past, stages of livestock production to be left behind. Although, while an increasing share of livestock products may come from farms, as intensive poultry, dairying and animal fattening become more profitable than growing crops, the absolute amount of livestock produce coming from pastoral systems should not decline.

Connecting supply to demand

Livestock traders link herders and farmers who produce livestock to meet the demand for livestock in towns and cities within and outside Mali (Figures 3 & 4).

Marketing typically begins with local traders and collectors assembling animals from individual herders, farmers and village fairs, to form groups of animals destined for the market. Stock are then moved to market either by trek or truck. Trekked stock are usually young and they graze as they go, so they gain weight as they trek. And, given the many hundreds of kilometres between pastoral areas and some destinations, trekking takes time – especially when stock move to neighbouring countries, six months or more may pass.

The alternative to trekking is loading stock on trucks, where it can then be taken to markets in hours or days – sometimes with breaks for watering and grazing when journeys are very long, as applies with exporting. Trucking is favoured when the animals are mature and heavy: indeed, the heavy stock favoured in markets such as Nigeria simply could not undertake a trek.

Transport from rural areas back to urban centres is not necessarily costly because the trucks have already been largely financed to deliver consumer goods to rural markets. The risk for the truck drivers is that they make the return trip empty, so they are eager to offer attractive rates in order to fill their vehicles.

Simply moving stock is not the only activity in the marketing chain, however; animals may also be fattened at most points in the supply chain. Out in the semi-arid areas, herders and farmers may fatten up their stock for five to six months, supplementing local forage and graze with crop stubbles, bran from milling and cotton cake. In market centres, livestock traders and other entrepreneurs may set up feedlots. There, they buy stock, bring them in, then feed them up before sending them on to larger market centres. Close to the cities, business people with capital buy stock from traders, then set up feedlots to fatten the livestock before delivering them to local abattoirs.

Livestock marketing is closely adjusted to variable livestock production. Demand for meat in the cities is reasonably steady, with the significant exception of meat for festivals – above all Tabaski⁶ – so that traders can be reasonably sure what can be sold at terminal markets and for roughly what price. Mobile phones facilitate this. Supply, however, is variable and much less predictable. Hence collectors, traders, fatteners, truck drivers – all must be flexible and adaptable. The informality of the chains, the multiplicity of actors, and the close social relations that have often been built up among the actors make this possible.

To the uninformed observer, it can look chaotic, inefficient. Yet, it is anything but. Not only do the chains ensure that livestock from immensely distant pastures are delivered to meet urban demand but, also, studies show costs of intermediation in the chains to be relatively low.⁷

Women's involvement in marketing is usually limited to the sale of sheep and goats, usually in ones and twos, to finance the occasional need to spend money for the household, such as school fees. They may also fatten these animals as well, which usually coincides with bringing the animal ready for a festival – again, Tabaski being the most significant.

3.1.3 Somalia

Livestock and its role in the economy

Livestock are central to Somalia's economy, contributing around 40% of GDP and 80% of all export earnings (ICPALD, 2015). Livestock are the major productive asset for pastoral communities, particularly among vulnerable, low-income households. Pastoral households

have few alternative options for durable, productive assets and have limited opportunities to diversify their income portfolio and livelihood base. Despite substantial differences in livelihood strategies between groups, rural and nomadic populations rely heavily on agriculture and livestock production. More than 60% of the nomadic population rely on livestock and about 25% of the rural population rely on agriculture as their primary livelihood (World Bank, 2018).

Somalia has three livestock production and management systems, which include nomadic and transhumant pastoralism, agro-pastoralism, and urban and peri-urban livestock rearing. The systems are determined by factors such as natural resources, pasture and labour availability. Nomadic pastoralism is predominant, and is characterised by little or no cropping and the high mobility of people and animals in search of water and pasture. While nomadic and transhumant pastoralists are found throughout Somalia, they are most concentrated in the central rangelands and in the northern rangelands of Somaliland and Puntland. The population engaged in pure pastoralism is 3.2M (about 26% of the total population) as per 2014 estimates. Agro-pastoralism is becoming a significant economic activity with 22.8% of the population, as per 2014 estimates, engaged in farming to diversify their food and income sources (World Bank feasibility study, unpublished).

Response to drought and other shocks

Somalis are exposed to various idiosyncratic and covariate shocks, which contribute to vulnerability, poverty and displacement. Drought is the most pronounced shock – affecting almost 66% of households – with crop and livestock loss being very prevalent. In addition to weather shocks, families are exposed to water shortage, theft, insecurity and high food prices. The impact of each shock becomes more pronounced when households experience multiple types at the same time (ibid.).

As a response, pastoralists move their herds from wet- to dry-season grazing areas to access water, pasture and markets; and diversify by herding various animals that include grazers (for example, sheep and cattle) and browsers (for example, goats and camels). In response to a perceived onset of drought, pastoralists sell older and weaker animals, and slaughter young animals to safeguard core breeding females, even sometimes causing them to abort before giving birth (Banerjee et al., 2021).

Over the years, changes in land laws, civil war and inter-clan conflict have resulted in increasing numbers of pastoral households enclosing land for rainfed farming, pasturing lactating animals and for dry-season grazing (UKEssays, 2018).

Despite these changes, wealthy households continue to trek livestock on seasonal migrations, with camel herders covering vast distances and crossing borders. In contrast, poorer pastoralists dependent on small ruminants are less mobile, with many living year-round in semi-permanent homesteads and trying to survive through alternative livelihoods, such as exploiting local rangeland or moving to sedentary farming areas in search of employment and farming opportunities (Leonard 2007, as cited in Banerjee et al., 2021).

Livestock trade in Somalia

Livestock trade in Somalia (Figure 5) is mostly unregulated, and its success relies completely on informal systems, even for finance. Animals are sold in primary markets and are then, according to seasonal demand, trekked or transported to secondary, main or terminal and export markets, along well-established, longstanding trade routes that crisscross Somalia's

