

A dossier by LPP, DITSL, FES und MISEREOR
in collaboration with the editors of WELT·SICHTEN.

We need pastoralists!

How herders and farmers sustain fertile landscapes



FOUNDATION FOR ECOLOGICAL SECURITY



Mobility is key: a young
herder with his goats on the
border between Senegal
and Mauritania

Photo: Petra Diltthey



Editorial

Dear readers,



Juliane Bräunig
First Chair of the League
for Pastoral Peoples



Christian Hülsebusch
Managing Director,
German Institute for
Tropical and Subtropical
Agriculture (DITSL)



Subrata Kumar Singh
Director of the Foundation
for Ecological Security, India



Dr. Andreas Frick
Director General,
MISEREOR

Pastoralism is one of the oldest forms of production known to humankind. An estimated half a billion people worldwide depend on pastoralism for their livelihoods. If we include those who process or market livestock products as well as urban consumers, up to two billion people benefit directly or indirectly from pastoral production. Pastoralists keep around one billion animals, accounting for around half of the world's livestock. They make a significant contribution to food security by supplying valuable protein (milk, meat) while contributing both to the export of live animals, hides, and skins and to national value creation in their respective countries. Furthermore, their mobile livestock production system enhances biodiversity on rangelands and sustains their function as carbon sinks.

Despite this impressive track record, the public knows little about pastoralists. Reports about pastoralists are often full of myths and prejudices. While the media frequently reports on conflicts between settled farming communities and herders, it rarely reports on the often close relationships between these groups that have developed over time or these groups' mutual exchange and peaceful coexistence. The present publication aims to mark the International Year of Rangelands and Pastoralists (2026) by filling this gap.

The introductory article seeks to familiarise readers with the complex world of pastoralists. Part 2 provides an overview of the diverse synergies between pastoralist and farming communities in India by highlighting the relationship between farmers and herders. For example, manure from pastoralist production ensures that we can enjoy organic coffee from India. Part 3 explores how peaceful coexistence is possible in Nigeria's politically charged climate and how pastoralist and farming communities in Tanzania refuse to be divided despite restrictive government policies. The publication concludes with suggestions from a conference in Nairobi and conclusions from the editorial team.

We hope you find it an inspiring read!

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Pastoralists in the Sahel also water their animals at natural puddles, such as this one in south-western Burkina Faso. These puddles usually dry up during the dry season



Photo: CESAO-PRB

Recognising Pastoralists' Contributions

Pastoralists and Their Changing Relationship with Farmers

| Camilla Toulmin

While working in the north of Nigeria in the 1970s, I was impressed by the ever-present sight of great cattle herds led by lean Fulani men perched on the roadside verge before they set off across the landscape. As a sympathetic observer, it was not always clear where they were going and why, but I marvelled at how they navigated their animals around cars and buses, negotiating passage to browse in an increasingly congested space.

Living for two years in the small village of Dlonguebougou in central Mali, I started to understand the rhyme and reason to herd movements, how different seasons and places were looped into a shifting pattern of markets, grazing, and water supplies. I observed the negotiations between 'herders' and 'farmers', the variety of goods and services traded through such deals, and the mix of banter, argument, and friendly rivalry that played out each afternoon as men from both groups sat in the shade, chatted, and played games.

Animals have been a part of human flourishing for many millennia, as the magical paintings in the Hoggar mountains of the Sahara and the caves of Lascaux in central France make clear. Archaeologists and anthropologists may argue about social evolution and whether it followed a neat sequence from hunter gatherers via herding of livestock to becoming settled farmers, or whether the herding of animals has usually been a separate specialisation. But in many times and places, it is common to find mobile herders

and settled farmers maintaining parallel but intersecting lives, building patterns of exchange and shared resource use.

| Where Environmentalists Are Wrong

Livestock and their keepers attract heavy criticism today from environmentalists, who hold ruminant animals responsible for major greenhouse gas emissions and argue that grazing prevents tree and shrub growth and damages biodiversity. Much government policy towards pastoral people echoes this criticism and frequently reaches for settlement and the de-stocking of animals as the solution. Pastoral herders are also blamed for much of the conflict that plagues many parts of Africa today, whether in the Sahel, Sudan or the Horn. Presented by its detractors as an archaic mode of production that needs to evolve into settled farming, pastoral herders have few powerful advocates, despite their remarkable knowledge and skills, which enable

In recent decades, more and more forested and pasture land in Sahel countries has been converted into farmland. Farmer Vincent Ouedraogo and his family in northern Burkina Faso ploughing their field and preparing for sowing

them to make good use of highly uncertain rainfall and pasture across vast spaces.

Fortunately, in recent years, voices of herders across the world have confirmed what research also tells us, namely that running a successful pastoral livestock system is highly demanding, especially for long-distance transhumance. Pastoralists need to gather knowledge over extensive areas, maintain kin networks, control labour to ensure different classes of stock get the particular care they need, and manage the timing of animal sales well. Running a successful pastoral livestock enterprise also needs a lot of capital, tied up in the animals that make up the flocks and herds. With climate change bringing ever more uncertain conditions, the mobility and adaptability of pastoral livestock systems represent a model built on resilience with lessons for all.

Today, it is estimated that there are more than 500 million pastoral herders around the world, from the Andean highlands, the mountains of Europe, the great savannas of semi-arid Africa, the Himalayan foothills and alpine meadows to the grasslands of Mongolia. Today's pastoralists are up to date with what the latest technology can offer them, whether that be the motorised transport of herds between pasture areas, getting their hands on weaponry for their own protection, investing in a solar panel for pumping water, or digital applications that enable them to track pasture conditions and market prices.



Photo: Florian Kopp

One of the big threats pastoralists face everywhere is loss of access to grazing land. Farmers, dam-building, mining, and big infrastructure have taken much valuable pastureland. Almost everywhere, the legal status of cultivation rights prevails over livestock grazing. Wildlife conservation has also brought difficulties, by establishing national parks, closing off areas to grazing herds, and an increased risk of animal losses from predation by protected species such as lions, bears, raptors, and wolves. In the Sahel, pastoralists are caught up in a bloody struggle between the military and different jihadist and secessionist forces, making it impossible to maintain patterns of movement and marketing. Animal theft has also become a huge problem. Long-distance transhumance with large cattle herds has become too risky a business today – even for well-armed herders.

There Are Often Long-standing Ties between Herders and Farmers

Livestock and crop production are connected in multiple ways, allowing the producers involved to benefit in the form of manure, animal traction, and supplies of milk and meat. This can take place within the household, for example when animals are kept in a shed and fodder is brought to them or when they are sent off in the care of a family member during the farming season to prevent them from damaging crops. But in many places, the herding of livestock is done by one specific ethnic group and farming by another, each with the knowledge, skills, and social organisation needed for these tasks. Herds are often kept separate from fields for sev-

eral months and taken to benefit from fresh mountain pastures or distant grazing areas. While conflicts can occur between crop and livestock producers, these often run alongside long-lasting social bonds.

The negotiations between herders and farmers depend on power relations between these groups and, above all, their ability to claim control over water and land. In the Sahel, farmer-herder power relations have shaped the mosaic of production systems, with patterns of reciprocity and complementarity also dogged by contest, dominance, enslavement and struggle over many centuries. The potential for conflict which arises from crop damage by livestock or the cultivation by farmers of areas traditionally used for grazing was moderated in the past by the mutual advantage both groups gained in the exchange of their respective products. But as both herders expand their agricultural activities and farmers build up cattle herds of their own, the basis for a mutually beneficial exchange has steadily eroded.

