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Strengthening Peace and Resilience in Nigeria (SPRiNG)

Pastoralist Practices in Nigeria in 2024-2025 and Their Relevance to Conflict

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April 2025

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Acknowledgements

This report was written by Roger Blench and Umar Hassan.

The Authors extend their gratitude to Adam Higazi and Christina Hildrew for their invaluable contributions in reviewing the report.

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This report was produced with financial support from the UK Foreign, Commonwealth and Development Office (FCDO). Its contents are the sole responsibility of the authors and do not necessarily reflect the views of the UK Government.

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The Strengthening Peace and Resilience in Nigeria (SPRiNG) Programme is a four-year (2024-2028) UK-funded initiative designed to support a more peaceful and climate-resilient Nigeria. SPRiNG is grounded in a politically informed, evidence-based approach that integrates environmental science, political economy, and conflict analysis. By addressing the root causes of conflict and vulnerability, SPRiNG works to reduce violence, strengthen local systems, and promote inclusive governance across conflict-affected areas in North-West and North-Central Nigeria. The programme is implemented by Tetra Tech International Development in partnership with Nextier SPD (Nextier), the Centre for Democracy and Development (CDD), and the Centre for Humanitarian Dialogue (HD).

April 2025

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Glossary

This glossary defines some specific terms regarding landscape and rainfall regimes as the Lead Authors intend them to be interpreted in the context of this report.

Term	Meaning
Adventives	Plant or animal which is not native to a place but is either locally or temporarily naturalised
Alluvial	Soil created when rivers deposit sediments—such as sand, silt, clay, and gravel—in floodplains, deltas, and other areas
Ferruginous	Soil which contains iron, giving it a rusty colour
Montane	Mountainous
Savannah	Grassland, typically with sparse tree cover in hot countries, and commonly referring to Africa. *Derived savannah* is a grassland created by humans through long-term deforestation
Sahel, Sahelian	Ecological zone, usually referring to Africa, where the rainfall is 200-700 millimetres and vegetation is extremely sparse and heat-adapted

Acronyms

ADP	Agricultural Development Project
AfDB	Africa Development Bank
CBO	Community-Based Organisation
CORET	Confederation of Traditional Stock Breeders Organisations
ECOWAS	Economic Community of West African States
FCT	Federal Capital Territory
ILCA	International Livestock Centre for Africa
ISWAP	Islamic State - West Africa Province
ITCZ	Inter-Tropical Convergence Zone
JDPC	Justice, Development, and Peace Commission
LFN	Laws of the Federation of Nigeria
LGA	Local Government Area
MACBAN	Miyetti Allah Cattle Breeders Association of Nigeria
NCNE	National Commission for Nomadic Education
NGO	Non-Governmental Organisation
NLPD	National Livestock Project Division
NTR	National Transhumance Routes
PA	Protected Area
PRESCOM	Presidential Committee on Small Arms and Light Weapons
RFGRDI	Reube Fulani Global Rights and Development Initiatives
SLDP	Second Livestock Development Project
SPRiNG	Strengthening Peace and Resilience in Nigeria
UPE	Universal Primary Education

Executive Summary

This report examines and documents the variety of Nigerian pastoralist practices based on fieldwork conducted across multiple states in 2024. It reflects on how pastoralists are adapting to changes in ecology, security, demography, and economy, among other factors, and the implications of such adaptations, including conflict dynamics. The research was commissioned by the Strengthening Peace and Resilience in Nigeria (SPRiNG) Programme, a four-year UK-funded initiative designed to support a more peaceful and climate-resilient Nigeria. This report should be read together with SPRiNG's *The Evolution of Nigerian Farming Systems in Relation to Farmer-Herder Conflict* report.

The research underpinning this report was conducted between June and July 2024 across 12 States.[1] Findings were revisited and updated in April 2025; they build on significant insights from previous surveys conducted by the authors. Interviews were primarily carried out with pastoralist non-governmental organisations (NGOs) and community-based organisations (CBOs) and field trips were conducted to regions considered potential conflict sites. A comparable survey was conducted among farmers in approximately the same areas to provide a complementary picture.

Key Findings

Nigeria has around 20 million head of cattle – not large by African standards, but exceptional given that comparable countries (i.e., Sudan, Chad) have relatively low human population densities. The majority of Nigeria's cattle, sheep, and camels are in the hands of pastoralists, most of whom move for at least part of the year. Paradoxically, the expansion of settled farmers has instigated greater levels of migration as herders need to avoid crop damage in both seasons. The expansion of farms, predominantly in the Northern third of the country, has significantly increased ecological degradation, leading to pasture replacement and subsequent woody shrub invasion. This has in turn been responsible for a significant relocation of the national herd over recent decades, such that the majority is now located in the subhumid and Northern humid zones. Such a situation has required the interacting populations to adjust quickly to a rapidly changed environment. It is therefore unsurprising that this has not always occurred smoothly.

Failure by government to both capture these changes in quantitative terms and to make policy adjustments based on empirical data have evidently not helped the situation. It remains the case that the vast majority of herder-farmer conflicts originate from resource conflicts, typically characterised by cattle entering farmers' fields and farmers encroaching on water points. Although a system of stock routes and grazing reserves[2] exits to reduce potential flashpoints for crop damage, it has faced encroachment in many areas, sometimes with the direct support of state authorities. This fosters a climate of distrust over time. Urban commentators have interpreted these conflicts as political and religious in nature and reported them on social media, which risks stoking antagonism towards herders.

Against this backdrop, the political context has hardened. A series of initiatives to prohibit open grazing has been proposed and sometimes enacted in some states. They continue to be the subject of legislative controversy. Since 2015, there has been a significant uptick in levels of banditry, especially kidnapping, abductions, and cattle theft. Rhetoric has dangerously begun to conflate 'Fulani' – traditional cattle herders – with 'bandits.' In addition, insurgency raids – often occurring cross-border – have increased in intensity, especially in the Northwest.

Overall, outcomes for pastoralists have been generally negative. The survey noted:

a) A highly significant increased incidence of ecological degradation, exacerbated by climate change.
b) Widespread economic disempowerment of pastoralist women due to the decline of dairy production, leading to poor nutritional outcomes for women and children.
c) A significant spread of synthetic opioids among both herders and farmers, leading to heightened conflict and confrontational behaviour.
d) Further diffusion of heavy weapons in conflict zones, increasing incidents of civilian harm.

Despite an array of initiatives to endeavour to achieve peace between communities, the study documented that they have had little discernible impact. Many of these efforts are not based on in-depth, local knowledge, but rather are solutions imposed from the outside. Nonetheless, there are many areas where NGOs and CBOs could act to defuse tensions. Recommendations for doing so include:

[1] States included Kaduna, Kano, Jigawa, Gombe, Plateau, Benue, Cross River, Edo, Ogun, Oyo, Kwara, and Federal Capital Territory (FCT).
[2] See, Blench et al. (2025) *Survey of Grazing Reserves, Stock Routes, and Pastoral Resources in Nigeria*,

i) Develop agropastoral systems (i.e., those where the producer has a smaller, more productive herd integrated with cereal production);
ii) Map and demarcate the stock routes and grazing reserves system and undertake refurbishment where feasible.
iii) Revitalise the nomadic education system, which has lapsed in some states.
iv) Encourage a live fencing system for farmland, which has potential to reduce cattle incursions.
v) Create more effective information sharing systems. Communities are often unaware of events and policy beyond those of immediate concern. A broader vision is essential in engaging with pastoralists as remote events frequently affect local interactions.
vi) Encourage and train pastoralist women to participate in and form CBOs to promote their specific interests.
vii) More effectively use vernacular media to communicate analysis and information to all parties in conflict settings.
viii) Develop a social media strategy both to strengthen advocacy, promote the requests of local advocacy groups, and respond effectively to public queries.
ix) Assess systematically the role of traditional leaders in both conflict reconciliation and escalation and disseminate lessons learnt.
x) Develop a regional database of trusted interlocutors, especially among pastoralists.

Introduction

Since the 2001 Jos crisis, Nigeria has seen a marked increase in conflict between farmers and the pastoralist Fulani, traditional cattle herders whose herds have grazed in the semi-arid region for centuries. With the changing ecology and security environment since the colonial period, herders have moved South to exploit the rich grazing offered by the higher rainfall zones. This was enabled by a combination of reduced fear of attacks on herds and advancements in veterinary services protecting the cattle against infection diseases, such as trypanosomiases. This changed migration pattern is linked to a dramatic rise in resource conflicts, which have become more numerous, widespread, and violent.

The situation in Nigeria is not disconnected from the broader West African context. Deadly conflicts between herders and farmers have been reported in several Sahelian countries, although the comparatively lower population densities have meant that the incidence of conflicts is lower. Higazi (2018a) completed field studies in a sample of pastoral countries in West Africa, which at the time possessed both a mosaic of policies and a variable incidence of issues. Growing insurgencies in the Sahel and the departure of three major states from the Economic Community of West African States (ECOWAS) (i.e., Mali, Burkina Faso and Niger) – a guarantor of free movement across borders – has had significant impacts, including on potential migration patterns across the region.

Given its aim to reduce levels of conflict between herders and farmers, the UK-funded SPRiNG Programme commissioned a study of the state of Nigeria's pastoralism and farming, in the context of a lack of baseline information and a changing economic, political, and environmental landscape. The survey took place between June and July 2024 and a research report was drafted between August and September 2024. Researchers visited most states where security was considered acceptable to interview pastoralist organisations, individual herders, and government bodies concerned with livestock. Notes, photographs, and interview list from the fieldwork are available upon request.

This study's results should be read in the context of two complementary SPRiNG reports, *The Evolution of Nigerian Farming Systems in Relation to Farmer-Herder Conflict,* and *Survey of Grazing Reserves, Stock Routes, and Pastoral Resources in Nigeria.* In addition, there is a substantial body of literature on pastoralism in Nigeria. The Lead Authors have contributed to these works and others, which are referenced in the References section and utilised as points of comparison in the text.

The structure of the paper is as follows: **Section 1** introduces Nigeria's climate, rainfall, and vegetation, paying particular attention to the river systems and wetlands as these have played a crucial role in herder migration patterns and thus conflict dynamics. This is followed by **Section 2**, summarising the farming systems in current use. **Section 3** covers the broad pattern of pastoralism in Nigeria, with focus on the Fulani, historical and contemporary herding systems, and livelihoods. **Section 4** details the stock routes and grazing reserves system, since these were intended to support separation between herders and farmers.

The general issue of conflicts between pastoralists and farmers is described in **Section 5**, while **Section 6** addresses civil insecurity. **Section 7** outlines the linkages between drugs, farming, and conflict. **Section 8** explains how pastoralist associations have seen a significant increase in their number and as well as greater diversity of their goals in the past decade. **Section 9** covers the broad area of education programmes designed for migrant pastoralists, and aspirations for literacy especially. **Section 10** looks at the role of religion in shaping popular stereotypes of pastoralism, since these are influential in policy design.

Responses to conflict are covered in **Section 11**, moving from the traditional authorities at village level to the police, army, vigilantes, and other elements of what is a diverse landscape. **Section 12** discusses policy responses at the level of government and of peacebuilding organisations. The role of information and communication is described in **Section 13**. Finally, **Section 14** looks at climate risk and potential of satellite imagery for forecasting trends. The final section of the report details recommendations for action. These should be regarded as provisional, since many proposals are still under consideration in this area.

1. Climate, Ecology, and Environment

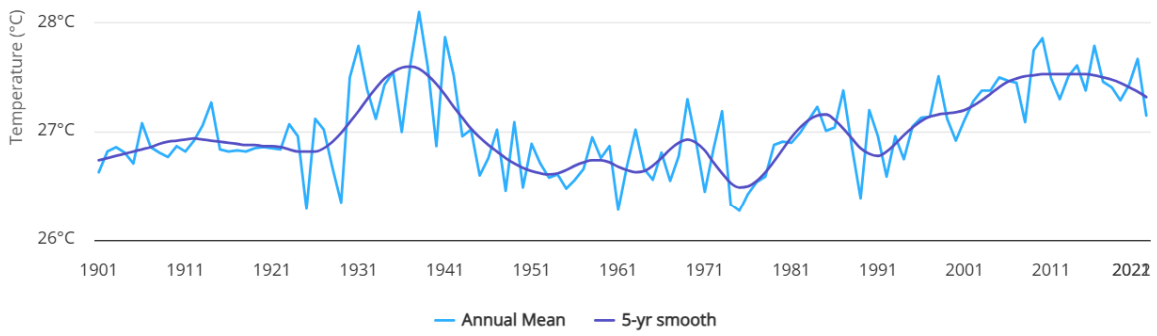
1.1. Climate

Nigeria occupies 923,768 square kilometres (FOS 1989) and is a country of marked ecological diversity and climatic contrasts. A useful description of the overall physiography is Buchanan and Pugh (1955) largely reprised in Udo (1970). The only published atlases to cover its major ecological features are Federal Surveys (1978) and Barbour et al. (1982). Together with the Lake Chad Basin, these rivers constitute the major drainage basins of the country. The other major topographical features are the highlands of the Jos and Mambila Plateaux, which, despite occupying a relatively small area, are of considerable significance to the livestock populations. Google Earth Engine is one way of assessing rapidly the ecological change over the past four decades.