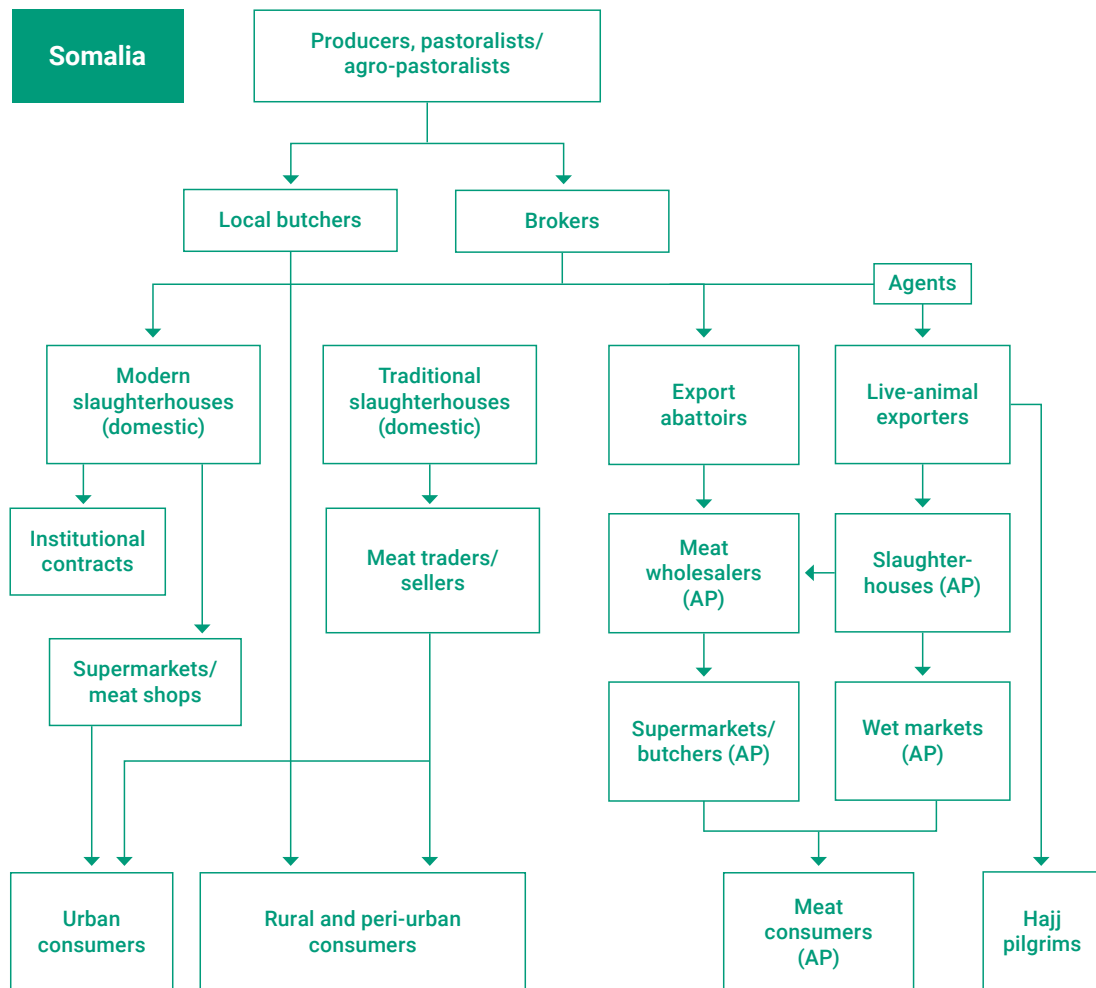
borders with its neighbours (ECA, 2017). According to a 2012 study done by ICPALD, there are 10–15 different sets of actors and as many as 30 different transactions from the original animal sale to trekking, feeding, watering and loading onto boats at the ports. These actors include pastoralists, brokers, small-scale traders, herders, feed and water suppliers, medium-scale and large-scale traders, financiers, trekker-transporters and exporters (Banerjee et al., 2021) (Figure 6).

FIGURE 5: LIVESTOCK ROUTES, SOMALIA



Source: Mercy Corps (2021).

FIGURE 6: SOMALIA'S LIVE-ANIMAL AND MEAT SUPPLY CHAINS FROM PASTORALIST AND AGRO-PASTORALIST PRODUCTION THROUGH TO END CONSUMER



Note: AP meaning Arabian Peninsula

Source: Mercy Corps (2021).

3.2 RURAL FINANCE AND FINANCE FOR LIVESTOCK MARKETING

3.2.1 Kenya

Kenya has one of the most developed financial sectors in the Horn of Africa. Approximately 33 different financial institutions, including commercial banks, microfinance institutions (MFIs) and government financial institutions, offer products and services to agriculture. Most lending or credit facilities target producers or SMEs for specific crops and commodities, or activities, or geographies (Opportunity International, 2019). Current finance centres on horticulture, tea, coffee, dairy and sugarcane. Loan products offered by MFIs and banks incur fees and interest rates of 3–5% and 1% respectively. Additional financial products include traditional and mobile savings, asset financing, personal loans and index-based crop and livestock insurance.

Financial provision in Kenya presents two contrasting perspectives: an overall growth in the use of formal financial products and services, but continued poor access and use of those services in Kenya's ASAL and livestock markets. Up from 27% in 2006, 83% of Kenyans are now engaged in the formal financial system (Mwangi, 2019). Much of this growth is in the form of transactional accounts; namely a mobile money account (for example, M-PESA) that is linked to a mobile phone. Approximately 70% of all Kenyans over 18 years of age have sent or received digital payments (FSD Kenya, 2019). The growth of digital financial services (DFSs) and subsequent agent banking networks have increased access to the formal financial system for many rural residents, but much less in the ASAL. Sustained use beyond initial registration remains limited, except for mobile money that is used more regularly to pay bills such as school fees, receive remittances from family members, and receive payments from government safety-net programmes (Weingärtner et al., 2019; Mwangi, 2019).

Literature specific to financial products and services in Kenya's ASAL counties is skewed heavily towards pastoralist and agro-pastoralist households. We found few reviews or studies focusing on financial inclusion for livestock traders in Kenya, although the widespread use of informal finance, buying/selling on credit or lending money between peers is routinely mentioned in analyses of livestock market systems and trading practices in Kenya (Ng'askie, 2019; Roba et al., 2017; Isako et al., 2019). Pelrine (2009) noted that, although there was significant analysis of Kenya's agriculture value chains including livestock, there has been little analysis of financing opportunities in livestock and agriculture. During his assessment of the beef sector, Pelrine's weighted ranking demonstrated a low level of confidence (43%) that the sector could support smallholder financing through private financial institutions (*ibid.*). Although his analysis focuses on smallholder finance, sector-wide characteristics point to low financing opportunities along the value chain. According to Pelrine, key barriers to successful financial products and services include: low evidence of commercialised production; weak evidence of diverse value-added products; weak relationships between sellers and buyers; an absence of third party risk management products; and an absence of financing to other market actors in the sector (*ibid.*).

Mobile banking

Affordable mobile phones (smart and feature) are readily available in most marketplaces and town centres. Kenya's mobile network, despite its size and reach across the country, continues to have network challenges in ASAL, which hinders using mobile money for livestock transactions. Although mobile money is prevalent, this is mostly for person-to-person transfers, payment of bills and, increasingly, savings and short-term credit.

Five mobile network operators (MNOs) serve Kenyan markets: Safaricom, Airtel Kenya, Telkom Kenya, Mobile Pay Services and Jamii Telecommunications Ltd (Finserve Kenya Ltd) (CAK, 2019). Safaricom and Airtel maintain a majority of the market share at 64% and 25% respectively. In 2019, five mobile financial service providers were available to mobile phone users (Table 2).

TABLE 2: MOBILE PHONE NETWORK OPERATORS IN KENYA

Operator	Mobile money transfer service	Market share
Safaricom PLC	M-PESA	82.4%
Telkom Kenya Ltd	T-Kash	0.52%
Airtel Networks Ltd	Airtel Money	11.2%
Mobile Pay Ltd	Tangaza	0.29%
Finserve Ltd	Equitel Money	5.8%

Source: CAK (2019).

Accessibility to mobile financial services is increasing as MNOs maintain large mobile agent networks, approximately 190,000 agents across all services. These MNOs outnumber bank branches (1,505), bank agents (61,604) and ATMs (2,833) combined (CGAP, 2020). With the maturation of mobile money platforms in Kenya, there is an increase in additional digital financial services to meet different consumer needs and wants. Currently, Kenyan consumers can access 12 or more financial products and services, in addition to person-to-person transfers, associated with mobile money. These include direct payments to merchants, digital credit and digital overdraft, savings and investment services, insurance, and fundraising or group savings.

Further analysis of these cash-in/cash-out networks (CICOs) show significant differences in access between urban and rural locations, and rural agriculture versus rural dryland locations. Except for urban centres and places along tarmacked roads, it takes a distance of one or more kilometres to reach a CICO provider in northern Kenya's ASAL counties (CGAP, 2020). To address this issue, CGAP calls for supply-side incentives, infrastructure investment or business model innovations to overcome constraints that prevent the economic viability of CICOs in Kenya's ASAL (Hernandez, et al, 2021).