In the Bambara farming village of Dlonguebougou in central Mali, which I have studied for more than 40 years, some Fulani herding families had been resident for many generations. More recent arrivals include Haratin herding families – tall black Africans formerly enslaved by Moorish tribes – who came down from the northern marches of Mauretania in the 1900s. In the 1970s, Fulani herders from further east began coming to Dlonguebougou for a few months of the dry season, when the 4-5 months of seasonal flooding in the Inner Niger Delta made access to the delta's high value pastures impossible. Cattle herds owned by rich town-dwellers in Niono and Segou are also brought to benefit from the

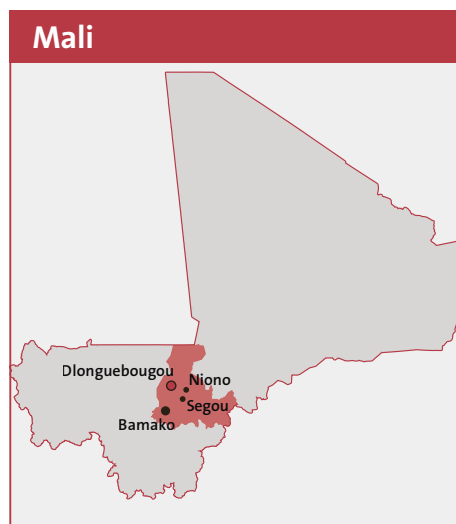




Photo: Florian Kopp

Balkissa Diallo and her favourite cow, Maleye, in the Centre-Sud region of Burkina Faso. Fulani girls in West Africa are given a female calf as a gift at birth. They grow up with it, look after it and its offspring remain their property

extensive grazing to the north of the village. At the same time, most village households have some cattle: old men keep a few sheep, and women have a handful of goats. So, from first light, herders and their animals jostle at the village wells. Herd-owners negotiate with a village household to access water from their private well, which was dug specifically to attract visiting livestock onto their farmland and thereby manure it. Village households without their own cattle are especially keen to receive dry season visitors and invest considerable time and effort in digging a couple of wells in their fields for this purpose.

But patterns of herder-farmer interaction change over time as wider circumstances shift. In Dlonguebougou in the 1980s, the villagers used hired herders to care for their cattle, sheep, and goats – freeing family labour for cultivation. But by 2010, few if any of the village families retained hired herders due to growing mistrust between the two ethnic groups, accusations that herders were taking more milk than agreed from the cows, and frequent loss of animals, which were presumed stolen. Consequently, many village herd-owners now choose to care for the livestock themselves.

| Herders Accumulate a Wealth of Empirical Knowledge throughout Their Lives

Livestock are not like crops and need close daily care to thrive – whether this means being milked twice a day, led to seasonal grazing, provided with salt and medicines, readied for mating, or prepared for market. The herder builds up experience over many years, understanding the opportunities the wider landscape presents in terms of water, grazing, markets, and dangers. By contrast, in

industrialised livestock systems, we have outsourced animal care to computer models for feeding regimes, digital collars to control cattle movements, barbed wire to enclose herds, antibiotics for reduced disease incidence, gigantic silage clamps for feed and slurry pits for manure.

But it wasn't always like this. In the classic European mixed farm, livestock was folded onto the farm's cropland in winter to gain the benefit of their dung and then sent off once the fields were sown to graze the hills till harvest time – a pattern still found in England's Lake District and in the Pyrenees today. In Scotland, from the seventeenth century onwards, cattle traders developed a good business linking the cool, wet highlands and outer isles to towns and cities further south. Livestock drover roads cut through farmed areas along which cattle moved, with resting points and places to graze. Farmland benefitted from the dung left at each stopping point. Similar long distance drover routes are found in many parts of Europe, linking pasture areas to city markets, often hundreds of kilometres away. The cañada pathways across Spain and tratturi in southern Italy are remnants of such systems, which came to an end once motorised transport became possible.

What might be the future of herding populations today, their relations with crop-growing neighbours, and the role of animal production in climate compatible development? While in areas of rising demographic pressures it may become harder to manage

There are many ways of resolving the shared use of space so that both sides can reap the benefit.

mobile livestock, there are many ways of resolving the shared use of space so that both sides can reap the benefit. But this requires both sides to recognise balanced and secure rights of access, protected livestock corridors to ensure the passage of beasts and reduced risk of crop damage, and assurance of fair process. Governments – local and national – have a major role to play to ensure balanced respect for the rights of both pastoralists and crop-growers.

Where does animal production fit within a changing global climate and the need to cut back greatly on carbon emissions? Many people call for an end to livestock farming and for us all to become vegan. But we need to distinguish intensive meat and dairy production, with its high emissions and poor animal welfare, from extensive pasture-fed animals. The latter recycles its limited carbon emissions through the grazing ecosystem, unlike the huge feedlots

in which much of the world's beef is grown. We should be supporting the many pastoralists and small-holder farmers in diverse corners of the planet by buying their produce

and affirming their rights to land. The 2026 International Year of Rangeland and Pastoralism is a good moment to shift support from intensive to extensive livestock systems and find ways of bringing herders and farmers, livestock, and crops back into a shared landscape.



Camilla Toulmin
spent 28 years at the International Institute for Environment and Development, 12 of them as director. She has worked closely with herders and farmers in West Africa.

The ABC of Pastoralism

| Saverio Krätli

(Extracts from Pastoralism on its own terms: Foundations for analysis and advocacy 2026, forthcoming)

Worldwide, an estimated half a billion people rely on pastoralism for their livelihoods across all continents except Antarctica. They sustain rangeland-pastoralism systems that together cover around one quarter of the Earth's land surface. Pastoralist production contributes significantly to national economies and to food systems.

Mobility Is a Production Strategy

Where nutrient-rich forage appears as brief windows of opportunity that are unpredictably distributed in time and space – the variability that characterises rangelands – mobile livestock keeping thrives. By moving with their herds to track rainfall and vegetation flushes, pastoralists keep animals on high-quality forage far longer than would be possible under the same environmental

conditions. Pastoral mobility can reduce exposure to drought, epidemics, parasites, conflict, or unfavourable market conditions, but its main function is to increase productivity: maximising the use of grazing opportunities, especially during the rainy season.

Pastoralism Sustains Living Landscapes

Many pastoralists' communities maintain strong symbiotic relations with farming communities. Along seasonal migration routes, pastoral herds provide relatively inexpensive animal protein, and their manure contributes to regenerating farmland soils, while farmers provide crop residues and access to water. These complementarities support multi-functional landscapes and often strengthen social relations between pastoralists and farmers. Pastoralism also supports biodiversity through the dispersal of seeds in dung and fur, helps maintain grassland structure and sward through grazing, and contributes to the natural carbon cycle. Pastoralists do not avoid climatic variability; they work with it. Climate variability is the ecological niche in which

pastoral systems specialise, making pastoralism inherently climate adapted. Without such variability, pastoralism would not exist.

Pastoralism under Constraints

Across the world, pastoralists face restrictions on mobility, loss of rangeland and especially drought grazing reserves, fencing, blocked migration routes, and denial of transit rights. Their resilience is further undermined by the commercialisation of key resources such as water, pasture and crop residues, while customary rights and the institutions that supported them are often overlooked or weakened. At the same time, pastoralists are frequently excluded from decisions and funding processes that directly affect their livelihoods. Climate change is a challenge for pastoralists – as it is for everyone else. But climate variability is precisely what pastoralism specialises in benefitting from while managing its risks. What most increases pastoralists' exposure to climate risk are policies and structural barriers that obstruct this specialisation. Even if climate change disappeared overnight, these obstacles would still prevent pastoralists from prospering.