Nigeria's climate is determined largely by the seasonal movement of the Inter-Tropical Convergence Zone (ITCZ), which leads to contrasting dry and wet seasons and a marked North-South rainfall gradient. Northern areas receive substantially less rainfall and have a much shorter wet season: mean annual rainfall is less than 500 mm in North-Eastern Nigeria, with only two months a year receiving above 100 mm. Rainfall patterns are modified in the centre of the country by the Jos Plateau. To the South-West, precipitation rises to 1,500-2,000 mm annually. Such variation is less significant in the South because of the proximity of the Atlantic Ocean; however, the North suffers from the periodic droughts that are an increasingly familiar characteristic of more arid countries of the Sahel. There were droughts in the mid-1970s, 1980s, and in 1989-1990 (Shiru et al. 2019).

Although there has been significant discussion about climate change and its impacts in Nigeria, the scarcity of reliable records from around 2000 makes many of these arguments difficult to sustain. Dinku (2019) provides a useful overview of the availability and quality of climate data in Africa which demonstrates the problem is now prevalent in many African countries.[3] Nonetheless, Nigeria has undoubtedly seen a significant run of high temperatures in recent years. Figure 1 shows mean temperatures for Nigeria over the period 1900-2022.

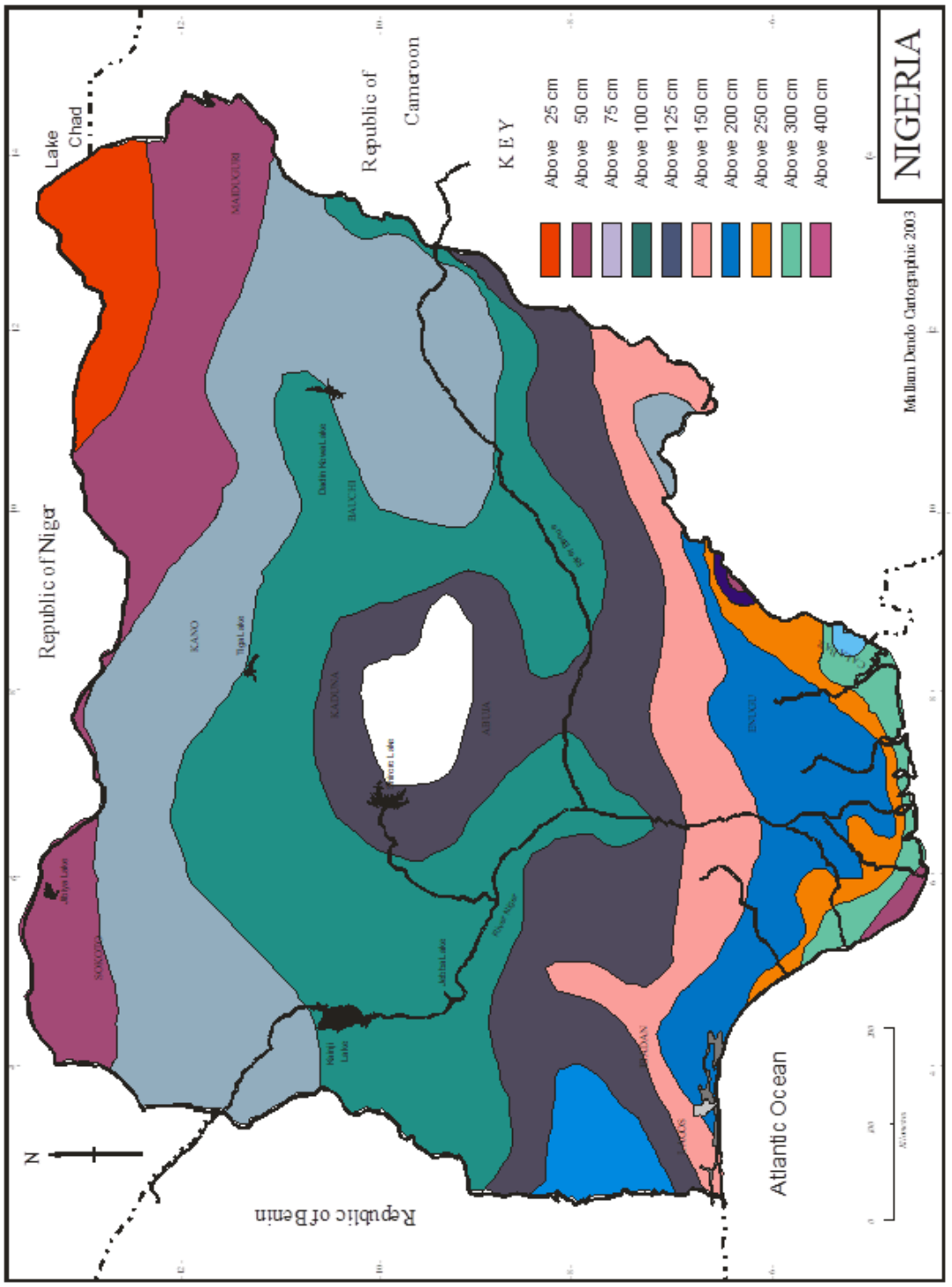
Figure 1. Temperature in Nigeria (1901-2020)



Source: World Bank Group[4]

[3] See also Doherty et al. (2022) for an overview of West Africa and projections concerning future climate risk.
[4] World Bank 2025. *Climate data – historical: Nigeria*. Climate Change Knowledge Portal. Washington, DC: World Bank. Retrieved from: https://climateknowledgeportal.worldbank.org/country/nigeria/climate-data-historical#:~:text=Mean%20annual%20temperature%20for%20Nigeria,annual%20precipitation%20is%201%2C165.0%20mm.

Map 1. Rainfall in Nigeria



This indicates that temperatures have been rising steadily since the 1970s and that there was a spike in the 1930s, (i.e., nearly a century ago). The period since has seen massive deforestation, which is related to rising temperatures, suggesting the current high mean temperatures reflect these anthropic effects. Similarly, flooding has increased, leading to loss of life and property (see Nkwunonwo 2016 for a review of increased flooding risks). The complete stripping of gallery forest along all major river basins is expected have this effect without any exterior factors.

1.2. Vegetation

Nigeria's natural vegetation reflects its climatic and topographic diversity (see Map 1). Paramount influences are the rainfall gradient, the minimum relative humidity, and the length of the dry season. As a result, dominant vegetation

types range from the dense mangrove forests of the Niger-Delta and the Southern rainforests to the North's dry grassland, to also include montane grasslands on the Jos and Mambila Plateaux.

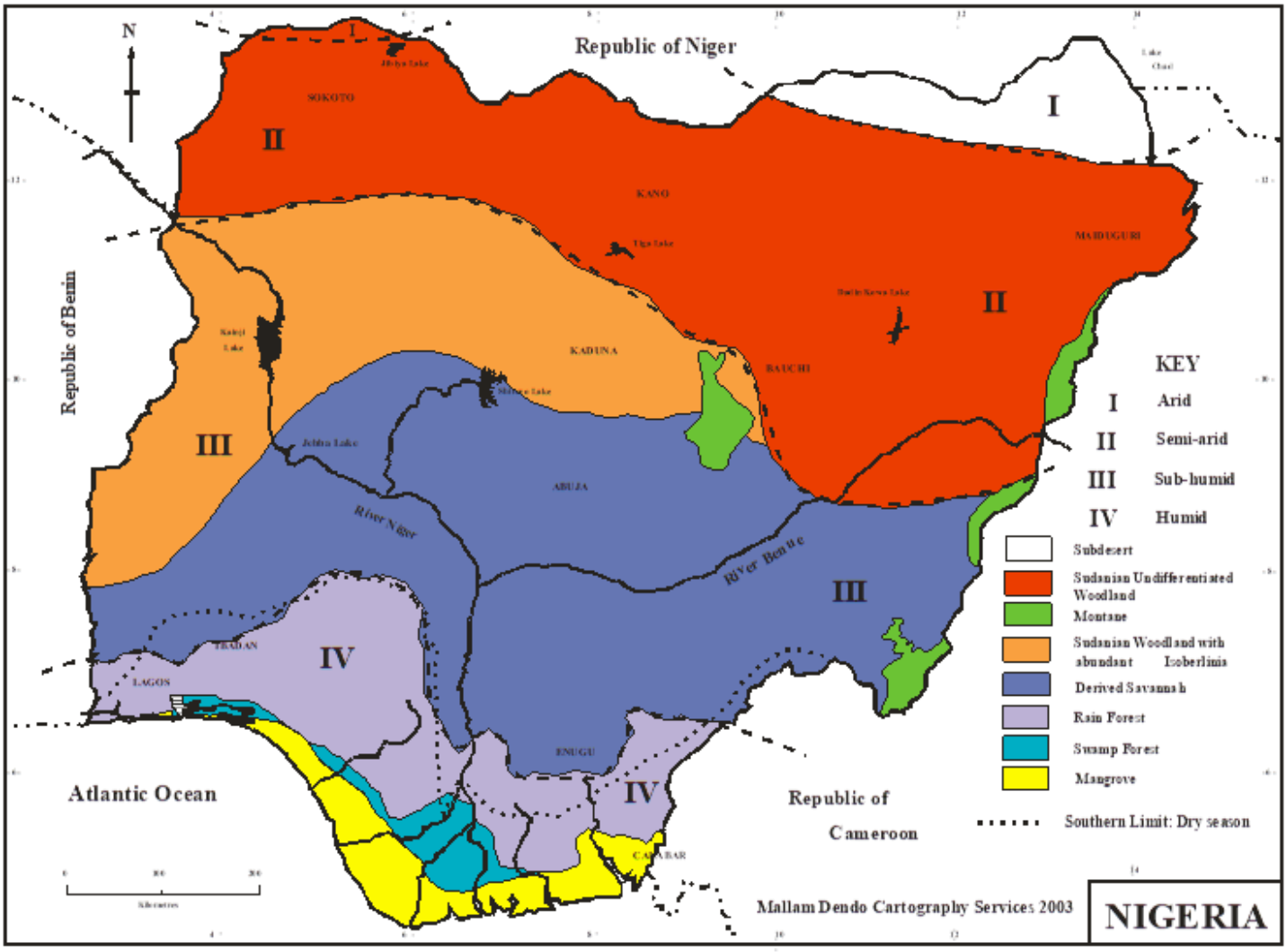
Natural vegetation is locally variable, with abrupt transitions between these categories. All formal classifications speak to the influence of human-induced actions on the natural environment. Encroachment into natural vegetation by active cultivation has created several transitional or derived vegetation types. Vegetation tends to consist of local constellations of natural and transitional species interspersed with areas of cultivated or fallow land. Cultivation and the associated transitional ecotypes are now the dominant form of vegetation and land use. The period between 1980-2000 saw some of the most persistent deforestation in Nigerian history (Oyetunji et al. 2020). The environmental consequences are beginning to appear, with reduced river flows, siltation, flooding, and erosion. From 2001 to 2023, Nigeria lost 1.33 M hectares of tree cover, equivalent to a 13 per cent decrease in tree cover and 724 M tons of carbon dioxide equivalent emissions (World Resources Institute).

Tree cover is classified as either woodland or closed canopy forest. Woodland occupies 41 per cent of the country, extending southwards from 11°15'N to the Atlantic coast in the South-West and to the edges of the Delta in the East. Layered forest also occurs in Taraba State on the South-Western escarpment of the Mambila Plateau, although it is threatened by extensive dry season fire penetration. Changes in the extent and distribution of natural vegetation have affected the tsetse fly (*Glossina spp.*), the primary vector of animal and human trypanosomoses (Glover 1960; Bourn 1983; Blench 1995b). The history and socio-economic implications of disease control in Nigeria have been reviewed by Putt et al. (1980) who concluded that the severity and economic importance of trypanosomoses have declined over the years.