'[Traders'] use of the mobile banking services – M-PESA services – for savings and transfers in livestock trade is common. Sometimes, for ease of cash, Hawala[®] services are also used, but for rural markets traders will prefer to carry cash and pay producers directly, as the rural M-PESA shops may not have all the cash. Mobile banking services are very reliable as well as M-PESA, but in rural areas, cash is the most preferred payment method for trading.' (Livestock Marketing Association (LMA) representative, Isiolo, northern Kenya)

For end users, liquidity constraints at CICO locations limit use of services and reduce producer willingness to receive payments electronically. This need to rely on cash trickles down the marketing chain from producer to primary, secondary and tertiary trader. Although this could be overcome through strategic cash management, as animals are aggregated near commercial centres, limitations on deposit and withdrawal amounts constrain large purchases and the movement of money especially by large-scale and end-market traders. Until barriers to widespread use of digital financial services are addressed, cash will remain the preferred method for buying and selling livestock along much of the marketing chain, primarily for its ease of use and familiarity.

BOX 2: ISLAMIC BANKING IN KENYA

Islamic banking emerged in Kenya with Barclays launching Islamic banking products in December 2005. The sector later expanded with the introduction of two Islamic banks: First Community Bank in 2007 and Gulf African Bank (GAB) in 2008. Other conventional banks, such as Kenya Commercial Bank, now offer Shariah-compliant products through special Islamic windows.

In 2010, through the Finance Act, Kenyan authorities amended Section 45 of the Central Bank of Kenya Act to allow the Central Bank, as the government's fiscal agent, to recognise the payment of a return rather than interest on government securities, thereby opening up the spectrum of Shariah-compliant investments in the country.

As of the end of 2014, Islamic banking accounted for only 2% of Kenya's total banking business.

Sources: Ndung'u (2011); Gelbard et al. (2014); Ali (2016).

Need for finance

In livestock marketing, financial needs can be broken into three categories: start-up, expansion or growth, and recovery. All traders interviewed started their business from their own savings or borrowed from family in cash or in kind, usually live animals. Traders begin their career buying and selling small numbers of animals, primarily sheep and goat, as they build their knowledge, networks and confidence. The business is maintained by reinvesting revenues back into it, with some profits saved for future needs. Financial resources to expand one's business largely come from savings or from borrowing from other non-family sources (for example, other traders). Availability of non-family resources depends largely on the social capital that was built, over time, in the market. Sourcing start-up capital versus expansion capital may be associated with risk; compared to expansion activities, start-ups are seen as riskier to finance, even through informal lending systems.

Trading businesses typically grow as a larger-than-usual order for live animals is received, or as the trader deals increasingly in larger, more expensive animals such as cattle or camels. When traders incur high losses, resources to recover come from a combination of savings, family lending and non-family or peer lending. If livestock traders are members of a livestock marketing association, that association may offer no-interest loans to assist members in returning to trade.

When discussing different types of traders with national experts, it was noted that, for seasoned traders, recovery was a managed risk. Yet for individuals just entering trading (for example, educated pastoralists returning to livestock after a career in a related but different role), sudden losses often led to a complete exit from the livestock trade.

Informal finance through social or peer and family networks remains the most-used financial resource in Kenya's livestock sector. Money is lent, cash and in-kind as livestock, based on trust with the understanding that if and when the lender needs financial assistance, the borrower will reciprocate as much as possible. Although cash is clearly the preferred mode of buying and selling live animals along the livestock marketing chain, all traders interviewed had a mobile money account, or a savings account at a commercial bank, or both. Mobile money accounts and commercial savings accounts were used to save, to pay small transaction costs such as transport, or to advance money to buy supplies or feed or water. Whereas the cell phone is an essential part of their business primarily to communicate with other market actors (voice and SMS), digital financial services were used when it was easy to do so, or when it reduced transaction costs – but digital financial services were not essential to business. Live animals have a high value and large, end-market traders may be trading tens to hundreds of animals in any one transaction. Transaction thresholds to bank withdrawals or mobile money transfers increase costs or require more time and energy to use. Cash enables traders to transact quickly and easily.

Traders perceive the use of bank loans, or other types of formal finance, as increasing their risk. If a trader takes out a loan but has problems in his business, or there are other family needs that require money, the trader will struggle to pay back the loan.

3.2.2 Mali

Financial inclusion in Mali

Formal financial services in Mali can be divided into three categories of financial sophistication and by the extent to which people use them (financial inclusion). At the top of the financial pyramid⁹ are banks that offer a wide range of financial services, where people can save, take out loans and make payments. Less than 13% of the adult population have a bank account, a percentage that has slowly risen since 2009 (BCEAO data, 2020) (Figure 7).

The next category consists of various savings banks (*caisses d'épargne*) and microfinance agencies (MFIs). In 2019, they were estimated to be used by just under 13% of the adult population, a share that has actually fallen slightly since 2009, for reasons that will be explained in the next section.

Because those with accounts in savings banks and microfinance agencies generally do not have accounts in full banks, the total share of the population covered by all of these providers came to just over a quarter (26%) of the adult population in 2019.

The simplest service is mobile money to make payments by phone. Almost unused in 2009, some 65% of the adult population had opened accounts for this service by 2019, although it seems only 23% of adults have active accounts.

Microfinance

Mali is distinguished by the large number of MFIs set up in the 1990s and 2000s. Deposits grew by 12% a year from 2003 to 2013, and loans by 13.5% a year. The MFIs served as many rural customers as urban; a sample survey at the time showed that nearly 50% of credit was for farming – inputs, tools and equipment, and warehouse credit. Microfinance was also reaching women:

'In 2013, one third of users were women, without taking into account the members of women's groups which constitute the majority of groups classed as Legal Persons. Therefore, the percentage of women served by the sector is likely to be much higher than 30%.' (World Bank, 2015)

In 2012, however, disaster struck. The economic crisis associated with that year's coup found many MFIs had over-extended their lending, with credits that borrowers often could not repay, owing to crisis. Many MFIs became insolvent and two of the largest collapsed, ceasing business. As they went under, they took with them the deposits of their savers: an estimated 100,000 people with savings worth US\$20M.

Since then, the remaining microfinance agencies have been trying to recover, while financial supervision around them has been tightened (Développement international Desjardins, 2016). Hence the small decline in their use in the 2010s (World Bank, 2015).

By 2020, 86 MFIs were in operation with an estimated 1.2M clients; holding total savings amounting to FCFA 122M or US\$21M (an average of FCFA 95k or US\$128 per customer) and a loan portfolio worth FCFA 142M or US\$24M, of which 6% was rated as (seriously) overdue (BCEAO data for 2020). Although many MFIs exist, six dominate, with more than 80% of savings and loans in 2013 (World Bank, 2015).