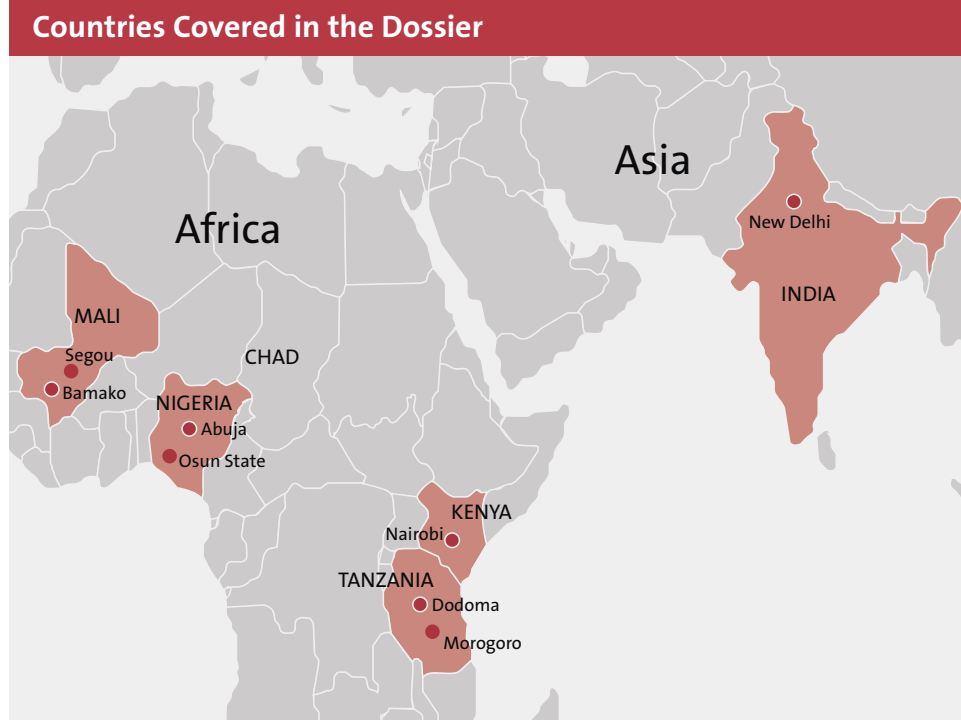
When Allowed to Function, Pastoralism Generates Value

Where pastoralism can operate according to its own logic and in the space it requires, it produces ecological, social, and economic benefits, including resilient food production, biodiverse landscapes, healthy rangelands that perform multiple ecosystem functions, and livelihood stability for millions of people. | |



Saverio Krätli

works as a consultant and specialises in working with nomadic pastoralists. He is editor of the scientific journal *Nomadic Peoples*.



On the Move

How Indian Pastoralists Sustain Food Production and Biodiversity



Kuruba herders in India let their sheep fertilise a farmer's field

Photo Ilse Köhler-Rollefson/LPP

| Ilse Köhler-Rollefson and Bhavana Kuchimanchi

Estimates of the number of pastoralists in India range from 10-12 million to 35 million. These mobile livestock keepers contribute approximately 53% of India's milk and 74% of its meat, while providing a range of environmental services.

In India, pastoralists are ubiquitous from the Himalayas in the North to Kanyakumari in the South; from the Gulf of Bengal in the East to the Arabian Sea in the West. They deploy cattle, sheep, goats, buffaloes, camels, yaks, pigs, and even ducks to process natural vegetation, crop by-products and weeds in farm-

ers' fields into food and other products. They turn biomass that is there anyway into valuable products, including manure. They produce food, fibre, fertiliser, and energy in practically every type of environment that can be reached by walking, climbing, swimming, and ranging from icy high and arid altitudes in the Himalayas to the steamy seasonally soaking rainfall zones of the Western Ghats, and from isolated areas in the Thar Desert to roadsides and empty plots in urban areas.

Here we present only a few selected examples of how pastoralists contribute to agricultural and ecological sustainability – aspects that have long been overlooked by policymakers and animal scientists.

| Preserving Livestock Diversity

India's pastoralists have developed a diversity of livestock breeds that are not selected for maximum yields, but for their ability to make

the best use of local vegetation by walking long distances, coping with seasonal shortages and going out on their own to forage rather than waiting to be fed. At least 40% of India's 197 recognised breeds have been developed by pastoralists.

India's Thar Desert, which borders Pakistan, is famous for the quality and drought resistance of its livestock breeds, which were developed by pastoralists and previously supplied to farmers in adjoining states as work animals. Camels are iconic for Rajasthan and were once widely used for transportation. In desert areas, they were managed in free-ranging systems, whereas in more fertile regions along the Aravalli Hills, they were well integrated with crop cultivation. Their manure is collected and bartered for grain or sold by women.

A Raika herder and her son in Rajasthan. The female herder will later exchange the dung collected from the family's camel herd for wheat

Herding communities are quick to adapt to changing market conditions. Rajasthan's Raika shepherds switched from wool-producing sheep to fast-growing animals to adapt to the lucrative demand for meat. To take advantage of a developing camel dairy market, they cross their females with male camels of the high-yielding Malvi dairy camel breed.

In Ladakh, many herders have switched from yak breeding to Pashmina goats for their luxurious fibre, which is a major export item. Now, however, Pashmina production is threatened by the conversion of customary grazing grounds into gigantic green energy fields.

| In India, Manure Is More Valuable than Milk or Meat

In India, the relations between pastoralists and farmers have always been symbiotic. As herds moved across landscapes, they provided rich manure that nourished soils, sturdy animals for farm work, and a steady supply of milk and meat.

The relationships between farming and herding families often go back generations and still continue in some places, although the arrival of chemical fertilisers has lessened this interdependence. In the past, farmers eagerly awaited the arrival of the pastoral herders and compensated them in cash and in kind for their organic manure. Now, this is limited to farmers growing certain types of crops, such as vegetables and bananas. Yet the value of manure has increased manifold. A calculation by experts suggests that in eco-



nomie terms, manure is the most important product of Indian livestock, far exceeding that of meat and milk and amounting to approx. 83–124 USD per ha for major crops; reducing the use of chemical inputs by about 10 to 30%. Furthermore, the dung provided by pastoralist livestock is deposited directly where it is needed by the animal while grazing on the fields – reducing the need for fossil fuels that would otherwise be necessary to transport it there.

Using manure – which has turned into a toxic liability in western systems of confined livestock management – saves an enormous amount of the greenhouse gas emissions that are associated with the production of chemical fertiliser. At the same time, it saves India a huge amount of foreign currency that would otherwise have to be spent on importing fertiliser. While the ecological and economic importance of pastoral manure cannot be overstated, these aspects are never integrated into conventional analyses of livestock productivity.

On the Tibetan Plateau, yaks traditionally provided the fuel for cooking and heating in the treeless Changthang region where firewood was scarce. Nomads dried the dung and formed it into cakes that burned slowly. The Changpas also used the dried manure as a building material and for insulation purposes, as well as for fertilising barley fields. However, because pastures are being diverted for other purposes, such as green energy, there

is now the worry that a lack of manure will diminish the ability to grow barley, the local staple crop.

On the semi-arid savannahs of the Deccan Plateau, in Maharashtra, Andhra, Telangana, and Karnataka, sheep pastoralism is practiced by various pastoralist groups, including the Dhangar, Gollas and Kurubas who pen the

Managing Landscapes Together – Grazing Wisdom!

Conversations with pastoralists reveal how closely herders read their animals. Restless, frantic grazing is taken as a clear signal that fodder is running out and it's time to move on. They also note that animals instinctively avoid areas already grazed by others, guided by lingering scents – an inbuilt check against overgrazing. Furthermore, when animals slow down, grazing leisurely or settling down to rest, herders know the land has provided enough for the day.

Pastoralists have their own way of managing trees in forested landscapes. They lop certain trees in specific seasons. If not lopped correctly and in the right season, trees die over time. When done by pastoralists, it is often regarded as damaging; but when done by forest departments, it is often understood as coppicing or pruning!

Nari Cattle

One of the breeds long overlooked by animal scientists is the Nari cattle from Southern Rajasthan which combines excellent milk yields with draught power ability, as well as very attractive physical features, including very long horns. It was bred by the Raika herders who diligently prevent their cows from interbreeding with other bulls to maintain pure bloodlines. They laud the drought tolerance of the breed and the ability of cows to protect their calves from predation by leopards.



Photo: Ilse Köhler-Rollefson/LPP

sheep in mobile enclosures. This fertilises farmers' fields intensively and provides the biggest source of income from the flocks.

| Multiple Benefits for Economy, Environment, and Landscapes

The increased demand for organically grown coffee and other crops makes manure produced by pastoral herds especially coveted (see article on manure, page 10).

Mobile animals also control weeds. In the Godwar area of Rajasthan, camels relish the Indian Globe Thistle which grows on fallow fields, much to the chagrin of farmers. The camels convert this hated weed into very sweet and healthy milk, while at the same

time fertilising fields, providing a great example of a circular system.