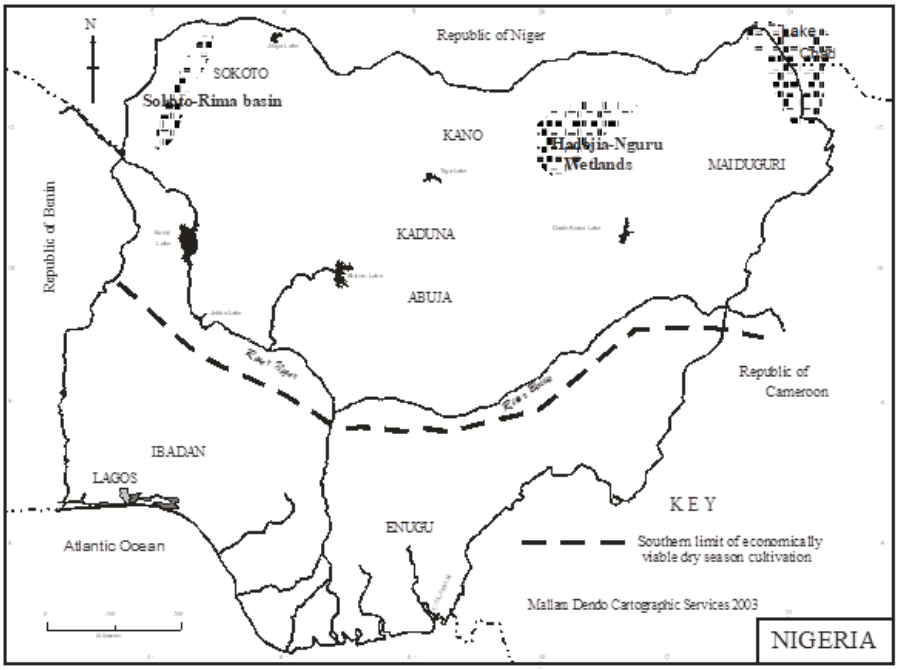
Much of Nigeria is semi-arid and subhumid and the country is generally well-watered. This has created large zones of pastureland attractive to herders. Map 3 shows the locations of the principal wetlands in the country, which are of economic importance for *fadama* cultivation (Akpata & Okali 1986). For farmers, this rich resource was formerly unusable paradoxically. Many low-lying areas adjacent to rivers were unexploited in Nigeria due to malaria and river-blindness. The elimination of these diseases has opened up extensive river basins to dry season horticulture. Only in the drier regions of the North, such as on the Sokoto-Rima and Komadugu-Yobe systems, was the North African *shaduf* used to lift water for horticulture.

The spread of the small petrol pump from the 1980s onwards has altered this pattern completely. The transformation of the Hadejia-Nguru wetlands illustrates this process. Originally a large area, it provided rich fisheries, pasture for livestock, and an important overwintering site for migrating birds (e.g. Adams et al. 1993; Hollis et al. 1993; Sule 1993; Thompson 1995; Okali& Bdliya 1997; Blench et al. 2003). Gradually, upstream abstraction of water for urban consumption in Kano State and diversion of water for irrigation schemes (Thomas & Adams 1999) reduced the wetlands to less than a third of their original dimensions, with a corresponding loss of livelihoods to its traditional inhabitants (who, being downstream in other states, received no benefits from the diverted water).

Map 2. Vegetation in Nigeria



Map 3. Locations of principal wetlands in Nigeria



The clearing of gallery forests, coupled with the availability of waterways and improved disease control, has made more wetland areas habitable. This has coincided with a growing urban population and increased demand for fresh vegetables and staples. The availability of affordable small petrol pumps has transformed this aspect of the rural economy since the 1970s. Originally promoted by a series of government-backed Agricultural Development Projects (ADPs) and first taken up on a large-scale by migrant Hausa farmers, the concept of irrigated contra-season farming through small-scale lift systems has spread widely across the river-systems of North-Central Nigeria and constitutes an important component of the rural economy. Indeed, it may be reaching a point in which water abstraction – particularly of groundwater – is now excessive, with reports of dry boreholes increasingly common.

Nonetheless, there are still some areas, especially in remote sites, where river floods remain minimally exploited. Land hunger in the semi-arid zones has prompted mass migration of farmers southwards, in both seasonal patterns and more permanent settlement. Many previously uncultivated areas in river floodplains are now farmed by migrants, leading to disputes with their traditional 'owners,' pastoralists, and fishing populations accustomed to unrestricted access.

1.3. Cultivation

Nigerian subsistence systems generally incorporate both pastoral and agricultural elements. Broad descriptive work on cultivation is more available than detailed discussions of cropping patterns. The companion report on the evolution of farming systems prepared for this Programme should be consulted for greater detail. Pastoralists exist in a dynamic relationship with farmers, both in terms of avoiding farmed land and in farming themselves. The herder whose household economy depends entirely on sales of meat and milk is increasingly rare. The increase in split herding, in which young men move about with the herd, leaving the remainder of the household in a fixed location, makes small-scale farming practical as it can be overseen by the family. Herders interviewed generally cultivated only staple grains, rather than the wider range of crops grown by farmers. However, the survey found that some Fulani in Plateau State had entered into Irish potato production, which has become a major regional cash crop. This illustrates the increasing flexibility required in responding to economic change and land availability.

All farming systems exist in dynamic relation with the surrounding bush. Forest trees are a source of firewood, browse, fruits, and other economic products and particular trees may be owned in otherwise untilled land. As the farms expand further into the bush, farmers are forced to compensate for the loss of economic production, especially through conservation of economic trees, leading to an evolution in farmed parkland. The expansion of cultivation and associated bush clearance is only one of the environmental consequences of the growing human population. Others include the increasing exploitation of natural woodlands for fuel and a reduction in the availability of grazing land to pastoral livestock. Charcoal production – not only for urban consumers but also for export to Europe – has contributed to loss of woodlands. Over-exploitation of one sort or another, especially in areas with irregular rainfall, high livestock populations, or intensive farming, are leading to increasing degradation and erosion.

2. Nigerian Pastoral Systems

2.1. Nigerian pastoralists

Pastoralists in Nigeria are commonly identified with the Fulani, but it is important to note that there are numerous other, lesser-known groups. Moreover, the southward advance of Sahelian vegetation in the North has recently attracted herders with livestock species specialised in woody shrubs (e.g., camels and goats), adding to the diversity. Table 1 details the wide array of pastoral peoples beyond the Fulani. Instability in Borno State over recent decades has almost certainly changed the demographic distribution of a number of these peoples. For instance, the Shuwa have been dispersed by attacks from non-state armed groups such as Boko Haram and the Islamic State - West Africa Province (ISWAP), forcing many to flee to neighbouring Chad (Higazi 2022b). Declared associations with Boko Haram among the Yedina may reduce risk of displacement (Magrin & De Montclos 2018).

Table 1: Pastoral peoples of Nigeria other than Fulani

Group	Location	Main Pastoral Species
Arabs		
Baggara	South of Geidam	Cattle

Group	Location	Main Pastoral Species
Shuwa	Eastern Borno/Cameroon	Cattle
Uled Suliman	Arc between Jigawa and Borno	Camels, goats
Kanuri Group		
Badawai	Central Borno	Cattle
Jetko	North of Geidam/Niger	Camels
Kanuri	Borno	Cattle
Koyam	South-Central Borno	Cattle
Manga	North-west Borno	Cattle/Camels
Mober	North-Eastern Borno/Niger	Cattle
Kanembu Group		
Kuburi	Extreme north-east Borno/ Niger	Cattle
Sugurti	Lake Chad shore	Cattle
Saharans		
Teda (Tubu)	Jigawa to Northern Borno/Niger	Camels, sheep
Berber		
Twareg	North of Sokoto/Niger	Camels
Others		
Yedina (Buduma)	On Lake Chad	Cattle
Almost all groups herd small ruminants		

The Nigerian Government has yet to promulgate policies to support non-Fulani pastoralists, although they are not specifically excluded from exiting policy measures. A Sahel-oriented NGO Tinitare in Jigawa State has established an office specifically to advocate on behalf of incoming camel pastoralists who are not catered for by the existing livestock administration.[5] Despite increasing levels of migration to Nigeria as a result of vegetational and climate change, these people lack visibility, rights, and access to services.

It should be emphasised that pastoralists are not the only people who keep cattle in Nigeria. Across the Middle Belt and the South, there is a tradition of keeping trypanotolerant taurine cattle (i.e., cattle without humps that are not milked). Their resistance to trypanosomoses (sleeping sickness in humans) accounts for their presence in humid areas where even zebu cattle cannot survive. However, taurine cattle were kept in the household and were not taken on migration, practices described in detail in Blench (1998a, 1998b, 1999). It seems likely they were far more widespread prior to the rinderpest epidemics of the 1880s but were outcompeted by the zebu cattle in many areas. The keeping of taurine cattle is in steep decline, but they can still be seen, for example, among the Tiv (Bohannon & Bohannon 1968) and on the coast, West of Lagos (RIM 1992).

2.2. The Fulani

2.2.1. Historical background

The Fulani (i.e., the FulBe people) are the best known and most numerous of all pastoral groups in Nigeria. Their primacy in the Sahel stimulated a series of French studies covering the different subgroups (Dupire 1962, 1970; Benoit 1979; Bourgeot 1981). They are described in several classic monographs, most notably St. Croix (1944), Hopen (1958), and Stenning (1959) who studied pastoral groups in the semi-arid regions. By contrast, there is

[5] Interview in Dutse, 3 July 2024.

relatively limited descriptive material of the humid and subhumid regions. However, Fricke (1979) in his study of pastoralism in Nigeria concluded from an analysis of tax and slaughterhouse records that there had been a general shift southward of pastoral herds. Awogbade (1983) described the Fulani on the Jos Plateau, while some of the papers in Kaufmann, Chater & Blench (1986) deal with pastoralists in southern Zaria.

The exact era when Fulani pastoralists first began to expand into Nigeria is unknown, but their traditions place their origin somewhere in the Fuuta Toro in Guinée in the 13th or 14th century. The Fulani were confined to the edge of the desert for a prolonged period. The factors preventing their southern expansion remain contested, but it is likely that attempts to move south from the semi-arid region would have resulted in major losses from the trypanosomoses. Prior to the spread of firearms in Nigeria, human population densities were low and wild animal numbers still high. Wild animals are the characteristic vectors of the tsetse fly, the natural habitat for which is gallery forest. This would have created a high level of tsetse challenge for the non-trypanotolerant zebu owned by the Fulani (Blench 1994, 1995b).

By the early nineteenth century, the Fulani had developed an urban, sedentary class, which especially included religious scholars. Their commitment to Islam and the dedication of their followers stimulated the development of an effective military machine. The so-called Jihad of Usman dan Fodio was successfully launched in Sokoto in 1804. By 1808, the Hausa kingdoms and several peripheral kingdoms, such as Borgu and Nupe, were taken by the Fulani. This rapidly accentuated the difference between the pastoralists (*FulBe na'i*) and the urban Fulani *(FulBe wuro*). The urban Fulani took on many characteristics of the peoples they ruled and gradually lost their language, although they have retained a cultural bond with the pastoralists which persists to today.

These writings have a specific feature in common – they cement the strong identification of Fulani pastoralists with 'the North', however vaguely defined, in the minds of both researchers and the Nigerian public. Their distribution and identity are described in greater detail by Blench (1984, 1985, 1991) who points out that the image of the Fulani as living in Northern Nigeria is becoming increasingly inaccurate, year upon year. Two major surveys commissioned by the Nigerian Government have contributed to a major reformulation of the pattern of Fulani pastoralism (RIM, 1984, 1989, 1992). Similar processes have taken place in Cameroon where the same dynamics are in play (Boutrais 1974, 1986).

One of the key effects of political and military expansion was to clear a way for the southward movement of pastoralists. During this period, herders could only exploit the pastures of the Northern wetlands (e.g., Hadejia-Jama'are River Basin) and the subhumid Middle Belt in the dry season. With the arrival of the rainy season, the bulk of the herds would be sent northwards into the semi-arid zone to prevent diseases carried by tsetse and other biting flies. After the pacification of the Nupe hinterland and the establishment of Raba as a capital of the Fulani in the 1820s, pastoralists began to migrate to the low-lying pastures along the Niger River (RIM, 1989). They may even have pressed further into the derived savannah of Northern Ọyọ, if Adams (1823:78) is correct in his reference to cheese-production in this region.

More attractive, however, were the high-altitude grasslands, since disease risks were lower and pastures more palatable for the zebu. Following the conquests of the Jihad, the Fulani began to settle the plains around the Emirate of Bauchi and advance up onto the grasslands of the Jos Plateau (Morrison 1982). A parallel expansion in Cameroon at the same time led to the gradual settlement of the grassy uplands and humid savannas throughout the nineteenth century (Kaberry 1960; Hurault 1964; Prioul 1971; Boutrais 1974). In the final two decades, these groups began to move westwards again and to settle in the Mambila and Fali Plateaux (RIM 1984; Blench 1991).

Box 1: The Mambila Plateau: A Century of Conflict

The Mambila Plateau, a high grassy upland in the South-East, is nearly ideal grazing terrain, with palatable grasses, high rainfall, and low disease challenge. It had been settled by the Mambila people who cultivate both its river valleys and, increasingly, its open grasslands. Percival (1938, cited in Rehfisch, 1974:11) dates the origin of the Fulani chiefdoms on Mambila to as far back as 1875. Although raiding may have occurred earlier, the establishment of permanent hegemony likely dates from the immediate pre-colonial period.