Programmes to develop rural financial services

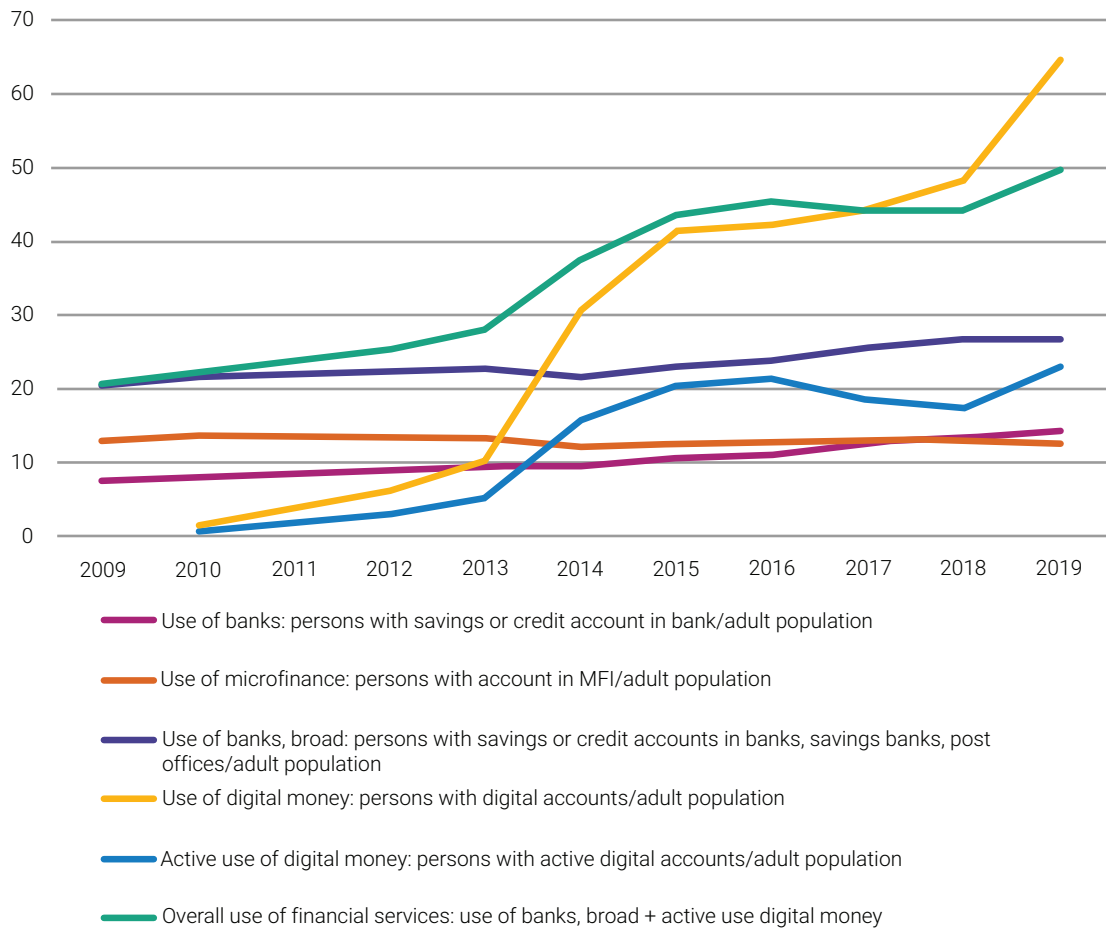
Several initiatives to develop rural financial services were underway in the late 2010s

Financement agricole et rural au Mali (FARM) operated from 2014 and was funded by the Canadian government and implemented by Développement international Desjardins (DID). It ran until 2020. The focus was to develop the capacity of six financial institutions, four of which were microfinance agencies, to lend to farmers and herders. The key was to increase the staff's ability to appreciate the economics of agricultural lending. Although the FARM project has largely concluded, its support for agricultural insurance continues. Moreover, a follow-up project was reportedly being planned (in 2021). (Information from interviewee)

Inclusive Finance in Agricultural Value Chain Project (INCLUSIF), is a very large programme – with a budget of US\$110M – that started in 2018 and will run until 2024. It brings together the government of Mali with IFAD, and the governments of Canada and Denmark to:

'...improve financial inclusion for smallholders and small and medium agrifood enterprises in Mali. It is expected to reach 440,000 direct beneficiaries from disadvantaged groups, rural family farms, professional organisations (cooperatives, unions and federations) and private-sector agricultural enterprises. At least 50 per cent of the beneficiaries will be women and young people aged 18 to 40.' (IFAD 2021, <https://www.ifad.org/en/web/operations/-/project/2000001062>)

FIGURE 7: FINANCIAL INCLUSION IN MALI



Source: BCEAO data (2020).

To finance groups of disadvantaged farmers, it operates by connecting financial agencies (mainly MFIs) to farmers in the southern half of the country, but not to herders.

Neyral is a microfinance agency that was set up in 1993 in Douentza in the semi-arid north of the country to provide financial services specifically to livestock keepers with an emphasis on women, starting with two women’s groups in Douentza. Supported by the Near East Foundation, it became NAYRAL¹⁰-NEF and flourished. As a 2011 report describes:

‘Nearly two decades later, the institution has given more than 15,000 women, across 111 groups, access to microcredit. Since 2002, NAYRAL-NEF also began lending money to male groups and individuals, who now represent nearly a quarter (23%) of the institution’s clients, and 47% of its total loans. To date, NAYRAL-NEF has lent an equivalent of one million dollars – providing each of its borrowers with an average of US\$125 each year.

If the institution has grown dramatically in size, so too has it expanded in geographical reach and economic activity coverage. Borrowers can now be found across Douentza, Mopti and Timbuktu, receiving loans to finance a wide range of income-generating activities, from small businesses to animal husbandry.

From our observation, the microcredit scheme has clearly enabled many poor households to reduce their vulnerability to climate shocks – by diversifying their income-generating activities and accessing financial loans when needed.’ (Essam et al., 2011)

Interviewees reported that as insecurity in the north grew, the agency had moved to Mopti. It was still functioning in 2018 but it is not clear if it has survived increasing insecurity and the pandemic that began in 2020.

Livestock traders’ use of finance

The need for finance

Traders need to finance the purchase of livestock and their transport, and sometimes their fattening. Most needs concern working capital, which can be recouped within the span from trading to fattening (so from a few to eight months), rather than investment capital, which might be recouped over several years.

Livestock trading and fattening appear to be profitable as opportunities are growing due to an increase in demand for red meat from the cities of Mali and the surrounding countries. Despite the growing difficulties of trading in Mali, as security in rural areas worsens, when asked what they would do with a credit worth US\$10,000 (FCFA 5M), all interviewees said that they would invest more in trading and fattening.

Starting a business in the marketing chains

Most traders reported that they had started their businesses from almost nothing – buying a couple of sheep or cattle, then selling them. In almost all cases, the start had been made with their own funds, sometimes supplemented by those from friends and family. Almost all interviewees said they financed the expansion of their business from their own cash flow and profits (Box 3).

Sources of working capital

Very few traders made use of the banks for business loans. Just four from 16 traders had ever had a formal credit, and in one case this was once many years ago. Only one trader said he could access from a bank all the working capital he needed and did so regularly. Other traders had a bank account, but it was often not active, used for savings and not for business.

Several traders commented that they did not do business with banks or MFIs because the procedures and paperwork were onerous, while interest rates were high.

The one exception to not using formal finance, was the use of mobile payments through Orange Money. Even then, only eight of the 16 traders were using this. Those making mobile payments liked it for reducing risks of handling cash. But the other half of traders were not impressed, and one worried that if he entered the wrong data with a clumsy key stroke, he would lose money.

BOX 3: BUILDING A LIVESTOCK BUSINESS IN MALI

'I started out with three heads of sheep, over time I was able to increase the number of heads to 20.' (Trader, Koutiala)

'I started by walking cattle between Niono (well to north) and Konobougou then Konobougou and Bamako. I did about three years in this business.

Afterwards I gave up this activity to concentrate on buying and reselling in the Konobougou and Fana cattle markets; little by little I saved myself and at the same time started fattening. Today I focus a lot more on the fattening.

I started with three heads, then gradually 10.' (Trader, Konobougou)

'My father was in the cattle business. I started trading with him since 1995. I had borrowed money from him to pay for three cattle. Since then I have gained my independence and I operate my business on my own.

Over the past 20 years my business has had its ups and downs depending on the market situation, the countryside and now the insecurity. Often, I can pay [for] 20, 40, 100 [cattle] or even more per week and export abroad (Côte d'Ivoire and Senegal). Since the insecurity started in 2016, I often reach 100 cattle, but with great difficulty.' (Trader, Tènè)

Note: Interviews originally in Bambara or Peulh, written up in French, then translated to English.