In India's southern states of Tamil Nadu and Andhra Pradesh, duck rearers keep their ducks in mobile systems and walk with them for a kilometre a day and transport them in trucks over long distances. They have a symbiotic relationship with rice farmers. Before harvest, flocks of ducks are released into paddy fields, where they feast on leftover grain, insects, and weeds. These flocks, which are often huge, fertilise the soil, aerate the fields with their constant movement, and control pests and weeds. They clear fallen rice seeds, helping farmers avoid unwanted mixing of varieties in the next season. Fields visited by ducks need fewer chemical inputs, cost less to manage, and often deliver better yields.

Pastoralists also supply farmers with draught animals for ploughing, pulling carts, transporting loads, and other physical labour. Although the demand for such animals has decreased, they are still essential for small-holder farmers who are a majority across India. The government of Rajasthan recently launched a scheme to subsidise the use of bullock carts to support natural farming.

Pastoralists also contribute to wildlife conservation. One example is provided by the Nand Gaowlis, an agro-pastoral community of Maharashtra who rear cattle and buffaloes. They play an important ecological role in maintaining forest and wetland landscapes, including waterbodies. Evidence from protected areas shows that when livestock grazing is banned, wetlands and forest ecosystems degrade rather than recover. In Dudhwa National Park in Uttar Pradesh, the exclusion of livestock grazing led to siltation, the spread of invasive and excessive vegetation, and the choking of wetlands, contributing to the decline of swamp deer. In contrast, in areas where grazing continued, the ecosystem remained healthier and wildlife populations thrived.

Clearly the contribution of pastoralists to the country's agricultural economy and food security is crucial and phenomenal. They manage to do this powered only by the sun, with all energy ultimately deriving from the photosynthesis of plants. Yet they are increasingly driven out by solar energy fields,

Mobile Pigs and Swimming Buffaloes and Camels

In Odisha, certain communities moving with the whole family herd pigs across harvested rice fields where they Hoover up left over rice grains. They turn what would otherwise be wasted into valuable protein that is much in demand, while fertilising at the same time. This is an age-old, low-cost livelihood that plays a critical role in food security, income stability, and nutrition for some of the state's poorest and most marginalised communities. Native pig breeds, which are well adapted to local conditions, require minimal external inputs, are relatively disease-resistant, and efficiently convert any kind of organic waste into protein, making pig pastoralism both economically and ecologically valuable.

Also in Odisha, buffaloes swim to their feeding places in the Chilika lagoon. They go there for night grazing, and their manure supports the fish population. In the morning, they are milked, and their dung is made into elaborate cakes that are dried on house walls.

Similarly, in Kutch, Gujarat, the Kharai camels of the Fakirani Jat and Rebari pastoralists swim into the ocean to browse on mangroves. While foraging they stomp the mangrove seeds into the ground which helps their regeneration.

monocrops, and mining. India can ill afford to lose this major pillar of its food security. It is imperative and extremely urgent that pastoralists command the respect and support they deserve – before it is too late! | |



Ilse Köhler-Rollefson is a veterinarian and founder of the League for Pastoral Peoples. She has been researching pastoralism in India for 35 years.



Bhavana Kuchimanchi is a research and strategy manager specialising in sustainable arable farming and livestock systems.

Poop to Pour Over!

How Livestock Manure Helps Grow a Perfect Cup of Coffee

| P.S. Madappa and
Bhavana Kuchimanchi
Other contributors: Harshit Mishra,
Sajal Kulkarni, Kushalendra Rao,
Ranjeet Sahani

Natural farming is seen as an antidote to input-heavy, chemical-intensive agriculture, where soil, biodiversity, and long-term health are at the centre of farming. Natural farming is gentle and nurtures the land, using natural inputs and treating soil and plants as living systems. The result? Cleaner water, healthier soils, insects and pollinators – and, ultimately, healthier people.

Behind this ecological transformation lies a story rarely told.

According to the 2019 Livestock Census of Karnataka, a southern state in India, Karnataka has a total livestock population of 30 million. The sheep population accounts for 9.60 million animals (32% of total livestock), the goat population for 7.63 million (25.4 percent), and cattle and buffaloes for the remainder. Such a large presence of livestock in the

Change Comes at a Price

The prospering plantation and horticultural sectors, expansion of the manure trade along with the push toward the intensification and industrialisation of livestock and agriculture, are causing significant transformations. These changes come at a cost, reflected in the steady erosion of traditional relationships and knowledge systems within communities along the value chain. Although manure sales generate higher incomes for pastoralists and other livestock keepers, many small and marginal farmers in rainfed regions suffer from rising manure prices resulting from increased demand. As a result, these farmers rely more heavily on subsidised chemical fertilisers, which further degrade the already fragile soils and exacerbate existing inequalities.

state was ideal for studying how manure is distributed over the landscapes, as Karnataka offers an exceptional mix of crop-livestock farming systems, including large plantation agriculture. The state's geography is just as diverse; stretching from the dry, semi-arid plains of North and South Karnataka to the lush, rain-soaked evergreen rainforests of the Western Ghats. Kodagu (Coorg), located in the Western Ghats in southern Karnataka, is a critical coffee production district, with a quarter of its area under coffee plantations.

Manure from goats, sheep, and native cattle and buffalo breeds is highly prized in coffee plantations thanks to its rich nutrients and its ability to rejuvenate tired soils. Used over time, it boosts the soil's biological life and helps rebuild nitrogen, phosphorus and organic carbon – all essential ingredients for coffee plants. For organic coffee growers, this earthy resource is gold: a natural input that feeds the soil and lets great coffee grow.

| Who Produces the Magic Ingredient?

The national livestock census data provided the starting point for tracing the path of livestock manure. Most manure producers (hot spots of livestock concentration) live in the drier parts of the state, especially in districts classified as semi-arid or prone to drought. The manure value chain begins at the level of farmers who practice mixed crop-livestock farming. In irrigated zones, farmers tend to focus on cash crops and dairy production. In contrast, the drier districts depend more on dryland agriculture and livestock. Here, pastoralists rear especially indigenous cattle, buffaloes, and small ruminants.

Pastoral systems rely on a mix of land types like common lands and fallow fields to feed their animals. Many households involved in these production systems are landless or own very small plots. They typically belong to lower social groups and depend heavily on livestock for their livelihoods.

In addition to the sale of milk and live animals, income from manure was also high but varied based on the mobility of the animals in the system. For example, in agro-pastoral systems, manure was pooled in backyards and sold to farmers within the village at the start of the crop season and to manure traders as per demand and price. In nomadic pastoral systems, penning animals in farmers' fields was practiced during their migration period; in the non-migration periods, the pooled manure was sold to farmers or manure traders.

| Manure Trade Value Chain

Manure becomes increasingly important as a commodity, driven largely by the expansion of commercial agriculture – particularly cash crops, plantations, nurseries, and orchards. A locally exchanged by-product evolved into a structured and far-reaching value chain. This chain typically begins with livestock-keeping households that sell manure, followed by primary aggregators collecting it across clusters of villages. At the next level, secondary market actors consolidate manure from multiple clusters and sell it in bulk or in value-added forms to final consumers.

This growing trade is sustained by an extensive network of manure traders and large-

'All our income comes from our Hallikar cows, a native cattle breed. We sell manure by truck loads twice a year along with some milk and bullocks. Grazing is compulsory every day as it is not possible to feed them in the shed,' says a livestock keeper from Chamrajnagar, Karnataka.

ly comes from socially dominant groups. Manure aggregation occurs through multiple tiers – ranging from small local traders and large market yards to specialised actors marketing manure with organic certification. Producer households also at times take on the role of aggregators when the demand is high. These largely informal networks often extend

beyond district and even state boundaries, reflecting the emergence of geographically expansive and interconnected networks.

Prices vary widely across locations, shaped by demand, transportation distances, labour, and other costs. Manure from sheep and



Photo: Sajal Kulkarni

goats consistently attracts higher demand and better prices than manure from cattle as it is considered nutrient richer. Quality standards also shape the trade, with buyers preferring manure that is free from chemical residues, stones, sand, or other impurities – echoing the market logic.

Who is buying?

Across this expanding manure economy, the buyer base is diverse: from large plantations to small and medium-sized landholding farmers, landscaping firms, and organic input and certification companies. Among these, the plantation and horticulture sectors accounted for the largest share of demand,

particularly those who are transitioning to organic farming.