It may have reflected the need for more pasture after the rapid degradation of the highlands in North-Central Cameroon (Boutrais, 1974). Interviews in 1990 indicated that the first groups of nomadic pastoralists to reach the grasslands from Cameroon were the Rahaaji clan who arrived in approximately 1900, only a few years before the Germans. The ruler of Banyo surrendered to the Germans in 1901 and shortly after, several German expeditions reached the area (Rehfisch 1974:11). The grasslands were reconquered by British and French forces between 1915 and 1916 and after 1919 came under the British Mandate. Even when permanent authority was established,

the colonial policy of boosting the authority of Islamic elites meant that the administration of justice remained in their hands. This led to a century of poor relations between the two groups. Mambila interviewees complained to Migeod (1925:164,166) in 1923 about the Fulani allowing their cows to trample crops. He observed at the time that the laws were written in such a way as to favour the cattle-owner. The destruction of the green manure plant *yom* was a particular grievance, because without it the fertility of the land could not be maintained (LIDECO 1972). Rehfisch (1974:16) confirmed these reports.

Since the return to civilian rule in 1979, the rise to power of the Mambila people in Local Government has altered this pattern. The Mambila see themselves as landowners and the Fulani as intruders (Blench 1984). The historic process of customary courts dominated by an *alkadi* [magistrate] seen as sympathetic to herders has since ceased, with the Mambila using the authority of the Central Government to abrogate Certificates of Occupancy issued to pastoralists. Sporadic outbreaks of violence during the 1980s and 1990s culminated in a major clash in early 2002, when several Mambila villages were burnt down. Many pastoralists have since left the Plateau or converted their herds into cash and invested in transport.

Clashes have continued and there was another major outbreak of violence from 2017-2018.[6] However, according to Karkarna et al. (2020) another factor has entered the dynamic. Increased demand for blue sapphires has fuelled an expansion of artisanal surface mining, such that traditional land rights are being arbitrarily overridden in the quest for these minerals. The Mambila Plateau is an example of a high-altitude grassland that has the potential to be effectively managed for herders and farmers, however failures of policy and political will have rendered it unproductive.

The second impetus for southward expansion by pastoralists was the relative security of the colonial era. The threat of armed raids on grazing herds has been largely eliminated, a factor which, according to Awogbade (1983:8-10), had kept the herds off the Jos Plateau until the colonial period. This was combined with the growth of entrepôts around railheads and a parallel expansion of Hausa traders who created a market for dairy products and acted as entrepreneurs in the livestock trade.

More controversial is the role played by disease. There is little doubt that zebu cattle are progressively threatened by disease in more humid regions; however, the exact diseases and factors responsible remain disputed. The colonial regime instituted tsetse control measures and made available a range of new veterinary medicines. The tsetse control programmes themselves may have opened new pastures. Alternatively, the expansion of population in the Middle Belt coincidentally acted to eliminate both the vectors (by hunting out the wild animals) and the forest habitats (cut down for agricultural land) of the tsetse fly (Bourn, 1983). By the time Nigeria achieved independence in 1960, the Fulani had begun to stay year-round in the derived savannah North of Ọyọ town and to line both banks of the Niger-Benue system.

Between 1960-2000, expanded cultivation in the semi-arid zone took hold. The semi-arid zone has always been more populous than the Middle Belt, being home to towns central to the Hausa Emirates.[7] Estimates suggest that the human population of the Nigerian region may have been as low as five million in the late nineteenth century. This can be compared with 88.5 million in 1991 and 230 million in 2025, making it clear how pastoralists and cultivators could have co-existed in the earlier period. As pressure on arable land in the semi-arid zone ramped up, soil fertility declined. Farmers were obliged to move to regions of uncleared bush or to increase their holding size, a problematic strategy in most areas. This tended to exclude mobile pastoralists who traditionally treated uncultivated bush as a common resource. Pastoralists were then forced to seek new pastures, either further south in Nigeria or in neighbouring countries.

The common stereotype of Fulani migrations in the colonial period centred on seasonal movements between the semi-arid North and dry-season pastures along the Niger-Benue system (see Glover, 1960). With the rainy season, tsetse populations expanded, and herders were driven back northwards. Despite this, the gradual exploration of southern pastures led to some to discover methods of remaining in these regions year-round. Movement into the South-West was markedly earlier than in the Centre and South-East for both ecological and religious or cultural reasons. The climatic regime of the South-West is such that the derived savanna loops southwards West of Ọyọ, nearly reaching the coast in Benin and the Togolese Republic. This creates relatively open land without the high humidity associated with forests proper and therefore reduces disease risk facing zebu cattle. Combined with ecology

[6] https://en.wikipedia.org/wiki/Mambila_massacre#:~:text=Mambila%20massacre%20was%20a%20reported,herdsmen%20in%20Mambila%20Plateau%2C%20Nigeria.
[7] See density maps in Barbour et al. (1982), based on the 1963 census.

were cultural considerations, and Islam in particular. Islam is widespread among the Yoruba and dominant in Ilorin and the surrounding area where the pastoralists first entered the South-West. Since nearly all Fulani are Muslim, the potential for establishing exchange and relations with the local population was greater than further South, East and South.

This large-scale migration south was peaceful, and the government of Nigeria undertook efforts to facilitate movements by demarcating cattle routes and establishing grazing reserves both in the colonial and post-Independence eras. The migration took place in a period when the human population was still relatively small and land was freely available. Since Nigeria has a large urban sector which depends heavily on meat and dairy products, this was largely seen as beneficial to the overall economy. However, Nigeria has undergone rapid demographic change which now presents significant competition for land throughout the subhumid and northern humid zones.

The Northern, semi-arid, and Sahelian zones have always been more heavily populated; rapid population growth, together with climate change, has pushed herders further south. Inevitably, the pastoralist concept of free access to grazing, and the rivers upon which their lifestyle depends, comes into conflict with the ambitions of farmers who possess more fixed concepts of land ownership.

In the South-West, Fulani pastoralists were established early in the nineteenth century in the Borgu region. Its semi-arid savannas – sparsely populated between Ilorin and the Muslim courts of Nikki and Kande (in present-day Benin) – favoured large herds of *keteku* cattle (a stabilised cross between the zebu and the trypanotolerant humpless breeds). From there, the Fulani moved to the region around Ọyọ during the colonial period. Some community leaders claimed to have been born there in the 1930s.

Still further south, around Abeokuta,[8] there are two historical layers of Fulani; residents who have been settled since the 1960s and a second wave which followed the 1980s drought. During the first wave, some Fulani were brought to herd cattle owned by Yoruba businessmen, while others arrived as transhumant pastoralists. They no longer maintain large herds of cattle and have established permanent farms on which they grow subsistence crops. They take on herding contracts with local Yoruba cattle owners, working in exchange for milk and a share of the offspring. At present, Fulani are permanently settled around Odeda and Egbado. The second wave were not originally cultivators and today they maintain large herds, selling stock and dairy products for subsistence. A gradual integration continues along the same lines as earlier periods.

Apart from pastoralists, traders have realised vegetation's potential in the humid zone. The demand for meat in the urban centres of the South is such that there are now recognised locations for 'fattening herds.' These grassy patches within the forest zone are where cattle are kept to be fattened for market. This practice emerged with the premium price for fat stock, rising transport costs, and the economies of scale in herding proximate to markets.

This period of expansion – which began in the 1970s and accelerated in the 1980s and 1990s – is at the root of many of the contentious issues in the subhumid zone today. The Fulani mainly herd cattle, with small numbers of sheep and goats. The majority are seasonal transhumant, often moving south towards the river systems of Central Nigeria in the dry season (roughly December-April) and north when the rains bring fresh grass. Many Fulani keep a portion of their family further north and most families undertake minor cropping of cereals.

The traditional household economy of the Fulani was based on the sale of surplus milk and milk products, which are exchanged for cereals. However, milk is no longer the prestigious product it was. In addition, poor nutrition among cattle has caused a decline in milk yields, such that increasingly a herders' economy relies on the sale of surplus bullocks for meat. In addition, farmers valued cattle manure as fertiliser and would invite the Fulani to camp on their farm after harvest. The cattle ate the cereal stalks and fertilised the fields. These factors induced herders to increase their herd size and migrate into previously unfamiliar areas south of the Niger-Benue system. This had significant knock-on effects: farmers were increasingly not Muslim and lacked understanding of Fulani culture. Farmers grew yams and other crops which did not produce edible residues and did not require manure. Farmers did not drink or could not digest dairy products and were thus not interested in the main items herders had to sell. This meant the previous basis for co-operation between these groups gradually eroded, affecting levels of trust in turn.

Another important reason why conflicts emerged and persist is the difference in how land ownership and access are viewed in farming and pastoral societies. Broadly speaking, when a Fulani pastoralist grazes an area each year, and his rights are accepted by other pastoralists, he considers that he 'owns' or has rights over a piece of land. Farmers, who practise both shifting cultivation on rainfed lands and dry-season horticulture, however, only consider clearing and farming land as constituting ownership. As the need for arable land increases, farmers are clearing grazing land

[8] Interviews, 21st – 23rd July 2024

ever more frequently. Inevitably when a pastoralist returns to his traditional pasture and finds it being cultivated, he is aggrieved and his cattle enter the farm, either by circumstance or necessity.

2.2.2. Herding Systems

Cattle are the dominant species herded by the Fulani. Francophone literature confirms this is the pattern across West Africa and is remarkably similar in many places. Historically, cattle were a source of wealth and prestige, and cattle numbers were often prioritised over productivity. Most herds also include sheep, and less often goats, which must be herded separately because of their grazing behaviour. Donkeys, and sometimes camels in drier areas, are used as pack animals. Specialised sheep herders exist, known locally as the Uda'en, led by single young men, typically based in Niger. When modern veterinary medicines overcame the disease constraints of the pre-colonial era and demographic expansion had not eaten into available pastureland, herd sizes could reach thousands (RIM 1992). Relatively few of these were brought to market, a source of frustration to policymakers. Veterinary medicines were controlled by the Federal Government until the 1990s, but the importation of drugs on a semi-legal basis left animal health management in the hands of pastoralists.

Cattle in these numbers cannot stay in one place all year round, hence long-distance migratory patterns evolved – most typically shifting southwards in the dry season allowing grazing by rivers (formerly unfarmed) and then northwards in the wet season. Cattle would stay near the homestead, providing milk and meat and taking advantage of crop residues after the harvest. These migrations likely began in within Nigeria in the 1920s and expanded as vegetation was cleared and disease risk thereby fell. There were many variations on this pattern, but it functioned well. Low farmer numbers meant that cattle could generally avoid encroaching upon farmland and prompting conflict over potential crop damage.

Cattle were typically herded by young men who had grown up in the pastoral environment and were skilled in managing large herds. It was previously estimated that an individual, often called a *sawru* (stick, from the characteristic stick the herders carried across the shoulder), could manage 100 to 120 animals. However, seasonal migration patterns for many groups meant that the whole household would move; these were often encountered on major roads, visibly carrying mats to build houses and household utensils tied to pack animals. The motorbike has become an important substitute for the donkey in recent times, especially in the South, where donkeys suffer from humidity-related ailments.

This system, which still operates to some extent in eastern areas, such as Borno, Taraba, and Adamawa States, has largely eroded elsewhere. The expansion of farms has meant that it is impractical to keep cattle around the homestead in the wet season, so the herds are sent away, often north. In northern areas, this has meant crossing the international border into the Republic of the Niger,[9] while households based further south send their herds to less populated areas in northern Nigeria. Herders are extremely adaptable and may make radically different decisions year-to-year, depending on their calculus of rainfall, security, disease, and other factors.

Social change has also had a major impact on these patterns. As homesteads become more established – constructed with concrete blocks rather temporary mats – there is increased pressure for children to attend school. As older generations face longer life expectancy, there has also been a change in younger men accompanying herds south while elders stay at home, especially in the Centre-West of the country. This has been encouraged by two developments: the mobile phone and the opening of South-Western states. Mobile phones became increasingly common in Nigeria starting in 2005 and are now ubiquitous. They allow the herd owner residing up north to keep in contact with herders, who may be as much as 700 kilometres away. A specific visit was made in Katsina and Sokoto States in 2017 to discuss these issues with herd owners in Ọyọ and Ogun States (Blench & Hassan 2017). Perhaps unsurprisingly, the elders, who would have controlled this behaviour in the former system, remained unaware of the problems being caused by their children.

There have long been some herders in the South-West who generally live in harmony with their Yoruba neighbours. But the 2010s saw a major influx of 'new' migrant herds pushing further south in response to farm expansion in the North-West. They began to appear in Ọyọ, Osun, Ogun, and Ekiti (Blench & Hassan 2016). The young men were suddenly free of parental constraints in their home villages and behaved much like teenagers elsewhere. They went to town, took alcohol and drugs, and generally acted disrespectfully towards Yoruba farmers. The resident Fulani were often blamed for their misdeeds which caused significant friction with host communities. Moreover, many took up arms which led conflicts with farmers to often erupt in violence. In addition, they hired inexperienced non-Fulani to look after the cattle, leading to the encroachment onto farms and revenge attacks on cattle routes.

[9] Interviews in Kano (29th June – 1st July) & Jigawa States (2nd-4th July) 2024.

