



*At a time when several West African countries have been outspoken in promoting the creation of livestock ranches within their borders, the issue is increasingly generating a public debate. For some, ranching symbolises a modern and highly efficient livestock production system. For others, it remains a subject fraught with concerns and questions: what would be the implications?*

## 1. The roots of livestock ranching

Ranching was initially introduced in North America's western plains, reaching its peak during the second half of the 19th century<sup>2</sup>. At first, cattle ranches were made up of unfenced land called open range. Ranchers were only granted user rights on the rangelands, but had exclusive access to water points (rivers, dams). In order to mitigate the rigours of winter in the north and dry summers in the south, seasonal transhumance - although often hazardous<sup>3</sup> - proved essential. Squeezing out competition from small livestock holders, ranches grew rapidly in size, concentrated in the hands of a few "cattle barons"<sup>4</sup>. Among them, the legendary Charles Goodnight exemplified the basic principles of ranching and demonstrated the keys to success: access to markets and to vast natural grasslands; plentiful labour; sturdy animals, and livestock mobility.

From his home base in Texas, Goodnight entered the cattle business in 1856, taking advantage of the growing market for beef in the mining towns of Wyoming. In order to secure access over wide areas, he introduced a unique method (the "crazy quilt") which consisted of acquiring a large number of small plots of land without any real apparent value. Scattered over a large area, these purchases indirectly provided him with full control over vast rangelands. By cross-breeding the Texas Longhorn with the British Hereford, he obtained heavier cattle, but tough enough to survive on the plains. He employed teams of cowboys as herdsmen. Fully aware of the expanding railway network<sup>5</sup>, he pioneered long-distance trekking on-the-hoof by opening trails over considerable distances which intersected with the railroad<sup>6</sup>. In order to facilitate provisioning during cattle drives, he invented the chuckwagon, or mobile "field kitchen". Finally, he founded a powerful ranchers' movement (the Panhandle Stock Association) which succeeded in overcoming the recurrent problem of cattle rustlers.

However, the start of the 20th century marked the decline of ranching. In 1874, an Illinois farmer invented and patented barbed wire which resulted in fragmenting rangelands, while allowing new settlers to secure land for agriculture. Violent conflicts between farmers and ranchers over access to land and water ensued. In parallel, the reduction of pastoral resources prompted overstocking on the remaining rangelands and, subsequently, a significant drop in livestock productivity. In the years 1885-1887, cold winters were followed by summer droughts, leading to massive animal losses and forcing many ranchers into bankruptcy. The Great Depression and the 1936-1938 drought were the final blow. Not until the post-war years would a revival in ranching be seen, although in other forms. Nowadays, American ranches serve as fattening centres, integrated into large scale agri-food companies, some of them specialising in livestock feed or canning.

Ranching had also spread to the semi-arid "great plains" of Western Canada, as a direct response to the consumer market created by the Gold Rush during the second half of the 19th century. Furthermore, after 1880, the expansion of the Canadian railway network enabled livestock to be freighted eastwards to the Atlantic ports for export to Great Britain. Similarly, ranching developed and thrived in other arid and sparsely populated regions of the world, with little competition from agriculture, such as Australia (cattle, sheep), and the pampas in Argentina (where large livestock estates were already established in the 18th century). Ranches can also be found in countries where proactive export policies have overridden concerns about equitable land distribution and wealth sharing, for instance, in Southern Africa and in Brazil - where it is also linked to the clearing of the Amazonian rainforest. Essentially designed to ensure large-scale livestock production, ranching has enabled all these countries to become the world's leading meat exporters.

1. This policy brief has been prepared in the context of the BRACED Programme (UK-Aid), and co-produced with the PRAPS-CILSS Unit. However, the views and opinions expressed are those of the authors only.  
2. From an historical perspective, the expansion of ranching in the American West is linked to the extermination of the wild bison and to the forced removals and confinement of the First Nations (American Indians) in reservations.  
3. In his travel log, a cowboy called W. Penil reported that during a transhumance a storm killed one third of the herd, 58 horses were stolen, and no source of drinking water was found on the route. While crossing the Utah desert, he was obliged to drink the blood of the horses.  
4. By 1885, only 35 "cattle barons" controlled 8 million hectares of rangelands and owned nearly 1.5 million cattle.  
5. In 1877 a meat packing businessman in Chicago developed a refrigerated train wagon. Meat could be transported all over the US.  
6. For instance, the Goodnight-Loving Trail originated in western Texas (Young County) to connect southwards to Fort Sumner in New Mexico and northwards to the railhead at Denver, Colorado.

## 2. Ranching in West Africa: a long history

Ranches in West Africa comes in a variety of forms and names according to their objective, their design, and their management system. Four main types may be identified.