In Karnataka, Kodagu district – better known as Coorg from its colonial past – stands out because of its coffee plantations and has emerged as the largest market for manure. Coorg lies in the lush, forested regions of the Western Ghats of India and accounts for 44% of coffee production in the state. Coffee plantations are blended with sizable quantities of other crops and spices such as paddy, pepper, and ginger. The plantation economy is integral to the livelihood economy to the people of Kodagu. Although coffee growers rely on chemical inputs and traditionally use compost available within the farm or district, they

Pastoralists usually migrate with their animals for six to nine months of the year. During the monsoon season they pen their animals at their homesteads. The dung collected is sold to farmers. It is an important source of income when at home

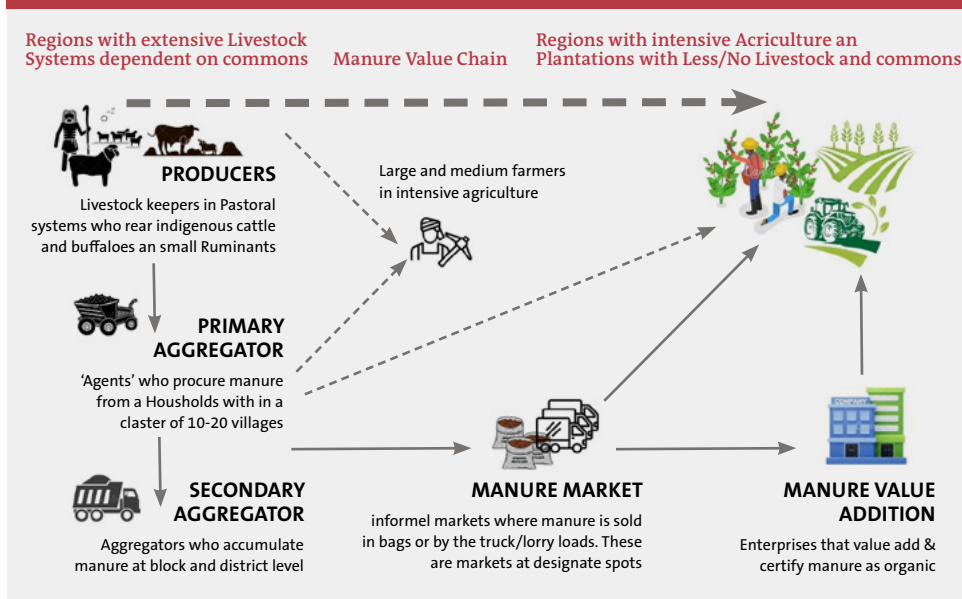
have recently shifted largely to importing manure in bulk from other districts or outside state boundaries. There are several reasons for this: decreased livestock in the district due to significant land use change, human-wildlife conflicts, and increasing management costs. Coffee farmers also claim that there is a steady rise in demand for organic manure. The manure market is set to grow further in the years ahead.

For coffee farmers, pastoralists' livestock is the only reliable source of 'high-quality manure'. They prefer manure from free-ranging animals as they graze on diverse vegetation, which is believed to result in a nutrient-rich manure. Manure from indigenous livestock breeds is also favoured over that of exotic or crossbred animals, as pastoral livestock is perceived to contain little to no antibiotic residue.

Who sustains whom?

Manure connects regions dominated by extensive livestock keeping and those of intensive agriculture that require large quantities of manure but have limited livestock populations and shrinking commons. Pastoral communities, their indigenous livestock, and the common lands they depend on are quietly sustaining organic farming within these intensive agricultural systems. Without this critical linkage, a meaningful transition from chemical to organic farming would be impossible.

The manure trade value chain



P.S. Madappa is a development practitioner with a particular interest in human-animal relationships.



Bhavana Kuchimanchi is a research and strategy manager specialising in sustainable arable farming and livestock systems.

Beyond the Headlines

The Untold Story of Farmer-Herder Cooperation in Nigeria

| Julia Krojer and Morenike Onaolapo

The clouds hang heavy in the sky. It is still too early to take the cattle to pasture. At a motorised borehole on the edge of a village, herders gather around the watering trough with their cows and goats. In addition to the water, the herders provide salt for their livestock. A morning ritual of care. The love for their animals is visible.

'Ekaro!' – Good morning! – the women farmers and herders greet one another in Yoruba, the farmers language, as they meet by the shared water point. Here, everyone draws from the same source. Many pastoralists speak Yoruba as fluently as Fulfulde, their mother tongue. A few years ago, such an easy, respectful exchange would have been unthinkable in the Adejuwo community in Osun State.

The roots of mistrust run deep in south-western Nigeria. Generations still recall the story of Afonja, the military chief of the Oyo Empire in the eighteenth century, who rebelled against the king with the help of Fulani warriors. The alliance ended in betrayal: Afonja was killed, and the Fulani established a lasting presence in the region. His story became a parable that was handed down from generation to generation as a warning that loyalty to one's own

people matters more than the thirst for power.

Today, echoes of that past still shape perceptions between Yoruba farmers and Fulani herders. But new pressures have added layers to the old fears.

For decades, Nigeria's smallholder agriculture has been sidelined by the oil boom; political attention flowed toward the 'Petrodollars', not the fields that feed the nation. Climate change has worsened the crisis. In the north, erratic rainfall, drought, and zoonotic diseases (e.g. brucellosis caused by drinking raw cow's milk) as well as terrorism and banditry are driving pastoralists southwards in search of greener land. Population growth, industrial expansion, and the real estate boom are reducing available farmland countrywide.

Never before have farmers and herders lived so close together. Across Nigeria, their encounters have too often ended in flames: crops trampled, cattle shot or poisoned, lives lost. Fear is etched in the faces of both sides – farmers fearing for their harvests, herders for their herds. Politicised narratives deepen the divide, turning local disputes into symbols of ethnic rivalry, or focus attention on religious interests. The price of endless conflicts is high at all levels: it is an economic burden on the nation, destroying both the livelihoods of the rural population and trust. But in Osun State, a different story is unfolding, one of peaceful transformation.

| Listening for a Peaceful Change

'In the year 2018, seven years ago JDPMC reached out to me during festivities on the need to connect with pastoralists in the community for a meeting, and that was the start of where we are now,' explained Oseni Adekomi, a farmer and vice-chairman of the Adejuwon community. The Justice, Development and Peace Makers' Centre (JDPMC) of the Catholic Diocese of Osogbo uses the bottom-up approach for positive change in agrarian communities.

Morenike Onaolapo, project manager for the rural development project, and her team

began by listening. They visited both farmers and pastoralists, asking questions, documenting grievances, and mapping settlements. What they found was sobering: more than

300 pastoralist camps across the state, most of them without clean water, veterinary care, and with poor access to markets. Outbreaks of diseases like foot and mouth disease and contagious bovine pleuropneumonia were decimating herds. Abdulah Adebayo, a young herder, recalls: 'When

the animals fall sick or we do not have enough water, we have to move further for grass and water.' They realised that peace would begin where daily needs were met — in the case of Osun, with water, health, and dignity.

| From Aid to Trust

During the COVID-19 lockdown in 2020, JDPMC distributed food and hygiene packages to 150 pastoralist families. The gesture was small, but symbolically powerful, and an opener for dialogue. Soon after, veterinary teams began treating cattle and offering vaccinations. Within two years, more than 6,000 animals had been reached. Milk yields rose, diseases declined, and herders began to feel acknowledged rather than excluded. 'Before, we thought no one cared about us,' said pastoralist Alhaji Kelani Mahmoud, 'but now we know we are part of this land.'

Access to water proved just as transformative. JDPMC helped communities to construct water provision systems for humans and livestock alike in 14 settlements, reducing the workload of women and children and the long, risky treks they once made to rivers. At the water point, farmers and herders now meet each morning. The same land that once marked their divisions has become a gathering place of peaceful coexistence.

| Inclusion Brings Confidence

Pastoralist women, once invisible in such programs, are now actively involved in planning meetings and training sessions for cheese-



Photo: Julia Krojer/Misereor



The welfare of their animals is pastoralists' top priority, but access to veterinary services is often poor. Calves being vaccinated in 2025

making and soapmaking led by female field officers. Their presence strengthens families and fosters dialogue. Young herders, often blamed for farm invasions, have been trained as para-veterinarians. They learn to treat sick animals, foster victim calves and manage pastures. 'Drugs overdose was the mistake we made while taking care of our cattle,' remembers Adebayo.