2.2.3. Social Systems and Livelihoods

The Fulani are characterised by a distinctive social system which is consistent across the Sahel region where they reside (Dupire 1970). The smallest unit is the *sudu*, or household, which builds into lineages and into the *lenyol*, or clan. The clan system has historically been a core element of identity, determining marriage alliances, breeds of cattle, migration patterns, and other behaviours. The clan is dwindling in importance, especially in the North-West where many Fulani no longer speak Fulfulde and have switched to Hausa. Individual households are independent, and, while they may move in groups, each makes its own decisions and can split and merge year on year. Fulani maintain a strict code of social behaviour, the *lawwol Pulaaku*, which determines how individuals must act towards one another and with outsiders. An aspect of this which farmers single out is the importance of revenge for wrongdoing, whether perceived or actual.[10] Once a clash occurs among farmers, it is resolved and effectively forgotten socially. According to Fulani, however, it must be avenged, leading to frequent escalation of incidents.

As the inception of the 1804 Jihad illustrates, Fulani are Muslims, though the nomadic subsection has always displayed their interpretation of Islam lightly given that herding entails flexible allocation of labour. Gendered division of labour, whereby women control milk sales and men mostly herd, implies independence, with flexibility afforded to women to partake in herding depending on the circumstances. The arrival of Izaala – a fundamentalist branch of Islam embraced by millions of Nigerian Muslims, including among some herding clans – has altered dynamics. It deems some traditional practices such as the use of herbal medicine and of Koranic charms as well as all ceremonies – including naming ceremonies considered essential in herder society – un-Islamic. Adherents are told that parents lack authority over their children and that they are no longer to listen to their elders. Moreover, Izala is in favour of literacy in both Arabic and Roman script for men and women. Despite this, strict dress codes for the sexes and their physical separation are promoted. Izala is not widespread among Fulani, but it has been very influential in North-West and Central Nigeria.

Another group known as Dar Assalam [also Darul Islam] has emerged which is distinct in several key respects: it is devoutly religious and nationalistic in its call for a return to the glorious era of Usman ɗan Fodio's conquest of Northern Nigeria.[11] Its members stem from the fundamentalist Izala movement, take religious observance seriously, and advocate jihad. Most importantly, it depends heavily on social media, operating via encrypted WhatsApp groups in the absence of a centralised structure. The group's activities are financed through kidnapping for ransom, although some of its younger victims are believed to have been recruited as child soldiers, inducted into the organisation through force. These sects are difficult to access but understanding of their ideologies is crucial at various levels of public policy.

2.2.4. The Changing Role of Dairying

Photo 1: Dairy sales in Hadejia, July 2024

Source: Umar Hassan

Fulani women have historically maintained a high level of independence. They were responsible for milking and processing milk into yoghurt (*nono*), butter (*nebbam*), and cheese (*wakashi*). Prior to the widespread penetration of the monetary economy, these products were exchanged directly with farmers for cereals. Cash transactions gradually replaced this, and these products were sold at market in distinctive calabashes. Money earned was then spent on household needs, such as food, clothing, and other items. Milk was once so abundant that crop farming was unnecessary. The sale of animals in the meat market was typically reserved for meeting unexpected expenses, such as medications, and ritual ceremonies, such as marriages.

[10] Lumping together all the diverse farming populations of Nigeria under a single label may be inappropriate, but this was stated in a scatter of interviews across the country.
[11] Our thanks to Rachelle Wenger for this information.

This pattern persists in some parts of the country (see Photo 1), but in many places has undergone vast transformation.[12] Most importantly, the relative value of milk and dairy products has plummeted. Milk was formerly the prestige drink served by rulers and offered on important social occasions. In most circumstances, it has been replaced by commercial soft drinks, reducing demand. Powdered milk and other industrial dairy product imports have dominated the market, although rapidly rising prices may reduce demand and strengthen local milk products' competition.

There have long been projects to create a more sophisticated (and diverse) system of dairying in Nigeria. In the colonial era, the potential to make butter was exploited during the Second World War when Nigeria exported butter in cans. Post-Independence, several modern dairies were established to source local milk for packaged milk and other products. These efforts struggled to compete with cheap imported powdered milk and with spurious claims about fresh milk on packaging. FarmFresh, a product of Integrated Dairies Limited in Jos, may be the sole survivor of these initiatives with its minimal production capacity.

There exists a slow yet heartening redevelopment of dairying through milk collection centres in various states. This may be the combined result of motorcycles and mobile phones innovations. In Kaduna, Plateau, Kano, Ọyọ, and potentially other States, local cooling centres have been established. Herders with milk to sell can phone traders who dispatch young men with canisters on the back of bikes, which can be quickly delivered and sold in urban centres. Whether this remains a small-scale enterprise is unclear, but its potential is great given that powdered milk is only affordable for elites. With the system currently wholly dependent on young men, it risks disempowering women who had previously been significant contributors to dairying.

3. Stock Routes and Grazing Reserves

3.1. The Stock Routes System

The stock routes system, *burti*, was designed in the colonial period to formalise pre-existing pastoral migration paths in order to minimise conflict with farmers. Stock routes and grazing reserves were given formal legal status in 1964. This system has been maintained since, its premise largely respected. It was given a boost with the National Livestock Projects Department (NLPD) which intended to gazette and beacon these routes. The NLPD received additional funding to complete a stock routes mapping in 2012, shown in Map 4. While responsibility for maintaining stock routes is legally ambiguous and contested between Federal and/or State authorities, its success depends on the consent of states.

There are three main types of stock routes:

Primary	National Transhumance Routes (NTR), which are interstate and cross international boundaries
Secondary	Intrastate routes connecting various grazing areas within a state (across all Local Government Areas) and feeding into NTRs
Tertiary	Intra-Local Government stock routes

Studies on transhumance stock routes conducted by the National Livestock Project Division (NLPD) under the Second Livestock Development Project (SLDP) have shown high levels of encroachment in all the three categories. The 2012 mapping of stock routes (see Map 4) was not succeeded by efforts to deal with encroachment, but rather the sale of the NLPD's heavy machinery required for this type of engineering, indicating a lack of commitment by the Federal Government.

A functioning stock routes system is essential for reducing conflict between herders and farmers, all the more crucial given human population growth. Yet, in many places these routes exist only in theory. In Southern states, the recent appearance of migrating herders has tested places where stock routes and grazing reserves were never formed. The alliance of Southern states which came together in May 2021 to oppose open grazing suggests that it would now be a herculean task to establish them.

[12] This purported to be a new milk 'marketing infrastructure' initiative announced by the State Governor, but turned out to be a ramshackle shed, surrounded by pools of stagnant water. Visit 3rd July, 2024.

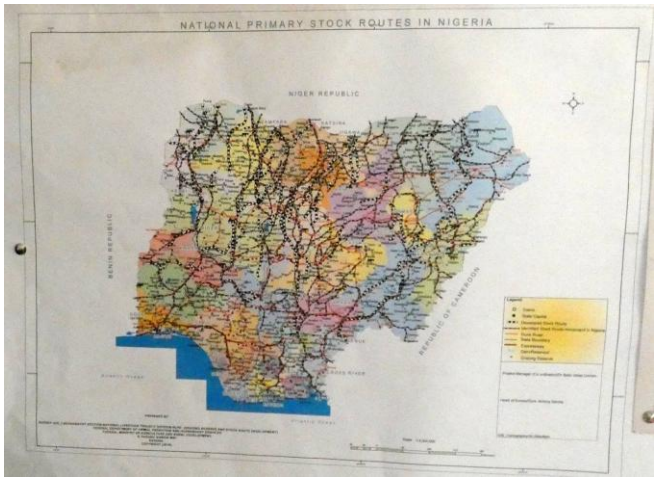
3.2. Grazing Reserves

The tradition of preserving portions of wild land is has long existed in African culture. Reserved forests – retained for either hunting or the gathering of non-timber products and usually surrounded by spiritual sanctions – were once common. The first reserved area, the Mamu Forest Reserve, was officially declared in 1889 before the Federal Republic of Nigeria was established as a buffer between the Ibadan and Ijebu territories. In the colonial era, a policy of creating forest reserves came about, typically reserving areas to restrict indigenous populations' rights to hunt, cut wood, or graze their livestock. In most cases, boundaries were simply declared through a notification system, until a legal process of gazetting was established. Later in the same period, policing strategies prevailed, with adjacent populations excluded from accessing these lands.

During this period, forest and game reserves were largely demarcated without the consent of or even in discussion with local communities. This may not have been as problematic as it would be today, in part because reserves were usually established where there was little or no settlements to avoid the financial and administrative costs of relocating entire villages. In addition, the lack of effective policing meant that hunting, gathering, and grazing continued unaffected by wooden signposts. Many Grazing Reserves emerged out of colonial-era Forest Reserves, and their boundaries evident on Ordinance Survey maps. In 1965, the Federal Government enacted the Grazing Reserve Law, which, among other provisions, required that a minimum of 10 per cent of the land area of Nigeria be converted to Reserves. The 1999 Constitution, as amended, officially transferred responsibility for the reserves to states, which is why conditions vary markedly from one state to another. Even so, the optimism reflected in the 1965 Act is far from today's reality (Okoli et al. 2022).

Within nation-states, there is often a clash of values systems between local communities who favour conservation to safeguard future resources and those outside state boundaries who seek to exploit resources for immediate gains. This 'Tragedy of the Commons' has shaped development projects which have begun to try to co-develop conservation strategies with local communities. Without communities' co-operation and active involvement, conservation projects risk failure, unless the State is willing to expend significant resources to policing it. However, involving local communities can also be complex; there is, for example, no guarantee that any type of pre-existing culturally sanctioned conservation ethos is present. Nomadic pastoralists who migrate once they have used or overused a pasture do not overnight become range managers. Agricultural peoples accustomed to cutting trees freely may not immediately embrace reining in such activities when trees still appear numerous.

Map 4. National stock routes in Nigeria.



Source: National Livestock Project Division (NLPD)

Photo 2: Disused ADB skills centre, Kachia Grazing Reserve

Source: Roger Blench

The broad concept was that a network of Grazing Reserves would be connected by stock routes, allowing migrant pastoralists to move between them. Reserves would be developed with water points and basic infrastructure. Farmers would not be allowed to cultivate land inside the boundaries, but herders could clear small farms. In some cases, it was proposed to develop planted pastures with agencies such as the International Livestock Centre for Africa (ILCA) involved in piloting different plant species. A major challenge was funding with neither the Federal nor the State Governments willing to allocate budgets sufficient for large-scale development. Hence, it was only when international donors stepped in that action occurred. This left empty reserve land attractive and seemingly available to smallholder farmers (and more recently businessmen and larger landowners), accelerating encroachment over time.

Beginning in the 1960s, the Federal Government invested in these reserves, constructing roads, water points, and other infrastructure and compensating farmers obliged to relocate. A variety of international and national bodies also invested in grazing reserves during the 1980s and the ILCA worked with Fulani herders to conduct numerous trials to improve pasture grasses and cattle nutrition. However, by the end of the 1990s, these efforts tapered off, and the process of gazetting reserves (i.e. giving them formal status) ceased entirely. There was no official explanation for this, but it occurred in parallel with a general decline in interest in pastoralism and the termination of funding for livestock projects. The African Development Bank (AfDB) invested in a vocational training centre in 2015 (see Photo 2). Since the adjacent road intended to allow its trainees to export their products was never constructed, it never opened.

Table 2 shows the estimated numbers and status of Grazing Reserves in Nigeria.

Table 2. Grazing reserves in Nigeria

State	Total	Gazetted	Not Gazetted	Total (Ha)
Adamawa	69	31	38	196,416
Bauchi	42	27	15	250,822
Benue	10	0	10	38,500
Borno	56	15	41	463,024
FCT	4	4	0	16,000
Gombe	23	4	19	76,378
Jigawa	02	2	0	13,555
Kaduna	7	1	6	129,112
Kano	2	2	0	900
Katsina	2	2	0	147,000
Kebbi	24	1	23	560,000
Kogi	5	1	4	20,775
Kwara	17	1	16	147,340
Nasarawa	7	7	0	128,000
Niger	18	2	16	104,309
Ogun	1	1	0	12,000
Ọyọ	2	2	0	10,000

State	Total	Gazetted	Not Gazetted	Total (Ha)
Plateau	8	1	7	132,000
Sokoto	15	8	7	88,783
Taraba	39	9	30	137,800
Yobe	28	17	11	263,208
Zamfara	37	6	31	669,212

Source: Data collected by Umaru Hassan

A few reserves, such as Kachia, have managed to prevent farmer encroachment and have thus become refuges for herders facing pressure elsewhere. Kachia has been the site of both donor-funded infrastructure development and research trials on its pasture. However, as community leaders say, “We cannot turn away our brothers,” resulting in heavy pressure on grazing and water. In many areas, State and Local Governments have authorised farmers to enter the reserves, effectively expelling the herders who had relied on the reserves for decades.