Traders reported that, from time to time, their working capital was supplemented by informal loans. Large traders in the supply chain would advance funds to allow smaller traders to buy livestock or fatten them prior to delivering to the former. Traders also advanced cash directly to animal collectors (local agents who aggregate stock, some with close working links with the traders they sell to), and even to farmers, on the understanding that they would get animals in good time, and then the debt would be cancelled, without interest.

3.2.3 Somalia

Somalia's financial sector operates through various formal, less formal and informal actors, which include: three central banks; money transfer operators with international bank accounts; mobile money operators tied to the private sector; and informal money transfer businesses (MTBs) operating locally (El Taraboulsi-McCarthy, 2018).

Most of the rural population is not banked: banking services only reach 16% of the population as a whole and most of the clients live in urban centres. Expansion of financial services is a significant challenge under conditions where managing liquidity, securing deposits and clearing imbalances require manual operations.

There are five main categories of financial actors in Somalia's formal financial sector: central banks, commercial banks, MTBs, MFIs and MNOs.

Mobile money plays a very significant role in Somalia's financial ecosystem largely due to the lack of faith in the Somali shilling, but also due to the difficulty of using US dollars for low-value transactions, and the zero-rated transaction costs and ease of use of mobile money services.

Access to finance

The availability of pro-poor products is not extensive. The system strongly incentivises a small number of high value transactions over a large volume of low value transactions. Borrowing opportunities for small, informal or semi-formal businesses are very limited.

While rather dated, a study from the 1990s estimated that less than 10% of money for primary livestock purchases was formally sourced from banks; the vast bulk of it being informally sourced from kinsmen, friends and associates. For reasons of security, mobile traders seldom carry cash, in particular when visiting remote and insecure areas (Little, 2010; Banerjee et al., 2021).

Several MFIs exist, complementing the services provided by the banks, but their outreach and coverage mirrors that of banks. One of the most popular and well-established banks in Somalia, the Dahabshil Bank, has a microfinance service through its foundation that is working with small businesses unable to meet the requirements of commercial banks for securing loans.

BOX 4: ISLAMIC FINANCE SERVICES IN SOMALIA

Islamic microfinancing is proving popular among the poor in providing services to obtain loans, and help enhance standards of living. Most of the borrowers consider the rate of return, terms and conditions of small loans to be reasonable (Hassan, 2019).

However, in spite of its popularity due to its perceived ease of accessing finance, Islamic microfinancing also faces challenges, similar to some of the national banks, in reliable national identification and business registration systems (Warsame, 2016).

Women in Somalia have always played an integral part in the economic and trade development of the country. Following the collapse of the central state, most women became the breadwinners for their families through business (Ali, 2019). In spite of this, financial institutions are not accessible to women. This is because women often lack collateral, need a male guarantor, have informal businesses, and need more flexible and smaller loans, compared to those offered by formal institutions.

Women prefer informal loans, as they are more flexible, have low interest rates and extended repayment periods. Small business owners who are women can access cash grants and loans through friends, relatives, neighbours, diaspora networks, clan members, extended families, moneylenders and *hagbed* (savings). Businesswomen often look for loans in the range US\$200–800, and NGOs play an important role in facilitating such finance; as this loan amount is typically too small to get from formal sources such as banks, women often get left out.¹¹ This is done mainly by organising the women through self-help groups (SHGs), which are then linked to the formal financial institution (Abdi, 2021). However, not all SHGs are able

to access financial services. Those able to include: those with enough social capital to secure a guarantor; those who know about particular services available in their area; those who can call on help from their clan or similar organisation; and those with the appropriate training and capacity to navigate the system (Calhoun et al., 2020).

Only two insurance companies officially operate in Somalia, but the insurance sector is starting to grow. Although the concept of insurance is neither unknown nor new in Somalia, as there was a government-run national insurance scheme during the pre-war regime, the industry is weak and underdeveloped. While coverage by insurance is very low, 90% of the business is medical insurance provided to NGOs and expatriates; all provided by the only two insurance companies operating in Somalia: Takaful Insurance of Africa (TIA) Somalia and First Somali Takaful & Re-Takaful (FISO).

TIA is the largest in terms of underwritten premium, and its primary business is the medical insurance cover that constitutes around 90% of the underwritten business, though the total gross underwritten premium is below US\$6M. The NGOs and development partners operating in Somalia drive the medical insurance business. The insurance companies also offer insurance for motor vehicles, marine cargo, travel and businesses; and the products are Shariah-compliant.

Both companies rely on external re-insurers, such as Kenya-Re, First-Re, Tunis-Re to cover their risks in a self-regulated environment, owing to a lack of insurance laws and regulations and an associated supervisory regime. The World Bank supports the Government of Somalia in drafting the Insurance Law and regulations under the Somali Core Economic Institutions and Opportunities Program (SCORE) and SCALED-UP project. The law was expected to be completed by September 2019.

Finance for livestock

Even though the process is still under progress, it is the most sought after, Dahabshil Bank does not have specific products related to livestock as, according to them, most of the would-be borrowers do not meet their basic requirements. Though these requirements were not explicitly mentioned, it was clear from the areas that they provided loans to (finance for agriculture, livestock, medicine, and other small-scale businesses) that they financed activities that were fixed in a particular place, and restricted to only big or main cities. Even though some of these institutions have branches in the smaller cities, they do not have the facilities there to process loans. Moreover, most of the recipients of loans or finance from formal institutions we spoke with had to generate their initial capital from informal sources such as family, friends, clan members or depend on remittances (Box 5).

Depending on how and where they were trading, livestock traders relied on savings, or if they needed credit, turned to informal sources such as family and friends. Traders who exported were often part of cooperatives or associations that provided them with credit on reduced interest rates; but medium- and small-scale traders often either relied completely on remittances and friends or had other sources of income, such as kiosks, family members holding jobs and so on.

Need for finance

For established businesses, depending on their nature, finance may be needed throughout the year (as applies to, for example, pharmaceutical companies) or at specific times such as elections, Hajj, Ramadan or other festivals (as applies to, for example, meat processing plants).

As for the livestock traders, the need for financing is seasonal – depending on the condition of each cycle (climatic and in turn the animal). On one hand, the demand for livestock peaks during the Hajj and Ramadan, leading to an increase in income. On the other hand, if the season is dry, capital is needed to maintain the condition of the livestock as salesworthy.

As mentioned earlier, mobile money is widely used. All respondents were using mobile money in one form or another (either EVC or eDahab). The reason for the use of mobile money was the ease in transaction and the ability to keep even small amounts of money for use, which probably would not be allowed to be kept in banks

Effect of Covid-19

Irrespective of the type of business or trade, the effects of Covid-19 have been felt across the board. For established business operators, the effects were felt in reduced incomes, the reduced availability of commodities and the reduced purchase of products (Box 6).

For livestock traders, the pandemic adversely affected their ability to access finance and get capital, especially for those who depend on remittances. Restriction on movement and the suspension of the Hajj affected some of the traders' ability to pay back some of the credit taken, and in turn their ability to access further capital.

BOX 5: SOURCES OF FINANCE IN SOMALIA

'At the start of the company, we raised the capital from the shareholders and in case we need more cash, we are able to call on these shareholders to fundraise.