Once basic needs were met, a sense of belonging was stimulated, and dialogue began naturally. JDPMC facilitated local peace committees and an annual Stakeholder Interactive Forum, formerly known as the Farmers' Forum. Early meetings were tense. Now both groups participate equally and agree on topics of mutual interest, coordinate grazing routes and harvest times, and share access to water points. The sustainable agriculture annual calendar became a joint measure including both sides' activities.

'Before, when cows entered our farms, we shouted and threatened,' says Ajeigbe Ademola, a farmer from the Idi-Odan community. 'Now we call the herders politely, and they respond. Respect has replaced anger.'

| A Visible Shift

In 30 surveyed communities, veterinary data shows that cases of major cattle diseases have dropped to near zero. Social changes are equally visible: herders in Egbedore helped repair a community borehole, while farmers in Ilesa assisted in transporting veterinary supplies, and a hunter in Abalode killed a python that was in the process of strangling a calf. People who were once enemies now cooperate in meaningful ways.

During the annual interactive stakeholders' forum, former rivals dress in the same patterned fabric to symbolise unity. The land around the boreholes has been designated

community land, freely shared by farmers and pastoralists alike. 'It took time, patience, and openness,' Onaolapo says. 'But trust grows when people are seen and heard.'

| A Model for Nigeria

The farmer–herder conflict remains one of Nigeria's most persistent and politicised challenges. Yet Osun's experience shows that peace does not come from armed patrols or decrees, but from empathy, shared responsibility, and practical cooperation.

JDPMC's work demonstrates that development and peacebuilding are inseparable: a vaccination campaign can serve as conflict prevention, and access to water can become a form of reconciliation. The organisation now advocates for stronger state engagement, including effective systems for cross-border and inter-state mobility management. JDPMC's work demonstrates that development and peacebuilding are inseparable: a vaccination campaign can be both conflict prevention and reconciliation. The organisation now advocates for stronger state engagement, such as cross-border mobility management and investment in rural infrastructure.

Osun's story offers hope that peaceful coexistence is possible when people's realities are heard and addressed. In this corner of Nigeria, peace is not the absence of conflict but the presence of dialogue and the quiet trust in one another. | |

History of Fulani Herders in Osun State

Ilorin Fulani (Borgu'en / Yoruba Fulani):

Arrived around 1960 from Ilorin. Fully settled and integrated; speak Yoruba, follow local housing styles, and intermarry with locals. Boys start herding early, though some attend school or learn trades. Often trusted by elites and sometimes manage cattle for traditional rulers.

Hausa-Fulani (Katsina & Kebbi):

Migrated around 1990. Settled communities speaking Fulfulde; children often bilingual. About 65% use Yoruba-style housing. Boys herd from age five, with limited schooling. Maintain ties through gifts and herding for influential locals.

Bororo Fulani (Niger, Zamfara & Kebbi):

Arrived after 2010. Settled and semi-settled groups; the latter migrate seasonally, are often armed, move without families, and reject traditional Fulani leaders. Strongly affected by climate change and northern insecurity.

Things in Common:

Most families mix herding with small-scale farming; men own cattle, women keep goats and poultry. Most herders belong to associations such as the Miyetti Allah Cattle Breeders Association of Nigeria (MACBAN) or Jamnaatu Fulbe Association.



Morenike Onaolapo
manages the JDPMC Rural Development Programme in Osogbo and has worked in this field for 20 years.



Julia Krojer
has been head of the MISEREOR Dialogue and Partnership Service in Nigeria since 2022 and works as a photojournalist.

‘Our Cows and Your Crops are Children of the Same Rain’

How Farmers and Herders Remained United



Photo: Andrew Msami

Livestock had to make way for the Kilombero Game Reserve in Tanzania. This herder lost a large part of his customary grazing lands in 2025

During the wet season, for instance, herders moved their livestock to distant pastures, leaving the land to fallow, easing pressure on villages and protecting crops from damage. While after harvest, herders were allowed to let their cattle graze on the fallow land, which also supports the crop yields for farmers as the land is enriched by manure.

| Displacement and Justice Gaps

Caused by the expansion of conservation areas in 2022 enforced by the Tanzania Wildlife Authority (TAWA) and the Tanzania Forest Services (TFS), the process of peaceful coexistence was suddenly disrupted by evictions and land reallocation. Nearly 800,000 hectares from 51 villages registered with customary right of occupancy in Malinyi, Ulanga, and Kilombero were annexed and (some) traditional land titles of local farmers and herders not considered. In Mbalinyi, Mabanda, and Kilosa Mpepo, villagers reported that their forests and grazing land were transferred to TFS and the Kilombero B Game Reserve. Farmers say that TAWA pushed herders from grazing zones into farms, turning a state-driven land grab into a local conflict. People lost fields, grazing areas, livestock routes, and faced arrest. The families who lost land were moved to poorer areas, and others were hired as

| Andrew Msami and Dule Thadei

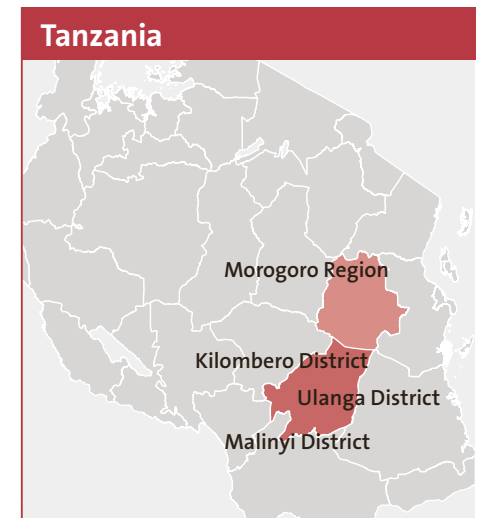
In the Ulanga and Malinyi districts in Southern Tanzania, pastoralists (mainly Sukuma and Barbaig, and some Kurya) and farmers (Ndamba, Pogoro, Ngoni) share one key resource: land. Yet land policies, expanding conservation zones, have blocked corridors and negatively impacted their land use. Some families have been evicted or displaced and now face an insecure future. However, as one elder said, ‘We were uprooted from the soil, but not from hope.’

| Living the Vision: Peaceful Coexistence between Pastoralists and Farmers

In the region, rainfall patterns, forest loss, and soil degradation have challenged farmers and herders. Farmers in Mabanda say fewer forests mean smaller rivers and poorer soils. The loss of grazing areas and the shrinking of rivers have increased cattle mortality and weakened

the pastoralists’ resilience and their capacity to adapt to climate change. Scarce resources, a lack of governance, and the marginalisation of the Sukuma herders from the north, who have migrated to the area in recent decades, were among the factors that contributed to conflicts between the groups.

In this context of precarious natural resources and tense relationships, Caritas Mahenge has been supporting around 1,050 farmers’ and pastoralists’ households, rebuilding livelihoods, and linking them to discuss common issues on land since 2020. Through dialogue, participatory land-use planning, and conflict mediation, the communities addressed disputes. Improved grazing plans and climate-smart farming, implemented by local pastoralists and farming families with support from Caritas, have helped these households to secure income, protect the environment, and reduce land use conflicts. Church-led reconciliation has provided guidance for unity, resilience, and shared land. The pastoralists and farmers increasingly exchanged goods, allowed livestock to graze crop residues after harvest, and jointly managed the use of land and natural resources.



Tanzanian Policy on Pastoralists

Since independence, Tanzanian governments have pursued a policy of forcing pastoralist communities to settle down, following the colonial model. Under the Ujamaa social model, they were forcibly resettled to unproductive areas. Later, their land was fragmented; grazing land, water, forests, and salt pans were lost, and cattle routes were blocked. Today, pastoralist communities are socially, economically, and politically marginalised. Since 2021, the government's policy towards pastoralists has become even more repressive. Tourist camps and recreational sites are being built on their land. Violent evictions and disregard for their rights are on the rise

across the country. Their health and education facilities have been closed, and their voices and resistance silenced. Government seeks modernising and commercialising animal husbandry through improved veterinary services and credit schemes. However, this implies abandoning mobile livestock herding, local knowledge systems, and pastoralists' identity and culture. The greatest challenge facing the Tanzanian government today is how to reconcile the modern economy with the people without sacrificing indigenous communities such as the Maasai.