In the case of a reserve outside of Kaduna town, herders awoke one morning to bulldozers; state authorities had sold the reserve to property developers.[13] The value of land in peri-urban sites trumps the normal legal process in these instances. In some states, such as Jigawa and Kaduna, land has been sold to developers in violation of the Federal Grazing Reserve Law, with seemingly no penalties. As efforts in Kano State suggest, safeguarding reserves depends on the political will to enforce gazetting.

4. Conflicts Between Pastoralists and Farmers

4.1. General

Nigeria is distinguished globally as a country in which a large pastoralist population is endeavouring to sustain its functions within a densely populated nation-state. Nearly all Asian and most African pastoralists live in regions of low population density, such as Mongolia or Iran. Nigeria is estimated to have had a human population of 5 million in the immediate pre-colonial era, which made it possible for two entirely different production systems to co-exist with limited friction. Moreover, the tsetse constituted a limiting factor; pastoralists could not keep their herds alive in the tsetse belts, which in those days constituted the lower two-thirds of Nigeria.

Another unusual aspect of Nigeria is the limited presence of agropastoral systems. In many regions of the world, farmers retain small numbers of cattle for meat, dairying, and ploughing in the context of larger agrarian enterprises. Although farmers kept low numbers of small ruminants around the house, cattle-keeping was rare. Ploughing was only introduced in the colonial era, and meat and milk could be bought at the market. Farmers did invest in cattle, often buying animals and then handing them over to pastoralists to look after, returning after a year. In some areas, conflict caused a decline in trust resulting in systems collapse. The rapid fall in the Naira’s value caused both farmers and businesspeople to revisit the increased value of livestock and this study recorded many reports of an uptick in this sort of investment.

Nigeria has undergone remarkable demographic growth since 1900, with the human population now estimated at 230 million. Although there is considerable urbanisation, much of the population remains rural and subsistence crop farmers. Importantly, farming systems have not intensified substantially over the last century and staple crop production remains rainfed. Chemical fertiliser application is variable depending on subsidised imports, but in recent years levels have been low due to rising prices. As a result, farmers must develop increasingly more new land in order to achieve the same crop yields as in the past. Other factors, such as the decline of bees which pollinate crops and the removed of nitrogen-fixing trees, have exacerbated this situation. In many areas, new land is unavailable as ‘farms are everywhere;’ this makes migrating mobile herds problematic, especially where existing stock routes have faced encroachment. This contributes to a high level of conflict between herders and farmers.

4.2. Crop Damage

The single most important source of conflict between herders and farmers is crop damage. This occurs when migrating cattle enter farmland and trample crops. This most commonly occurs when cattle divert from stock routes. Farmers often encroach on stock routes, and the damage is done when cattle unexpectedly encounter a cultivated

[13] Interviews with herders, August 2017

field. Another typical event is when cattle drink along riverbeds and find the banks cultivated with vegetables in the dry season. Underpinning these conflicts are conflicting perspectives on land ownership. According to farmers, land ownership is achieved through cultivation, while pastoralists view ownership as consolidated by tradition. If one has been grazing herds in an area for some years, this guarantees one's rights. Responses to crop damage are complex and vary considerably by area (§10.). Broadly speaking, however, the issue can be resolved informally, usually through cash payments, if the herders and farmers are familiar with one another.

An important arena for conflict which has developed since the 1980s concerns dry-season horticulture along major river systems. Prior to this period, horticulture was based on the hand operated *shaduf* lift and was practised by a small number of Hausa farmers. When small petrol pumps were introduced, first by the ADPs and then by a series of Fadama projects (1992-2019), this spurred a significant transformation of the primary river systems and clearing of gallery forests (e.g. World Bank 2003a,b). Pastoralists traditionally moved down into the Middle Belt along the Niger-Benue to graze their herds in the rich and previously uncontested pastures. They began to find the riverbanks covered in small patches of horticulture. Inevitably, the animals entered the fields while trying to access the rivers and disputes arose (Blench et al. 2003; Blench & Hassan 2003; Blench, Daniel & Hassan 2003). Despite being advised of the potential for conflict in these studies, no action was undertaken to seek a resolution and problems persist.

In the South-Western states, a dynamic has developed during the 2000s connected with herd splitting strategies.[14] Pastoralists who live in the North-West, including Sokoto and Kebbi States, dispatch their herds South during the dry season, crossing the bridge at Jebba. Unlike other Fulani groups in Adamawa and Taraba who typically move in whole family units, these cattle are herded by young men who often hire unqualified assistants. They do not necessarily make links with the local communities or even the settled Fulani in the area. They are usually armed, either with swords, cutlasses, or rifles, and they are willing to use force in disputes. It is also widely claimed that they take drugs and visit towns for drinking binges. Almost all the crop damage episodes were attributed to this group. It is striking that the nomadic herders are not simply 'making mistakes' but appear to be intentionally causing harm – digging up cassava and yams and feeding it to their cattle, and often subsequently setting fields alight. Farmers who confront them are routinely attacked with machetes (cutlasses), swords, and handguns. Farmers have chosen a more passive method of striking back by poisoning the cattle, either by lacing cassava with rat poison or by poisoning water and grass along rivers and ponds. This indiscriminate killing further enrages both sides and is likely a contributing factor for broader attacks.

4.3. Game Reserves

Protected Areas (PAs), such Game Reserves such as Yankari (Bauchi State) and Gashaka-Gumti (Taraba State) are a particularly contentious issue (Blench 2019b). These are no longer managed by State Governments so the strategies for preventing encroachment and poaching are not necessarily consistent. Yankari was the subject of a 2019 study[15] and Gashaka-Gumti of several studies dating back to 2020 (Adam Higazi, Umar Hassan pers. comm.). Around Yankari, farmland encircles the reserve and serves as a magnet for herders, firewood gatherers, and poachers. The relationship between forest guards (who are armed) and those attempting to enter a given PA is best described as antagonistic. Whenever herders enter Yankari to graze and are subsequently caught, they are usually apprehended by police, only to be released through with the intervention of pastoralist leaders. This typically exacerbates, rather than resolves, conflict, with violence occasionally erupting between officials and herders.

The situation in Gashaka-Gumti is less fraught as some villages remain inside the boundaries of the PA and current managers (Africa Nature Investors) work to identify amicable solutions to prevent encroachment. Most other Game Reserves such as Kainji and Kamuku[16] have virtually no ranger capacity, enabling the prevalence of both poachers and herders. As pressure on land and grazing grows, the future of PAs over the long-term is being questioned.

5. Related Arenas of Civil Insecurity

By definition, pastoralists are mobile, and their herds are vulnerable, making them inclined to flee conflict areas. The rise of Boko Haram and ISWAP in the North-East compelled many herders to leave the region. During interviews in 2016-2017, conflict in Central Nigeria was attributed to the arrival of displaced pastoralists. They appeared seemingly overnight in States such as Bauchi and Nasarawa and were seen to have neglected the common courtesies

[14] Visits: Ẹdo State (17th-20th July), Ogun (21-23rd July), Ọyọ State (24-26th July), Osun (27th-29th) July 2024
[15] Blench (2019b)
[16] Kamuku Grame Reserve has become the unchallenged base for notorious bandit gangs

concerning the traditions of local herders and farmers. By 2024, it seems that some displaced pastoralists had returned to Borno and Yobe States. The difficulties of conducting fieldwork in these areas directly makes verifying the situation particularly challenging.

A general breakdown of law and order has followed the insurgency in the North-East as evidenced by rising levels of banditry, cattle-rustling, and kidnapping. Since the 2010s, banditry has significantly expanded in the North-West, most notably in Sokoto, Katsina, and Niger States (Momale 2016). This appears to have been sparked by raiding by motorbike gangs originating in neighbouring Niger and Burkina Faso and funded and armed by insurgent groups in the Sahel. They do not seem to possess particularly strong ideological motivations and are principally criminals. With time, these criminal groups have evolved into gangs internal to Nigeria which are funded by kidnapping for ransom and artisanal gold mining. Since 2018, the incidence of kidnapping has increased markedly in the country.

There has been a corresponding expansion of cattle rustling since 2011 especially, driven by a combination of youth unemployment, pastoralists who have lost their herds, and an environment of impunity. Given the lack of herding skills among farmers, it is believed that rustlers consist of gangs which either include or are predominantly Fulani who have lost their own cattle to criminal networks.[17] They connect to networks which transport the stolen livestock to large markets in the South where they disappear. Thus far, the government response has been insufficient as rustlers live in remote areas and are difficult to track and detain through conventional means, even if stolen cattle are transported across checkpoints and trafficked to urban markets. The unchecked growth of this practice, and the suspicion that powerful people may be behind the enterprise and are thus being protected, add to a climate of distrust.

6. Drugs and Small Arms

6.1. Drug Use

In interviews across all states visited during the study, the use of licit and illicit drugs was often mentioned as conflict driver. Hard drugs – such as heroin and cocaine – only found in major urban centres, while marijuana is common, cheap, and locally grown. The promulgation of synthetic opioids, namely Tramadol and Fentanyl, is a recent change. Combination opioids, such as those sold under the brand name Aveo, are imported from India, where they are legal. These seem to have become freely available around a decade ago, although they had evidently reached urban centres prior.

Nigeria has no effective prescription system and once a drug seller has a licence, he or she may sell almost any commercial pharmaceutical to customers. The study of the evolution of Nigerian farming systems shows that opioids have become an integral part of the agricultural system. As farm labour has become monetised, young men take drugs to work quickly to earn more cash. However, this has knock-on effects. Both pastoralist elders and traditional leaders consider this is an important factor in shaping Nigeria's aggrieved youth population. Drug use plays a role in tipping potential conflict situations into violence. Despite ad hoc informational posters warning against drug use, there is no evidence that these have had an effect.

All interviewees agreed that weapons possession is increasingly common among all parties and that they are becoming increasingly sophisticated. Unlicensed guns are theoretically illegal but are smuggled with impunity from a variety of locations. They are imported to the creeks of the Niger Delta for local use and also sold on for income. Similarly, they are bought and sold by non-state armed groups in the North-East, capitalising on the vacuum created by Boko Haram. Gun ownership is still somewhat patchy and is still quite rare in many parts of the Middle Belt. More recently, door-to-door sales of pistols and semi-automatic weapons have become a trend.

Among herders, modern weapons are likely purchased from the same dealers who supply farmers. Guns arriving cross-border from Niger to supply groups of bandits are presumed to also find their way into the hands of herders. This study found that pastoralists were only reported to carry weapons in some South-Western states. For example, in parts of Ọyọ State there has been a series of high mortality incidents involving people and cattle in which the use of small arms was reported.[18] It is likely that small arms have proliferated in the North-West and North-East among herders, but there is no direct evidence of this.

[17] There is a certain 'Robin Hood' aspect to some of these gang leaders, who given interviews to journalists and are happy to be identified by name.
[18] Interviews, 21st – 23rd July 2024

There has also been an alarming proliferation of local weapons workshops. In 2024, no fewer than three weapons workshops were discovered in South Jos, Plateau State (see Photo 3). Unless there is a more concerted effort to crack down on these illicit enterprises, access to weapons will be increasingly out of control.

Photo 3: Weapons Workshop, Jos

Source: Informal circulation

A key question in this context is how trade, production, and purchase of small arms are financed, given that the price of a semi-automatic weapon would normally be beyond the means of a farmer or herder. For farmers, they may benefit from community contributions to local defence, but most of the weapons are apparently supplied by politicians during elections to garner support for their faction. For instance, in the run-up to 2015 election in Benue State, youth were supplied with guns as part of a strategy to intimidate opposition voters. Irrespective of the election's outcome, the guns remain in the community, and risk ending up in the hands of the same unemployed young men who are around at polling time.

Nigeria inaugurated a Presidential Committee on Small Arms and Light Weapons (PRESCOM) in 2013. This has produced a series of surveys on the proliferation of small arms, financed by the Swiss Government (see the latest iteration, PRESCOM 2021). The Committee documents efforts to induce communities to hand in weapons through government amnesties. Despite some successes, the picture remains grim in many areas. Unless greater security for the civilian population can be established, it is unlikely people will divest themselves of this perceived means of defence.

7. Pastoralist Organisations

Pastoralists have a general sense of being excluded by government. Many of their children do not attend school and access to medical and veterinary services is both difficult and expensive, even if government sponsored. In addition, pastoralists are often facing legal difficulties, usually due to conflicts over crop damage or other complaints by settled farmers. As a result, pastoral associations have been established to lobby government (Sylla 1995). The oldest of these associations is the Miyetti Allah (Fulfulde for 'I thank God'), which has branches in every Nigerian state. It is often known in the press as Miyetti Allah Cattle Breeder's Association of Nigeria (MACBAN). MACBAN dates to 1979 and, as the name suggests, has a strong religious orientation. Its officials typically consist of the most senior *Jauro*s (herders' leaders) in the regions. The numerous livestock projects which have been undertaken by international development agencies in Nigeria have attempted to work with MACBAN, starting with the NLDP in the 1980s. MACBAN is quite ineffective as it is perceived by many herders to be too proximate to government to be able to represent their interests. In addition, as is all too common in Nigerian political bodies, it is regularly rocked by leadership crises and allegations of misappropriation of funds (usually with reason).