We also have close relationships with NGOs and development partners with interest in improving the livestock sector in Somalia. In this case, we are part of the GEEL (Growth, Enterprise, Employment & Livelihoods) project that promotes inclusive economic growth in Somalia.' (Meat processor, Mogadishu)

'The start of the business was both luck and me seeking opportunity for income after I was not able to get formal employment. After scouting for different opportunities, I started the business with a very small gift (US\$500) from my brother who is in Europe. Overtime, the business expanded and now I am able to meet all my financial needs and orders. From the profits of the pharmacy, I was able to purchase an acre of agricultural land where I am now growing cash crops.' (Wholesale veterinary store, Mogadishu)

'I rely on credits, savings and transfers. When I have a large order especially during the Hajj season, I am able to mobilise additional financing by borrowing from other traders, asking for remittances from relatives abroad and using some of my savings to increase the amount of capital. I prefer my savings and take credit from other traders as it is easy to mobilise and does not have any paper-work and does not accrue interest.' (Livestock trader, Middle Shabelle)

BOX 6: EFFECTS OF COVID-19 ON FINANCE ACCESS AND USE IN SOMALIA

'Covid has affected the banking sector. Savings and repayment services have been adversely affected as customers' incomes have dwindled.' (Bank official, Mogadishu)

'Effects of this pandemic are customer loss and lack of financial support. We were unable to mobilise finances from suppliers and from business partners. There are restrictions on social movements, so jobs have decreased in the society and our business relies on the people, so that means when people lose their jobs and no payments have been received, they have to avoid expensive foods like meat.' (Meat processor, Mogadishu)

'The Covid-19 situation affected my ability to access finance. There is inflation caused by the pandemic all over the world, so that there are hardly any customers buying from me. This pandemic also affected my relatives abroad, on whom I depend, so instead of receiving help from them, they now need me to provide financial support for them.' (Livestock trader, Middle Shabelle)

SECTION 4

**CONCLUSION AND
DISCUSSION**



4.1 KEY POINTS

On livestock marketing

Livestock production substantially contributes to the economy of all three countries – Kenya, Somalia and Mali – providing livelihoods and incomes for many people. In Mali and Somalia, livestock products are also significant exports.

Livestock marketing chains are characterised by i) multiple channels that connect different production areas to local, regional, national and export markets; and ii) by their laborious nature, as animals are collected from herders in small numbers by local agents, then sold to traders who aggregate them until they form sufficiently large mobs to transport or trek to distant markets. The chains function with little state regulation and no overall planning; each collector or trader or transporter in the chain deals with their own part of the chain, relying on information from markets and their social contacts to decide what to do. In this respect, the chains may be seen as informal.

The chains have evolved to be flexible because the supply of livestock has to adapt to variations that can reasonably be foreseen (for example, seasonal differences in vegetation and extra demand for meat for festivals) as well as variations that are more difficult to predict (for example, droughts and outbreaks of violence). Everyone in the chain has to think on their feet and react promptly to changes in supply and demand. This can make marketing look chaotic and thus some observers see it as inefficient. The reality, however, is to the contrary as most studies show traders' margins in livestock chains to be modest.¹²

Livestock marketing in Kenya, Somalia and Mali appeared to be good business. In all three, demand for meat was growing both in national markets as well as in neighbouring territories, with large-scale exports from Mali to surrounding coastal countries and the lively trade in animals from the Horn across the Red Sea to Saudi Arabia and the Gulf states.

On rural finance

In the three countries, most financial services in rural areas are informal. Loans and gifts are made within families, circles of friends and with close business partners, where trust has been built.

Banks, microfinance agencies and financial cooperatives are little used in rural areas.¹³ Financial agencies know too little about potential customers. They are deterred by customers who often want to transact very small amounts and whose businesses – especially farming and livestock rearing – are seen as risky. Inclusion in formal finance is thus low.

Payments made through mobile phones are the only notable exception. Mobile payment systems simplify transfers of money, dramatically so. But, this technology facilitates the many cash transfers people have always been making, thus financial intermediation is not usually deepened. Payment services are expanding to include more sophisticated financial services such as savings, insurance and even (small) loans. It remains to be seen, however, how much customers will use these.

On financing livestock marketing

Trading livestock largely requires working capital to buy animals that will later be sold on, and/or possibly fattened. Interviews with traders showed that very few took loans from formal financial intermediaries for their working capital.

Instead, they started their trade with their savings, sometimes augmented with help from family and friends. They built up their enterprises by reinvesting profits. At times, they were lent funds by larger traders along the chain. Most traders had a long history of trading: usually more than ten years, and often more than twenty.¹⁴

Few had ever taken formal credits, and fewer still used such credit regularly. Those that did get formal loans, blended them with their other finance; the formal loans supplemented rather than replaced informal sources.

Some traders did not even want formal credit; they saw procedures and conditions as onerous, and interest rates as exorbitant. This may have masked a greater concern about the risks they took. Losing their own savings would be a misfortune, but one from which they could recover. Losing money borrowed from a larger trader might be embarrassing, but the lender has every incentive to keep the borrower in business if they ever want to see their money again. (And larger traders who know the business accept that, every now and again, money will be lost.) Banks, rather, tend to be less forgiving when borrowers cannot repay, especially when the banker is urban and, in so many ways, neither knows well nor identifies closely with borrowers.¹⁵ The danger is that bank managers will foreclose and try to seize the borrower's assets, after which recovery may be impossible. Fearing this, traders prefer to stick to what they know: their cash flows, their savings and the strength of their social and business networks.

The sole exception to not using formal finance was the use of mobile phones to make payments. This had the great advantages of removing the need for an extra journey to make a payment, as well as the risk of being assaulted along the way. Even so, some traders were not convinced, several fearing that a clumsy keystroke could lead to losses.

West versus East Africa

Each country study was conducted independently of the others, yet when the team met to compare their learnings, the similarities across cases were greater than any differences.

That said, some differences were apparent. For example, livestock marketing chains originating in Mali crossed frontiers into neighbouring countries more often than those in Kenya, which were largely domestic. Mali also had more livestock fattening than Kenya or Somalia. This was due to the availability of cotton cakes, which had little or no alternative use, that were produced as a by-product of the (large) cotton crop there.

Mali saw a boom in microfinance with many agencies set up in the 2000s, where at least half the credit was destined for rural areas. But in 2012, Mali also saw a bust in microcredit that led to the collapse of two large agencies and almost bankrupted many others. This experience prompted at least two large donor projects: one to strengthen rural financial agencies, the other to reach disadvantaged farmers with credit – for which, in both cases, the impacts are yet to be evaluated.

Kenya also learned lessons from microfinance. Although microfinance was introduced to connect rural customers with financial services, agencies now struggle to compete with banks – such as Equity Bank – that have created procedures and lines of credit suitable for small, informal business.

These are the immediate findings from this brief study. They give rise to two further reflections, as follows in the next two sections.

4.2 IS MORE CAPITAL NEEDED IN THE MARKETING CHAINS?

The vast bulk of livestock marketing is financed informally, mainly through cash flows and profits. Does that limit activity?

It may, if we take what traders in Mali told us into consideration: if they were to be given a loan of US\$10,000, they would reinvest it in their business to expand operations, to fatten livestock, or commission exports more often. In all three countries, traders explained how they built their businesses gradually, over time. Did lack of capital delay them? Perhaps, but it could also be that traders grew their business as they came to learn their trade, or as demand rose, rather than being limited by funds from accumulated profits.

If capital was limiting, then one might expect an under-supply of meat to national markets in the three countries, manifested in notably high prices. High prices for red meat were not seen in Kenya and Mali – and neither, do we believe, in Mogadishu.¹⁶ That said, export destinations from Mali and Somalia may be under-supplied; prices on offer in their terminal markets, such as Abidjan, Dakar and Jeddah, were attractive – higher than those in the exporting countries, and by significantly more than just the costs of moving livestock.

Some of our (knowledgeable) informants were wary of proposals to inject formal capital into the marketing chains. They feared it might erode the close personal relationships that allowed operations to adapt to changing circumstances and shocks, that it might encourage some traders to over-extend their businesses, to take undue risks. Indeed, one interviewee wondered if tight informal finance disciplined the traders, forcing them to keep costs under control and to adapt promptly to change. A prime requirement for managing money in the livestock trade is risk management – understanding the dangers (theft, road accidents, extortion by officials, livestock illness, etc.), expecting some of them to strike from time to time, and not over-extending any one operation that might fail, leaving unsustainable losses.