For fear of possible persecution, the author remains anonymous.

labourers on the game reserves within village land. In the Caritas project area, approximately 100 herder households supported through project interventions were affected.

The government justified the annexation of land on the grounds of national image, conservation, climate protection, and law and order. While the Ministry of Natural Resources and Tourism has been portrayed as a guardian of nature, local farmers and pastoralists were portrayed as a 'threat'. However, local officials enforced national land and conservation policies without consultation, setting the stage for growing tensions. In fact, village leaders and TAWA staff have reshaped land boundaries in ways that sidestep the 1999 Village Land Act, eroding trust with decisions made behind closed doors.

The affected communities now face hardship and insecurity. As one elder put it, 'We walk with our cattle, but our hearts have nowhere to graze.' In this shifting landscape, women pastoralists in particular find themselves being pushed to the margins, as one elder woman said, 'They come with their maps, but not our lives.' Her words echo a bitter reality as again and again, choices about land are made about pastoralists and farmers – rarely with them.

Despite these pressures, farmers' and herders' communities in the Caritas project area remain united in defending their shared livelihoods. Clashes are rare. They still plan to regain access to land and maintain cooperative relations, even as conservation areas continue to expand.

| Connectedness to Land

For the displaced communities, land remains sacred, a link that binds generations. Pogoro farmers and Sukuma pastoralists hold ceremonies and gatherings on the land, they speak to the land, whisper prayers, to the 'migrated' land. A story from Mabanda recalls: 'We still dream of planting again where our fathers did.' Their unity is a demand for justice, dignity, and belonging. Pastoralists and farmers recall the period before the 2022 evictions, when cooperation was growing. Herders brought manure; farmers exchanged grain for milk. New conservation boundaries have since reshaped village lands and increased strain, yet shared belief: 'When we share the river, we both drink peace.'

Yet communities continue to adapt. Together, the two groups set up new rules. In Kilosa Mpepo village, for instance, farmers and herders protect riverbanks by setting livestock watering points away from the rivers and setting aside village forest reserves for dry-season grazing. This reduces erosion and pollution, improves water quality for animals and irrigation, and has brought back fish in some areas. Also tree-planting campaigns have strengthened their cooperation. About 1,050 households plant trees on communal land and field borders. Herders select trees such as acacia ('Mgunga') for fodder as well as neem and fig trees for medicinal use while farmers plant trees for fuel, timber, and shelter, as well as fruit trees that enrich the soil. The shared use of medicinal and timber trees turns potential conflict into joint recovery and secure livelihoods. Both measures, which are being carried out jointly with Caritas Mahenge, are part of a strategy to better protect the remaining land and resources in order to be able to use them effectively in the long term. In Ihowanja village, pastoralist and farming women are restoring livelihoods through joint farming, milk sales, and savings groups. Youth groups in Kilosa Mpepo and Malinyi practice mixed farming and use sessions to learn about land rights. One young person said, 'We were evicted, but not erased.' These stories demonstrate that women and youth foster resilience among both pastoralist and farming families.

| Take-aways

Faith-based peacebuilding and participatory governance has proven to foster growing ties between farmers and pastoralists – an experience Tanzania should build on. When rooted

in dialogue, livelihood support, and justice, these approaches may create the basis for lasting peaceful and synergetic coexistence.

In the Ulanga and Malinyi districts, pastoralists and farmers are reclaiming a legacy of peace and hope by leading dialogues and standing together. By opposing exclusionary policies, they affirm that land is a sacred bond across generations and that evictions cannot destroy their unity.

By empowering women and youth, communities boost adaptation and peace, insisting that good governance must include all voices. Their efforts, guided by faith and solidarity, offer hope and confirm the wisdom that 'our cows and your crops are children of the same rain.' At the heart of this struggle is the right to food and land to secure livelihoods. During the International Year of Rangelands and Pastoralists in 2026, Ulanga and Malinyi stand as examples of care, dignity, and coexistence. | |



Andrew Msami

is an economist and advocate for indigenous pastoralists and hunter-gatherers, advancing land rights and justice in Tanzania.



Dule Thadei

is an agricultural engineer. He supports farming and pastoralist communities and fosters their peaceful coexistence.

Call to Action

Report on The African Pastoralist Gathering in Nairobi, January 2026

| Saverio Krätli

I spent three days in Nairobi listening carefully. Some 150 people from 11 African countries had gathered at the Kenya School of Monetary Studies – mostly pastoralist civil society leaders, alongside advocates and researchers. There was a strong East African presence, as one would expect, and a substantial presence of women and young people, visibly shaping discussions. The task before us was clear and ambitious: to contribute to a Common African Pastoralist Agenda to be carried forward to the global gathering for the International Year of Rangelands and Pastoralists (IYRP) and to COP17 in Mongolia.

Over the course of the meeting, I heard many speeches. Some were passionate, others technical; some cautious, others aspirational. One intervention stayed with me for its precision and courage.

Abdel-Latif Awad Fizzani, secretary-general of Chad's Ministry of Livestock and Animal Production, did something rare at this kind of forum – particularly coming from someone in such a senior institutional position. He spoke of pastoralism as a core political and economic system, and of rangelands as natural infrastructure. He framed mobility, ecological diversity, and pastoral knowledge not as vulnerabilities to be compensated for, but as productive assets that already sustain markets, regions, and social stability.

Writing from the outside, it is often tempting to extract general lessons or translate the message into recommendations, but that feels unnecessary here. The speech already does that work, and does so plainly enough to travel. I therefore quote it directly:

It is an honour to come together as African brothers and sisters to prepare for a historic milestone: 2026, the International Year of Rangelands and Pastoralists (IYRP).



I come from a country, Chad, where pastoralism is not a marginal economic activity. It is the very soul of our economy and the backbone of our society. In my country, pastoralism is a central pillar of public policy. It represents a major contribution to our GDP, to the food security of both our cities and rural areas, and to the socio-economic stability of millions of our fellow citizens.

I would like to recall that Chad has immense potential. This potential rests in particular on three pillars: the mobility of our herds; the exceptional diversity of our rangelands, stretching from the Chadian Sahel to the Sudanian zone; and above all, the ancestral knowledge of our pastoralists.

I would like to share with you a strong conviction that we hold within the Ministry. For us, pastoral rangelands are not simply

empty spaces where grass grows. They are genuine natural infrastructures. Just like a road or a dam, these rangelands are indispensable to livestock productivity. This mobile system enables a unique capacity to adapt to climate shocks and ensures the regular supply of our markets – not only in Chad, but across the entire sub-region and beyond.

However, we must be clear-eyed. Despite its vital importance, this sector is facing strong headwinds. Major challenges threaten this mode of production and way of life: the alarming reduction and degradation of rangelands; the uncontrolled occupation of transhumance corridors and pastoral resting areas, with the regrettable consequence of agro-pastoral conflicts; and, of course, the increasingly severe impacts of climate change. These challenges directly



Photo: IMPACT

A buzz group discussion during the conference attended by pastoralists from 11 African countries

The Ministry of Livestock and Animal Production of Chad reaffirms here, before you, its unwavering commitment to making pastoralism a strategic pillar of sustainable development.

The IYRP 2026 must under no circumstances be a year of symbolic celebration but rather a year of political transformation. Supporting pastoral rangelands means strengthening climate resilience. It means guaranteeing food security. But above all, it means consolidating social peace.

Read alongside Abdel-Latif Awad Fizzani's intervention, the [Call to Action](#) adopted in Nairobi is a document doing the work of holding a diverse pastoralist coalition together. Its broad convergence around rangelands as a key resource, mobility as a condition of productivity and resilience, and pastoralism as an economic system capable of working with climate variability echoes the core logic of the speech. Where the Call to Action appears more cautious – most notably in its treatment of offsetting schemes – this reflects not only the pressures of collective authorship, but also the constraints of an operating environment in which climate action has been channelled almost exclusively through compensatory logics. The consequential question is whether the spaces tasked with policy clarification, including the IYRP, will resist translating that necessary caution into yet another accommodation of business as usual. | |



Saverio Krättli

works as a consultant and specialises in working with nomadic pastoralists. He is editor of the scientific journal *Nomadic Peoples*.

affect livestock productivity and threaten our social cohesion.