This frustration with MACBAN has induced Fulani herders in many Nigerian states to form more local associations to try and promote their interests. Since about 2015, there has been a massive expansion of pastoral associations. Their objectives include lobbying to prevent intrusion onto grazing reserves and cattle routes, to prevent circulation of counterfeit medications, to continue vaccination against epizootics, and to protect herders amidst civil insecurity. There is a marked difference between the aspirations of urban Fulani and those in rural areas. Those interviewed in rural areas were more conservative, emphasising access to veterinary drugs and the prevention of encroachment on

stock routes. Pastoral associations based in urban areas now often call for the 'modernisation' of herding, a surprising shift as it suggests they support settled herding and modern production practices such as improved dairying. Striking, too, is their promotion of the expansion of education. The realisation that poor education has cut herders off from effective lobbying is relatively new but the concept of improving literacy skills has evolved since 2000.

Another compelling development in the evolution of Pastoral Associations is the greater involvement of women and the incipient formation of associations consisting of and run by women. Typically, associations were entirely composed of men, but this is changing. Kaduna, for example, is the base of Reube Fulani Global Rights and Development Initiatives (RFGRDI), a women-led association whose objectives include peacebuilding, education, financial literacy, and the strengthening of entrepreneurial skills among its members. Photo 4 shows a meeting with the RFGRDI in Kaduna.

Photo 4: Meeting with Reube Fulani, Kaduna

Source: Umar Hassan

The other side of the coin is that non-Fulani herders, such as the Shuwa and the Kanuri-speaking groups, have never felt that Fulani associations address their interests. As a result, they established an independent organisation, Al-Hayyat, in the 1980s. This is a much less visibly organised entity, which almost never appears in the Nigerian press, but is often considered by the Fulani to be more effective than their own disparate organisations.[19] Shuwa Arabs are often large-scale cattle traders and thus their efforts predominantly seek to reduce the levels of predatory rent-seeking by government officials. It is difficult to establish the role Al-Hayyat has played with regard to violent extremism trends in the North-East where their constituents' main pastures are located.

Furthermore, the Sahel countries have seen the gradual evolution of associations for pastoralists which operate across national borders. The Confederation of Traditional Stock Breeders Organisations (CORET), for instance, is part of a wider chain of interconnected NGOs in Niger and Burkina Faso that was established in Nigeria and has offices in Kaduna. Typically, such NGOs only link fellow Fulani associations. Newly established, however, are organisations – such as Tinitare with offices in Jigawa and Katsina – which represent all pastoral groups, including specialised camel and sheep herders. These lobby for more control of migration within Nigeria and greater attention to veterinary inspection in cross-border migration. The impact of the Sahelian countries leaving ECOWAS in 2024 and thus the implicit loss of free movement of West African citizens is yet to become clear.

8. Education

The lack of educational services for pastoralist children has long been a subject of major contention in Nigeria. Universal Primary Education (UPE) was introduced in 1975 and, until recently, national coverage was estimated at 80 to 90 per cent. In the 1980s, the National Commission for Nomadic Education (NCNE) was formed in Kaduna under Decree 41 of 1989 to cater to the needs of nomadic populations,[20] now governed by the Nomadic Education Act, Cap N20 Laws of the Federation of Nigeria (LFN) 2004. The most up-to-date report on the NCNE can be found in Usman (2023). There were two views on the function of nomadic education, one that this was yet another argument for herders to settle permanently, the other that the government should provide education compatible with migration.

[19] For example, it does not surface in any internet searches.
[20] Visit to Headquarters in Kaduna, 24th-28th June 2024

Much discussion was had about how to service nomads, whether their movements should be followed by mobile schoolrooms or met with buildings proximate to their dry season settlements (Ezeomah 1987). The latter was the only practical solution. Another debate pertained to the language of instruction. Most herders spoke Fulfulde at the household level, but there were no teaching materials nor teachers trained with the relevant language skills. Therefore, Hausa was adopted at first. The programme is now largely in the hands of the herders themselves, except where schools have been established in proximity to settled agropastoralists. The second challenge was persuading primary school teachers to relocate to remote areas. Typically, in the more conservative regions of the North, Muslim girls were not sent to school. Initially, pastoralists also avoided schools as they feared it would undermine their herding capacities. Gradually, these attitudes have evolved, with most pastoralists considering basic education a requirement for children, in part because they now recognise that familiarity with modern technology (e.g., mobile phones, labels on veterinary products) is indispensable.

Nomadic education is now some 40 years old, but it has a patchy history. Nonetheless, Fulfulde elders have changed their attitudes with time. In the 1980s, few families would have wanted their children to attend school, even where it was accessible. Education was seen as disruptive to the *Lawwol Pulaaku*, the Fulani way of life, and the skills it imparted of no value. Gradually, it has become clear that the Fulani have been unable to effectively advocate for their rights in government precisely because they lacked representatives with the requisite reading and writing skills. In addition, literacy had advantages in a system of veterinary breakdown. When herders purchase their own medications, they need to be able to read the instructions. Today, all Pastoral Associations are promoting literacy and are lobbying State Governments for the extension and refurbishment of Nomadic Schools. In addition, there has been a growing switch to Fulfulde rather than Hausa as more materials become available. This does not necessarily reflect the situation in the country as Hausa has been displacing Fulfulde as a lingua franca in states such as Adamawa and Taraba. There is evidently an element of growing linguistic pride in the language.

Photo 5: Nomadic Primary school, Kiru LGA, Kano State

Source: Umar Hassan

Maintaining Nomadic Schools is in the hands of State Governments and their track record varies. Governments in Kano, Bauchi, Gombe, Cross River, and Kwara States generally had positive reviews, whereas other states were viewed negatively, using their resources to convert existing schools into mainstream schools for the children of farmers.[21] This does not mean children of pastoralists are excluded, but neglecting to accommodate migration and often the language of teaching risk excluding them in practice. Photo 5 shows a highly successful Nomadic Primary School in the Dansosiya Grazing Reserve (Kiru LGA, Kano State). As with much policy in Nigeria, the prejudices of individuals in political office play a greater role than the rights of those governed by such policies.

9. The Role of Religion

The narrative of resource conflict is conveniently simple and farmer-pastoralist conflicts are becoming proxies for political and religious struggles for power and resources. While churches and mosques should encourage peace and reconciliation and condemn divisive narratives, this is not always the case.

[21] For example, Plateau, Ọyọ, Ogun states. There are no schools at all in Ẹdo.

While all the pastoral peoples of Nigeria are Muslims, there are significant differences between sects, with particular division between the more conservative Tijanniyya and the reforming Izala (Section 3.2.3). The spread of fundamentalist views among pastoral Fulani has made a considerable impact in the West-Central regions of country, less so in major pastoral areas East of Gombe State and into Adamawa and Taraba (Higazi 2020). Nonetheless, a significant proportion of the Hausa in particular hold deeply negative stereotypes of the Fulani, which this is mostly expressed on social media in the Hausa language.

10. Responses to Conflict

10.1. Overview

In the past, crop damage cases were almost entirely settled under the tutelage of traditional rulers. Although these were sometimes seen as susceptible to bribery and sometimes to favour Muslim plaintiffs, in general they were characterised as less biased than more official mechanisms. However, as the Nigerian economy has developed, and Southerners (i.e. in states South of the Niger-Benue) are more aware of alternative dispute settlement strategies, they have had recourse to a variety of other resources. These include traditional authorities, NGOs/CSOs, Police/courts, and the Army. Only the traditional authorities have put in place any pre-emptive measures to seek to prevent conflicts from escalating. Conflicts between subsistence producers are best settled by them. Recourse to the police or army signals a failure of the system.[22] Nonetheless, this does happen, either because of a weak village head or because of a breakdown in trust between mediators.

10.1.1. Traditional Authorities

In settled communities, a hierarchy of village elders, ward heads, Village Heads and District Heads can be called on to settle disputes. Typically, the greater the scale of damage, the more senior the authority to whom the appeal is made. According to many interviewees, the main problem with traditional authorities is that their interest in these matters is varies significantly. Some take strong action to set up court-like procedures involving witnesses, a site inspection, and an independent valuation of the damage. Others make arbitrary judgments, which are commonly alleged to be influenced by payment. Reports on this were either highly contradictory or an expression of considerable local variation. In some areas, pastoralists were perceived to always win cases because they were wealthier than farmers and could pay more. Elsewhere, judgments were said to consistently favour farmers. Approximately three-quarters of the villages interviewed said they were satisfied with the efforts of traditional authorities. An example of the system working as it should be is in Otukpo, Benue State, where the traditional ruler has instituted monthly meetings between pastoralist and farmer leadership. Both parties interviewed separately expressed satisfaction with the dispute settlements brought before the ruler.

Some, more forward-looking village heads have established pre-emptive measures. In some instances, this is undertaken under the slightly oddly-named ‘Hospitality Committee.’ Such committees are groups of individuals nominated by the village head to meet with Fulani who are arriving to an area or setting up camp. Ideally, these are transhumant who have already visited the area in previous years allowing ease in initiating such meetings. In some cases, however, villagers must negotiate with a new, wholly unfamiliar group of pastoralists. The Committee tries to establish ground rules with the Fulani so that if crop damage or other disputes occur, both sides can rely on an agreed procedure. They also have an indigenous version of a Resource User Agreement, essentially demarcating land where grazing is acceptable and warning off the herders from potential farmland.

10.1.2. Police/Courts

No cases were reported of pastoralists taking cases to the police; indeed, they are natural victims because they are known to be able to incur charges rapidly. Farmers, especially in southern states, notify the police when they perceive that traditional authorities have failed them. In no example was the result satisfactory, suggesting this is more a case of revenge as once the herders are arrested, they must inevitably pay considerable sums to gain release. Farmers often reported having to make payments themselves to ensure that the police took action and very often failed to receive compensation for the damage caused to their farms. The courts seem to feature very rarely in dispute resolution as cases are usually settled before they reach that level.

[22] Interviews with herders in Ẹdo, Ogun, Ọyọ and Ekiti.

10.1.3. Army

The army have no official role in conflict management at the local level, but some communities and local governments have called upon them when civil insecurity has risen to unacceptable levels. This usurps the role of the police, however, and is therefore highly irregular. The use of the army in settling conflicts is hardly to be recommended as their method is simply to threaten both sides with violent retribution if the peace is not kept. In Bauchi State, where armed robbery and murders in bush areas have become commonplace, the army appears to operate a shoot-to-kill policy. This is perceived to be effective, having received hearty approval by beleaguered villagers. Where resource conflicts have devolved into situations of major civil unrest, it is difficult to see what other responses could reduce or cease violence. Nonetheless, this is not a long-term solution for ending conflict and enabling a sustainable peace.

The Nigerian army has been particularly occupied in the North-East in recent years whilst maintaining a presence throughout the country. In recent times, however, they have been called to conflicts in the Middle Belt and to oversee post-conflict meetings. Interviewees also noted that the skills of local commanders varied significantly, some being much more adept than others at peacebuilding. Since the mid-2010s, the rise of kidnapping and banditry in the North-West and in Niger and Nasarawa States has led the army to be more heavily involved in these areas.

10.1.4. Vigilantes

Photo 6: Vigilantes

Source: Umar Hassan

Box 2. Benue State 'Agro-Rangers'

In Benue State, the passage of legislation against open grazing effectively meant that Fulani herders could not function in the state. A body of 'agro-rangers' was appointed who were empowered to 'arrest' herds which could only be released upon payment of a fine. If the fine was not paid within a week, the animals were auctioned off at unreasonably low prices, presumably to local government officials. The practice deprived many pastoralists of their cattle. Thus, a cohort of angry, 'cattle-less' herders was created, adding to the potential pool of Fulani likely to turn to crime.

One response to increased insecurity has been the formation of vigilante groups. These were initially informal groups, often including hunters armed with mostly antiquated weapons (Photo 6). The concept is that hunters have experience in the bush and are therefore more willing to enter it in pursuit of criminals. Members are mostly volunteers who receive payment only through community contributions. In some places, Local Government has contributed to their costs. It is paradoxical that despite the existence of police and army checkpoints it was deemed necessary to authorise another competing force to deal with criminality. The situation for vigilantes has developed rapidly and in many states their status has been formalised with dedicated offices and uniforms. As could have been anticipated, vigilantes have rapidly developed into an oppressive presence in many states. They operate roadblocks like the police and army and attempt extortion from travellers. One assessment of the development of the vigilante system shows how the government of Plateau State gradually became complicit in this alternative security system (Higazi 2008, 2016). The 'agro-ranger' system in Benue State simply became a system of extortion (see Box 2). As part of wave of anti-open grazing legislation in several Southern states, the appointment of individuals similar to vigilantes was intended to enforce the new laws. Whether these groups now constitute an effective force for suppressing criminality is an open question.