If managing risks matters, would formal insurance help traders? Would insurers be interested in providing policies? Would traders appreciate a formal insurance policy? The answer may well be ‘no’ in both cases. For insurers, setting risk premia would be nightmarish for anyone without vast experience of livestock trading and daily engagement with its hazards; checking claims would not be easy for insurers, either. Traders, for their part, may not want to change the way they guard against hazards. At present, they keep some cash savings, or assets in livestock, for a rainy day and invest in social networks. While a premium is lost in a year without shocks, investments in friendships and business partnerships are rarely a loss; traders may not need their contacts to bail them out every year, but the close contacts they keep can help reveal business opportunities, or market information that would otherwise be impossible to know – as well as, of course, all the satisfactions that friendship can bring.¹⁷

4.3 WORKING CAPITAL OR PUBLIC INVESTMENTS?

Even if some additional working capital might help livestock marketing chains to function more fully – with more activity, more jobs and income in the chain, higher demand and possibly better prices transmitted to herders – it may not be a priority.

Some interviewees told us that improvements to infrastructure – and their governance – were more pressing needs. They referred to:

- livestock migration corridors agreed by farmers and herders, with paths marked to facilitate transhumance and avoid quarrels;¹⁸
- water points that are open to all and equitably managed (without denying water to visiting herds); and,
- marshalling yards and vehicle loading ramps at market centres.

Those facilities, they said, would best be provided, maintained and operated by local authorities who would finance them through (small) levies on the livestock using them. Not only would this align incentives with objectives, and not only would such local bodies be best placed to work out the governance of the facilities, but it would also enhance the legitimacy of local government.

The agencies advocating this approach were acutely aware that this would mean working alongside the local governments to develop their capacity and expertise in technical matters.¹⁹

These investments are largely public goods²⁰ that require public investment, whether that be by central or local governments, donors or NGOs, or local cooperatives or associations. Public investments do not necessarily require the wider development of rural financial services.

4.4 PRIORITIES AND RISKS IN DEVELOPING RURAL FINANCIAL SERVICES

More than one key informant was wary about injecting formal finance into informal financial circuits.²¹ Even if currently there is no pressing need to inject much more capital into livestock marketing, as local economies grow, more businesses and households will need an expanded range of financial services for savings and payments, credit and insurance.

If financial development is not currently a pressing need, then what priorities were apparent from this study?

Shocks, and the risk of potential shocks, were a recurrent theme in the information collected. Potential shocks in the drylands are several and severe, arising from drought and other bad weather (exacerbated by global heating), from animal and human disease, from political failures and subsequent violence, from thin markets where prices can be volatile – the list is long.

This has led development partners in two potentially useful directions. One, they have explored and piloted forms of insurance, for example Kenya's index-based livestock insurance and ILRI's DIRISHA initiative²² for regional insurance. That said, index-based insurance has been proposed for at least twenty years across rural Africa, and pilots and trials have been running for just as long. Little or no evidence has yet been found of indexed insurance being taken up by the people it is designed to protect (farmers and herders), except when made free or heavily subsidised. Of course, that does not diminish the potential utility of insurance for governments both central and local.

Two, some agencies have looked to improve systems that anticipate shocks by i) generating more – and more timely – information to warn of likely hazards; and ii) by creating greater local capacity to cope with shocks. To be clear, this is not about national and regional level early warning systems designed to inform governments and development partners. This is about localised knowledge to inform herders and traders. Such systems are less visible to outsiders, less studied as well, but deserve trialling. If such schemes are designed to work so that information and capacity are co-created at village and municipal levels – the approach being taken by at least one NGO in Mali (Acting for Life) – it may prove more useful to target populations than indexed insurance.²³

Formal systems for payments and remittances were valued by some of those interviewed. In Somalia, an economy unusually and extraordinarily dependent on remittances, respondents spoke of remittances dwindling either under the impact of the pandemic or because, with time, expatriate communities of Somalis felt less connected to their homeland. That, however, may be a temporary decline in the exceptional circumstances of the pandemic. Over the medium term, the volume of remittances to the global south had been rising, as ever-increasing numbers of migrants with jobs in the global north have sent more funds back to their families and home communities.

To see how many traders interviewed were using their mobiles to make payments²⁴ is to appreciate that the development of rural financial services may better be served not so much by a unitary, idealised model, but by creating an **ecosystem of finance**. This would allow users to choose from an array of services provided formally – by more than one type of agency – and informally, as users see fit. Like physical ecosystems, it would need to be able to change and evolve rather than try to provide a full, fixed range of services from the outset.

If that were the case, then the ecological analogy suggests that a proliferation of initiatives, adapted to context and circumstances, from which people can learn and refine, may be the faster route to meeting people's needs than searching for ideal and comprehensive solutions to problems that tend to be defined by outsiders, however well-meaning they may be.

This raises a final reflection, one common when thinking about development initiatives, and that is whether progress lies in being ambitious and trying to solve knotty issues with radical solutions; or whether it lies in the accumulation of small improvements.²⁵ This can be seen in **debates over the modernisation of livestock marketing**. It is common to see analyses of livestock marketing in dryland Africa²⁶ that lament the lack of sophistication of current chains, and the apparently low value added to the livestock before they are slaughtered. Such analyses

then recommend additional investment in higher-yielding cattle, fattening of livestock, building new abattoirs with better food safety, etc.

Such thinking leads ministers to propose that, instead of exporting live animals on the hoof, they should be slaughtered close to their source, butchered into choice cuts, chilled, vacuum-packed and only then transported to market as higher-value meat. Specifically, the proposals manifest themselves in regulations that ban live exports and in (usually public) investments in state-of-the-art abattoirs built close to the rangelands.²⁷

A very different perspective is that the marketing chains are well adjusted to the variable supply of livestock and to the demand in regional and national markets, and that the trader margins seen are modest to low.²⁸ In this account, better practice lies in working with current actors in chains to make improvements at the margins, such as the (relatively low-cost) items described in the previous Section 4.3.

ENDNOTES

- 1 This may be changing in some parts of the world, such as North Africa, where pastoralists now often move their livestock by lorry. Better transport also opens the possibility for herders on rangelands to import additional feed and water when needed by their herds and flocks. When these are possible, the need for working capital in production potentially rises. For the three countries studied – Mali, Kenya and Somalia – it is rare for livestock to be trucked across the rangelands (even if they're commonly trucked from rangeland to market). Importing fodder and water are likely only to be considered when drought strikes, as they are needed to keep stock alive.
- 2 For example, Barry is the son of a herder and has spent most of his professional life studying pastoralism in Mali and is also active in professional and advocacy groups.
- 3 Some herders might have been able to be contacted by phone, but we did not have time to find them and contact them.
- 4 This almost certainly understates the value of livestock, because (a) it omits the value of livestock services, such as use for draught power in ploughing and manure for fields of stubble being grazed in the off season; and (b) official records tend to undercount the livestock that pass along informal channels (Rep. Mali, 2016).
- 5 This process has also been documented, in detail, for villages in western Burkina Faso (Gonin et al., 2019).
- 6 Tabaski is the term used in the Sahel for the feast of Eid al-Adha, the feast of the sacrifice, commemorating Ibrahim's willingness to sacrifice his son Ismael to Allah.
- 7 For example, cattle sold in Niore were sent to wholesale market in Kati, then exported to Abidjan (a distance of more than 1,500km, with a border crossing) yet even with all these costs, herders go 61% of the final price. Most of the costs in the marketing chain were transport: intermediaries realised margins in total worth 8% of the final price (Median values, 2005–2015; Santara et al., 2013).
- 8 Hawala, from the Arabic for transfer, refers to transfers made between brokers who work on trust and honour: it can be a very low-cost way to transfer money over large distances.
- 9 This is an abbreviated schema and refers only to financial agencies that retail financial services directly to the public. A more complete schema would have the central banks at the apex, and would include finance houses that provide services – wholesale – to retail agencies.
- 10 In different documents it is spelled differently, Neyral or Nayral.