Chad intends to use the IYRP platform to strengthen political recognition of pastoralism and to mobilise technical and financial partners around structural investments, rather than purely humanitarian responses. However, national action alone is no longer sufficient. That is precisely why we are here today.

As one of our ancestral sayings reminds us: 'If you want to go fast, walk alone. If you want to go far, walk together.' For African pastoralists, the road has undoubtedly been long and difficult. But today, we choose to walk together, with one voice, towards a future in which the dignity of pastoralists is recognised and celebrated.

An Indian Smallholder and a Camel Herder in Conversation

Interview by Ilse Köhler-Rollefson

Interview with Madhura Raika (MR), Camel Herder, in the Presence of Sum-er Singh (SS), Small Mixed Farmer on 17 September 2025. They are located in the Godwar area, at the edge of the Thar Desert in Rajasthan, India. Both of them are associated with Lokhit Pashu Palak Sansthan a charity for pastoralists and know each other.

Question: How are relations between herders and farmers in this area?

MR: Good. We depend on each other. When our camels stay on farmers' fields, they give us food and tea in exchange. When the camels stay in my village for longer periods, my wife sweeps up the manure and then exchanges the pile for wheat.

Comment by SS: We don't have camels but we have sheep and goat herds staying on our land. The herders cut branches from the trees to feed the animals, and then use these to strengthen the hedges around the fields. This is good for them and for us.

Question: Have there been any changes in the relationship?

MR: Yes, earlier it used to be better. Now, many farmers use chemical fertiliser and don't need us as much.

Question: Could the government do anything to improve your relations?

MR: Yes, it could stop making chemical fertiliser available!

Comment by interviewer: what difference would that make to the crop?

SS: It would still grow, but not as high ... But, the camels of Hariram stayed for several months on the fields of Punaram, and his maize grew amazingly high!

Pastoralists in Distress

What Needs to Be Done?



A goat herder with his flock outside the Lake Turkana Wind Power Project in Kenya. The idyll is deceptive: many pastoralists have lost grazing areas due to land conversion

Photo: Eduardo Soteras

| Rufo Roba Compagnone; Sabine Dorlöchter-Sulser, Ilse Köhler-Rollefson and Bhavana Kuchimanchi

Their contributions are undeniable: pastoralists manage ecosystems, preserve livestock diversity, produce food with minimal environmental impact, and have co-existed with farming communities for thousands of years through mutual exchange and cooperation. The injustice is equally clear: their lands are being seized, their rights ignored, their voices silenced. As the 2026 International Year of Rangelands and Pastoralists unfolds, this concluding article reflects on what these stories teach us and what must change.

The Importance of Pastoralism

Pastoral communities have shaped the landscapes of our planet for thousands of years. In many countries, they are central economic and social pillars. Thanks to their skills as professional herders and their deep understanding of rangelands, they harness their potential and ensure that livestock herds thrive and ecosystems remain intact. Pastoralists are masters of herd management under uncertain conditions, drawing on knowledge systems that have been developed over generations. Pastoral landscapes are their 'critical infrastructure'

and animals are part of their family and cultural identity.

Mobile livestock systems make a major contribution to food security, national value creation, and exports. Pastoralists are active landscape managers who ensure the preservation of grazing lands and uphold their biodiversity. Because their herds feed exclusively on natural vegetation and crop by-products, they are climate-neutral – in contrast to industrial livestock farming, which depends on fossil fuels that cause high emissions. Their migratory movements distribute nutrients over large areas, ensuring soil regeneration and preserving the grass cover. Finally, pastoralists are the guardians of a large diversity of livestock breeds equipped to cope with climatic extremes.

Fruitful Exchange between Pastoralists and Farmers

Mobile pastoralist communities and settled farmers have coexisted since the beginning of agriculture some 9,000 years ago. The articles in this dossier document the diverse and mutually beneficial relationships and joint forms of resource use that have developed between these groups. Over generations, organic nutrient cycles have

developed: pastoralists supply milk, meat, working animals, and manure, while farmers provide grain, access to water, and protection. Even now, many of these relationships continue to exist and also new market-based synergies develop – for example, with an organic coffee-growing zone in India, whose producers value the supply of high-quality, chemical-free fertiliser from pastoral systems.

Conflicts and the Role of the State

Pastoralists are often portrayed by the media as drivers of conflict, even though [conflict statistics](#) do not confirm such perceptions. Conflicts tend to arise when state and other institutions convert their land without consultation, destroy traditional agreements or displace communities. However, as the publication shows, conflicts between pastoralists and farmers can be overcome. To achieve this, the specific needs and priorities of both groups must be addressed equally. Only when everyone feels they are being treated equally can dialogue begin and trust between the parties grow. Shared access to water can thus become a meeting place from which forms of cooperation can emerge: the joint negotiation of rules for access to and use of natural resources, the establishment of livestock herding trails, and peaceful coexistence in a shared rural space.

The attitude of many governments toward pastoralism remains ambivalent to this day. Quite a few mistakenly consider pastoralism incompatible with a 'modern' emerging nation. The contributions of pastoralists to the national economy, history, and culture are not recognised or acknowledged. Such a view of pastoralism reproduces colonial narratives and marginalises pastoralist communities politically, socially, and economically. Instead of actively involving pastoralist communities, decisions are made over their heads and the land to which they had customary rights is made available for other uses against their will.

Pastoralists Are under Acute Threat

Despite their enormous contribution, pastoral livestock farming systems around the globe are in many cases under existential threat. Without regard for traditional

land use rights, places of worship, or the ecosystem, grazing lands are being converted on a large scale into solar parks, monocultures, mining facilities, and 'green' energy projects.

The consequences are dramatic: strategically important grazing areas and fallback zones are being lost, transhumance corridors are being blocked, and government measures are displacing herders and their herds, hence making them vulnerable. The increasingly negative effects of climate change are exacerbating the situation, and decades of misguided development programs have weakened the social institutions of pastoralist communities.

The state has a key role to play here. It must create adequate framework conditions that safeguard mobility, grazing rights, access to resources, and the self-determination of pastoralist communities. It must ensure that decisions are made with, rather than against, the communities affected.

Key Demands

It is time for a change in the political discourse. Pastoralism must be recognised and strengthened as a sustainable, climate-adapted, and socially valuable system. This includes comprehensive legal protection of pastoral communities' mobility and traditional Land (commons), grazing and water rights, granting them the space they need. There is also a need for policies that take pastoralists' priorities seriously and actively involve them in the design of enabling legislation and decision-making processes.

Pastoral areas are increasingly used for CO₂ 'offsetting', as a means of compensating for the climate gas emissions of industries. However, this misses the purpose and instead we need to recognise and reward the general role of pastoral systems in preserving grasslands that serve as crucial carbon sinks. We hope that the International Year of Rangelands and Pastoralists in 2026 will initiate a genuine paradigm shift – away

from exclusion and towards respect, political empowerment, and the protection of a way of life that is indispensable for the future of our planet. ||



Sabine Dorlöchter-Sulser, is a sociologist and geographer and has been rural development officer at Misereor since 2001.



Rufo Roba Compagnone is a pastoralist, communications expert and PhD student. She works with pastoralists to develop digital solutions.

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Concept and editing: Sabine Dorlöchter-Sulser (MISEREOR), Ilse Köhler-Rollefson (LPP), Rufo Roba Compagnone (DITSL), Bhavana Kuchimanchi (FES), and Bernd Ludermann (welt-sichten).

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Responsible in terms of the law:
Sabine Dorlöchter-Sulser, MISEREOR

Contact:
sabine.dorloechter-sulser@misereor.de;
afrika@misereor.de.

Editorial office „welt-sichten“
Postfach 50 05 50
D-60394 Frankfurt/Main
www.welt-sichten.org

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