10.1.5. Informal sector

Nigeria has a relatively poorly developed civil society, although various churches play an important role. Efforts to advance social justice and economic development are largely fuelled by external funders. For the Catholic Church, this manifests through Caritas Internationalis and the Justice, Development, and Peace Commission (JDPC) network and for the Protestants this is through Bread for the World and similar initiatives. Both movements have committed to resolving issues of herder-farmer conflict and contribute to projects in three states (see summary in Blench 2018, 2019c). In addition, many NGOs with a specialisation in peacebuilding are active in Nigeria (see SPRiNG companion reports and below).

11. Policy responses

11.1. Potential for Regional Solutions

The mobility of pastoralists is such that policy should, in principle, constitute a regional concern. Fulani herders traditionally move between grazing areas, irrespective of administrative boundaries, and the rise of instability has further accelerated this trend. Fulani also split their herds and families, such that part of the herd may be in one state, while the young men and a larger group of animals are elsewhere. In recent times, the mobile phone has become an indispensable tool in co-ordinating these dispersed activities. Any effective solution to these issues will therefore depend on the development of a more regional perspective, not confined to the boundaries of diocese, province, or state. However, policy in Nigeria is often decided at the state level, reflecting the views of individual governors. Despite the existence of a Governors' Forum, joined-up strategies across regions are unusual. The European Union has provided support to advance transitional justice in some of the states in the North-West, the background and supporting documentation for which are reviewed in Higazi & Hassan (2022).

11.2. Federal Government

Politicians are not livestock producers, but this does not prevent them from legislating strategies for animal management. Ranches have a long and wholly unsuccessful history in Nigeria and there is no reason to expect that this will change. This has, however, suddenly become the preferred solution to the challenges facing pastoralists. The social, economic, and infrastructural requirements for any type of ranching to succeed are not met in Nigeria. In 2024, the establishment of a new Livestock Ministry was declared, and its preliminary documentation still promotes ranching and feedlots (PLRIC 2024).

11.3. State Governments

Individual states, playing to public opinion, have been discussing restrictive solutions to what they perceive as the 'herder problem.' These consist mainly of prohibiting open grazing and authorising vigilantes and other poorly disciplined groups to shoot or 'arrest' cattle they perceive to be roaming. The first state to pass such a law was Ekiti in November 2016. This led to some immediate shootings and predictably violent responses from affected herders. By 2021, some seventeen Southern states had agreed to pass resolutions prohibiting open grazing. As of 2025, many states had yet to pass such laws; even where they were passed, they seem to be weakly enforced. Some Middle Belt states, such as Plateau, have comparable legislation under consideration. In March 2024, the Plateau State Governor banned open grazing via executive order, although again it is not visibly being enforced. This is indicative of the direction of travel.

Fulani herders are Nigerian citizens and have rights under federal law, which provides for free movement. Their human rights are at risk of being contravened. This is often justified informally by the assertion that 'they are not Nigerian anyway.' According to this assertion, they all originate from other West African states and should therefore 'go home.'

11.4. Peacebuilding NGOs

Nigeria has developed a remarkably rich ecosystem around peacebuilding (see Mustapha et al. 2018 for the example of Jos). The underlying assumption is that the antagonism between conflicting parties and the violent clashes that

regularly develop can be resolved by bringing stakeholders together, establishing trust and understanding through dialogue, and enabling resolution of conflict through non-violence, non-coercive means.

There is a significant question as to the effectiveness of these interventions. Higazi (2022a) has reviewed the key strategies for resolving conflicts and some of the issues which prevent these from being effective. The statistics suggest that the incidence of communal clashes has not receded. Importantly, there is a major gap between the views of urban participants and those in the rural areas as to the efficacy of these processes. For those in the centres of power, further efforts at peacebuilding continue to be the way forward. In meetings in rural areas, discussion focuses on practical action at the community level. Essentially, as argued above, clashes are about conflict over resources, and can only be resolved through technical responses. Unless action is taken to address underlying issues, such as demarcating stock routes or reducing pressure on land used for agriculture, the same problems will remain. Technical responses need to be designed within a framework of community agreement. The buy-in and consensus of grassroots stakeholders who are affected is crucial to effectively demarcating a stock route or Grazing Reserve or enforcing other measures.

12. Information responses

12.1. How should we disseminate information?

Mobile phones became widespread in Nigeria from 2005 onwards. They remain relatively affordable and practical, with good national coverage. Smartphones are common in urban areas and Nigerians are enthusiastic adherents of social media. However, in rural areas, a lack of literacy among both herders and farmers has meant that the importance of mobile phones is restricted to voice calls. Even so, access to a phone now plays an important role in herders' lives. The primary use of the phone is for information concerning grazing and water, something individuals previously would travel long distances to discover. Market prices are an important secondary use, since the Fulani economy depends on the sale of small stock for meat. The potential of the smartphone for circulating security information, correcting exaggerated claims in the media, and linking up pastoral leaders in widely dispersed places has yet to be realised.

The internet and smartphones play a role in social interaction among urban populations. The reach of smartphones among pastoralists and rural populations is expanding everywhere, and among younger generations especially. This has positive and negative implications. Rumours and misinformation spread just as rapidly as reliable information. The companion report provides examples of how accounts of massacres and videos of atrocities in various languages are widespread and circulate unchecked. TikTok and other companies have systems for regulating such material, but the Federal Government does not play a role in correcting unchecked propaganda. For better or worse, social media is the channel whereby an increasing proportion of the population receives information. It is therefore essential to know what is in circulation and to devise the means to counter it. Little work has been attempted in this domain thus far.

12.2. Radio

The potential for vernacular radio to reach pastoralist youth remains difficult to assess. Nigeria has a lively broadcasting scene, and recent trends have been to include more languages on both federal and private FM stations. However, only AM broadcasting can reach the more remote areas where most herders and farmers live. Whether reaching rural populations is now most effectively achieved through AM radio is open to debate as there is little data on how younger pastoralists obtain information. It may be that the heavy investment in AM radio being made by the National Commission for Nomadic Education is now out-of-date and that internet broadcasting and podcasting is the way forward.

13. Climate risk

There have been a great many claims concerning climate change in Nigeria and their potential relationship to the incidence of conflict.[23] Evidence for abrupt climate change in Eurasia and North America is difficult to deny. The last few years have exceeded the predictions of climate scientists in these regions. Temperatures higher than predicted have seen wildfires destroying forests in Canada and Siberia. The evidence base for West-Central Africa is much weaker. The collapse of regular monitoring of biophysical parameters such as precipitation and temperature means that these can only be inferred from satellite data. The results are therefore difficult to disentangle from anthropic landscape change. For example, deforestation can be attributed to human activity or higher temperatures causing die-off of certain species. This cannot be determined without ground truthing.

If stronger biophysical data were available, and forecasts of long-term trends and short-term changes as a result, planning and land use strategies could be improved. Pastoralists are by their nature deeply sensitive to short-term weather patterns. Their subsistence strategies depend on maintaining local knowledge and working out ahead of time where rainfall is likely to mean useful pasture. At present, they depend almost entirely on ad hoc strategies. Prior to the mobile phone, it was common for migratory herders to dispatch scouting expeditions ahead to report back on conditions. In Niger, camels were used for information gathering as they can range over areas where it is risky to send cattle herds. The mobile phone has changed much of this, since herders have developed networks of friends and relatives who can supply this information. This capacity may have instigated herders to engage in riskier long-term migrations, for example from Niger as far south as Taraba State, with the foresight they will find land, water, and pasture.

In some Sahelian countries, remote monitoring of pasture and water availability is being communicated more directly with pastoralists via mobile phone platforms. The SNV Netherlands Development Organisation has set up just such a platform and has been scoping the potential for expanding to Nigeria. There is no doubt that such an initiative could potentially be useful to herders. The problem is political. The Federal Government would have to be directly involved in setting up just such a network, gaining access to the data to both disseminate and incorporate the results into policy determination. Its track record in this area is mixed.

Importantly, Nigeria has been afflicted by extreme weather events such as flooding, causing large-scale loss of life and property. Resuscitation of basic data gathering, forecasting, and early warning involving herders and farmers remains a priority.

14. Proposals for Action

14.1. Direct Efforts of CBOs and NGOs

The forces that underlie the uptick in conflict between herders and farmers have been allowed to evolve unchecked due to a weak policy environment. NGOs and CBOs should undertake advocacy to change the situation, but this may involve security issues over which they have limited influence. Nonetheless, they can engage in several key arenas, most notably in-depth regional conflict analysis, forward-leaning policy thinking, and support to policies that deliver for pastoralists and farmers and improve their interactions. One of the most difficult conceptual challenges is convincing the established farmer blocs that resolving these issues is in their own interest. Non-formal institutions have the freedom to attempt new technological solutions which government will never implement on its own. This section outlies some technical proposals in relation to mechanisms for distinguishing livestock grazing and farmland and for mitigating longer-term environmental damages. None of these options will succeed without corresponding work with communities to reach a consensus on how these can be implemented.

[23] e.g. the recent https://news.un.org/en/story/2024/06/1151106 .

14.2. Live Fencing

Photo 7 'Cactus' (Euphorbia kamerunica) fencing on the Jos Plateau

Source: Roger Blench

Photo 8. Thorny shrub, Caesalpinia bonduc

Source: Roger Blench

In most parts of Africa, farmers do not fence their fields as it is costly and laborious to maintain. Until education became widespread for children of primary school age, they were commonly sent to guard the fields against wild animals and other crop pests. Intrusion by livestock has only become an issue in the Southern Central Zone recently. However, in areas where livestock and crops have long been intertwined, farmers have used live fences to control access. Industrial fencing is expensive, while live fences are a more affordable option with the added benefit that leguminous plants can improve soil conditions. The cactus (*Euphorbia kamerunica*) is widely used on the Jos Plateau to prevent livestock from eating crops (see Photo 7).

Establishing live fences could substantially reduce the incidence of crop damage by cattle. If cattle entered a fenced field, then herders could hardly claim it was an 'accident.' It could be argued that the labour involved in establishing fencing would disincentivise farmers to open up new land. There is an opportunity cost to be considered as using fencing to enclose land encourages farmers to make more effective use of the land they have through composting and manuring, as is the case on the Jos Plateau. Since new land is always opened up on an experimental basis, new unfenced farms can be a testing ground for the overall value of the land over the longer-term.

If fencing is to be introduced, the issue is to find an ecologically suitable species, which can easily be propagated, has thorns or other features to deter livestock, and is ideally also nitrogen-fixing.[24] Photo 8 shows the thorny *Caesalpinia bonduc*, *ayo*, which meets these requirements. This is not the only option, and there may be other better species, including those which have useful fruits, such as the physic-nut (*Jatropha curcas*).

[24] Blench (2025) reviews the options for live fencing in Nigeria

CSOs and NGOs can play a role in researching appropriate species for each ecological zone, demonstrating how they can be planted and integrating them into their agricultural extension programmes.

14.3. Stock routes

The existing stock systems is described in §3.1. In many parts of the country, it has fallen into disarray even though it is recognised that it has long-term value in keeping migratory herds away from farmers' fields. The one state where a serious attempt to revitalise the demarcation of routes is Kano, which has sought funding from the Islamic Development Bank for an integrated programme intended to shift herders towards agropastoralism through the provision of schools, improved veterinary services, and boreholes. In the case of stock routes, the programme has mapped its existing network and begun the process of both removing farms which encroach on the routes and marking them with oil drums filled with sand. This is less than ideal, given that live boundaries made of thorny trees species would likely be more sustainable in the long-term. Nonetheless, the principle is correct and could be encouraged and adopted by other states. Further work on the impact of this programme is encouraged, though initial interviews with herders suggest positive effects.[25]

14.4. River basin management

Nigeria's agriculture has historically been driven by its rich hydrological river system. The Niger and the Benue, as well as the extensive wetlands, allowed for fisheries, fadama agriculture, and pastures for cattle to drink during the dry season. The rivers feed extensive gallery forests which created wildlife habitats and extensive zones for bees to pollinate crops. Much of this has evaporated over the last few decades. Trees have been cut down for charcoal, firewood, and dry season horticulture. This has given way to serious annual flooding and contributed gravely to the loss of life and property. Drinking access for cattle and pasture have disappeared, exacerbating conflict with farmers. Replanting trees along river basins and shifting farmland away from riverbeds, together with establishing drinking points for livestock, would go a long way to resolving these challenges. This would need to be a multi-state endeavour, enabling by international cooperation and enforced through legal measures and fencing.

15. Conclusion

Nigeria represents both a challenge and opportunity in terms of its pastoral population. The growth in human population is largely responsible for the exacerbation of conflict in recent decades. The import culture which has largely filled the gap in food production is now coming to an end, presenting an opportunity to advance the integration of livestock production and cultivation. This requires an empirical approach to policymaking, grounded deep listening of local populations, rather than urban lobbies whose knowledge of livestock and herding practices is tenuous at best. If agropastoral systems can be established, which are based on smaller, better managed herds and the exchange of manure, meat, milk and animal traction, the incidence of conflict in Nigeria would inevitably decline.

[25] Dansosiya Ruga Settlement, Kiru LGA, 29th – 1st July 2024.

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