- 11 In comparison, it appears that men can borrow up to US\$5,000–10,000, though this depends very much on the kind of business or activity in which they are involved (as reported by respondents during the study).
- 12 This does not mean that costs are low in marketing chains. Transport can be costly because of the long distances between rangelands and cities, including rough roads. Costs can further rise due to side payments demanded by officials who check traffic. Regardless, the point is that studies from Kenya and Mali show the total cost of intermediation within marketing to be modest – typically around 10% of the livestock’s final cost.
- 13 Some traders do belong to associations that may offer their members loans, particularly when the trader has suffered losses by no fault of their own. It is a moot point as to whether such financial help is formal or just part of the web of informal dealings that come with being a working trader.
- 14 Survivor bias affects the sampling for interviewees; we did not go searching for people who had been traders but had failed; we looked for those active, those who had had a measure of success.
- 15 Bank managers who socialise with their customers, go to the same Rotary Clubs, attend the same church and so on are much more likely to find ways to help borrowers in trouble to stay in business.
- 16 Indeed, prices of red meat were quite low. For example, in Bamako, prices were under US\$5 for a kilo of beef without bone. In Mali, competing meat and fish were the reason for this, as their prices set the ceiling for the price of beef and mutton. Most consumers have low incomes, are price sensitive and will not pay more for red meat than they will pay for chicken or fish. Imports of frozen chicken pieces and canned or dried fish are cheap.
- 17 However, insurance needs to be broken down by the degree of risk. Catastrophic losses can rarely be covered by personal savings or the generosity of friends and family. To cover those risks, most people with high incomes are quite prepared to pay premia year-in and year-out against, for example, their car crashing or the house catching fire.
- 18 See Thébaud et al. (2018) for West Africa examples.
- 19 One informant commented that, for West Africa, too many NGOs had bypassed local authorities in their field operations, contributing to the general under-development of local government. This was doubly regrettable in places in conflict or with a high risk of conflict; the dialogue that promotes social cohesion must take place through village and municipal forums.
- 20 More formally, most are toll goods (a specific type of public good) because the public provider can exclude those unwilling to pay for their use through a levy on the livestock.
- 21 This reflects what, by now, is quite a long-standing apprehension (see, for example, Matin et al., 2002) among thoughtful observers of financial services: that while some people on (very) low incomes may benefit from a loan, many more are not in a position to take on any more debt than they already have. What they need, argue observers, is (social) protection.
- 22 <https://www.ilri.org/news/ilri-launches-new-drought-index-insurance-resilience-sahel-and-horn-africa-project>.
- 23 Schemes to index insurance may not work in the way that some of the creators expected it to, which is as a private good. Indexing, however, can be an excellent way to increase social transfers when index thresholds have been passed.
- 24 Even fewer had an account with a bank or microfinance agency and usually it was only to save small sums or to hold a little cash. Very few indeed were using formal credit regularly to run their business.
- 25 This was pointed out many years ago by Albert Hirschman when he discussed the merits of trait-taking or trait-making development projects (Hirschman, 1967).
- 26 For example, for Mali, see USAID (2018).
- 27 For a very recent example, see the abattoir at Moundou in southern Chad – <https://tchadinfos.com/tchad/tchad-labattoir-de-moundou-pret-pour-etre-inaugure/>.
- 28 For an early collection of evidence on this, see Sandford (1983).

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ANNEX

**THE SEARCH FOR
BETTER RURAL
FINANCIAL
SERVICES**



For decades, much has been done to try improve rural financial services. In the 1960s and 1970s **state banks and financial agencies** supplied credit and sometimes insurance to farmers, often with a subsidy. Ohio State University research showed that not only did such efforts usually fail – and at very high public cost – but they also undermined the development of commercial services by creating webs of political patronage, corruption and a general culture of credit delinquency.

By the 1980s, most countries had abandoned state provision, hoping that **financial liberalisation** would lead private banking to supply services. That failed as well, largely because most banks and private financiers encountered very high transaction costs in rural markets.

Microcredit initiatives multiplied in the 1980s. They offered services based on procedures designed to meet the needs of customers on low incomes whilst keeping down transaction costs. One in particular, the Grameen Bank of Bangladesh founded by Professor Yunus, was heralded as a breakthrough. Grameen was able to lend successfully to people on very low incomes in rural Bangladesh by applying ferocious disciplines of group lending whilst keeping down staff costs through the cult-like indoctrination of field workers expected to work all hours in the service of the bank and the poor. Grameen was more than a model of how to lend with set procedures – it succeeded because of a remarkable, and hard to replicate, culture that was inculcated in staff and customers. Not surprisingly, naïve attempts to imitate the Grameen bank in other places, without the visionary drive of Professor Yunus, often floundered.

That did not prevent microcredit – and more widely microfinance – from succeeding. Lessons had been learned about low-cost lending, but they were not always applied to benefit those on low incomes. Microfinance managers could see they had a competitive advantage in their low costs, but took this to cater to people of modest, but solvent, means. This reached its zenith in Bolivia, where loans to urban consumers to buy fridges and televisions burgeoned, eventually overreaching to create a credit bubble that duly burst and bankrupted many of the microfinance agencies involved.

Since the 1980s many attempts have tried to expand, improve and modify microfinance to reach rural people on low incomes, although very few have been able to provide finance to farmers and herders. Some commercial banks have adopted microfinance principles, which have manifested in **agency banking** that caters to the emerging market of informal and small-scale businesses – but they still focus on those businesses seen to be profitable, rather than the businesses of people on very low incomes.

At the same time, efforts have been made to improve and scale up **village financial institutions**, such as rotating savings and credit associations (RoSCAs) and, on a larger scale, village savings and loans associations (VSLAs). The hope was that clustering such associations in federations might reap the economies of scale, and that federated and formalised local groups might become a channel to inject formal finance into the rural economy. Not much evidence exists that either of these have been successful; confederation can weaken the personalised trust of village groups, whilst the premature injection of cash can result in rash lending, corruption and theft.

Another development has been **supply-chain finance**. This is where financial development focuses on just the needs of producers and traders in specific supply chains and, above all, their need for credit. The ties between farmers, traders, processors, exporters and so on can be used to cut transactions costs, especially in the supply chains where all parties are

bound by contracts, frequent transactions and ties that generate information and trust. Plenty of examples show this can work, but supply chain finances only provide a limited range of services, and only to people whose livelihoods are embedded in those chains. Relatively few farmers and herders are that closely connected to others in the supply chain – it is not that they do not sell into the chain but, rather, that they do so in less closely coupled supply chains, where links to individual traders and processors are not as frequent and intense as those in chains where contracting is common.

Since 2000, some innovations for rural finance have taken advantage of **digital technologies**, especially mobile phones. The M-PESA model of money transfers succeeded in Kenya, and has subsequently been widely copied. M-PESA allows money to be moved around readily; it can be used to pay bills; and it can deliver cash transfers. It may even help deliver insurance down the line and generate information to reduce the costs of credit.

Useful lessons about how to deliver financial services have been learned in the last three or more decades, but much remains to be done before most rural households can readily access low-cost and reliable ways to save, to insure, to transfer funds and to obtain loans. There have been numerous initiatives to create services, and given the size of the financial market – and the potential profit – the proliferation of many more can be expected.

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Cover: Sheep and goats taking water while in transit, NE Kenya. Photo: D. Radcliffe/Mercy Corps, 2011



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