**Research ranches (or stations).** Created by the State, their main objective is to improve the genetic make-up of local breeds (sometimes crossed with exotic breeds) in order to increase their performance. In Côte d'Ivoire (RCI), the Toumodi Ranch (16,000 ha) was established in the 1960s to promote the dissemination of the N'Dama cattle. In Benin, the Samiondji Ranch (5,000 ha) was created in 1975 to preserve the Lagunaire breed. In northern Ghana, the Pong Tamale Ranch focused its research programme on both small ruminants and the West African Shorthorn zebu. In the Sahel, the Toukounous Ranch in Niger (45,000 ha) has been working since 1954 on the Azawak zebu. Following the drought of 1973, this work expanded with the creation of several multiplication centres throughout the country which also researched the Bororo zebu and the Kouri taurine from Lake Chad<sup>7</sup>. In 1960, the Niono Ranch in Mali (11,000 ha) initiated its research activities on Moorish and Fulani zebu cattle.

**Fattening ranches.** This type of ranching (Doli in Senegal, Ekrafane in Niger, Ouadi-Rimé in Chad) was introduced in the 1960s as a strategy to increase beef production, both for the local market and regional export. Highly integrated in the livestock value chain, their approach was straightforward: buying young animals (e.g. one-year-old calves) from breeders (herders) living nearby, fattening the calves for 2-3 years on the rangeland inside the ranch (sometimes followed by a short period of trough feeding for final fattening), before marketing them. These ranches pursued a commercial objective while attempting to improve the local livestock production systems. This was done primarily by providing herders with animal health services and livestock feed, targeting those animals earmarked by the ranch for fattening. Acting sometimes as livestock holding facilities for regulating the market supply, fattening ranches were usually run either by the State or by parastatal companies, the majority of which are now defunct<sup>8</sup>. Fattening ranches are also found in coastal countries, but to a lesser extent. At the beginning of the 1970s, Ghana planned the commercial conversion of old ranches (Tadzewu, Branam), and the creation of a Ghana Livestock Company Limited. In Nigeria, the Mokwa fattening ranch intended to use the molasses produced by the sugar company in Jebba, as a source of livestock feed.

**Private ranches.** Less widespread than in East or Southern Africa, the oldest private ranches in West Africa are probably those established in Nigeria in 1914 by the

British company African Ranches Limited (ARL), which negotiated two concessions: one close to Kaduna (near the railroad), and the other in the north (Borno). The ambitious aim of ARL was to eventually manage a herd of 70,000 cattle on 200,000 ha. The British Government only granted the company a modest extension of their original holdings, criticising its limited investments on improving the local pastoral economy. As a result, the company terminated its activities, claiming a lack of sufficient land. In the Sahel, private ranching tends to be done by individuals or groups obtaining land concessions or through privatising water points, which gives them exclusive access to adjoining grazing resources. Even when occasional investments on the rangeland are prescribed by law, such processes are more a privatisation of common property resources than commercial ranching per se. In coastal countries, some private ranches have also been established, for instance in Côte d'Ivoire. Finally, ranching should not be confused with feedlot operations. In contrast to ranching (long fattening cycle, livestock mobility, vast rangelands), the feedlot method generally operates on a small scale and is based on a short fattening period, using feed troughs.

**"Herder" ranches.** Often linked to a policy of pastoral sedentarisation and modernisation, their creation is based on a dual premise. Pastoral resources have to be protected, on one hand, and livestock production safeguarded, on the other, in order to mitigate encroachment from agriculture into rangelands. This was the approach followed by Nigeria in the 1960s with the implementation of grazing reserves and, more recently, with the concept of "cattle colonies". Pastoral land management schemes (*zones pastorales aménagées*) under the Agrarian and Land Reform Law (RAF) in Burkina Faso provide another example of herder ranches. Such interventions aim at transforming "traditional" livestock production systems by providing a variety of services similar to commercial ranching practices: physical (fences) or virtual (markers) boundaries, pasture rotations, firebreaks, animal health, livestock feed. In return, herders undertake to cease their seasonal transhumance, use modern herding practices, reduce stocking rates according to the rangeland carrying capacity, and sell more animals. In addition, in countries increasingly experiencing violent confrontations between farmers and herders, herder ranches, such as those currently being established in Ghana's Afram Plains South District<sup>9</sup>, are seen as being a means to reduce conflicts. Sharing some similarities to group ranches in East Africa, herder ranches in West Africa are mostly used collectively, and rarely allocated to individual herders. Therefore, the case study described in the following section is particularly pertinent.

7. Ibécetène (42,000 ha), Fako (29,000 ha), Sayam (29,000 ha), Bathé (33,000 ha).

8. For instance, SERAS (Société d'Exploitation des Ressources Animales du Sénégal, which subsequently saw the creation of the Société de Développement de l'Élevage dans le Zone Sylvo-Pastorale-SODESP to manage the Doli Ranch), SONERA (Société Nigérienne d'Exploitation des Ressources Animales) and OMBEVI (Office Malien du Bétail et de la Viande).

9. <https://www.modernghana.com/news/900071/cattle-ranch-helping-to-bury-clashes-between-farmers-and-ful.html>

### 3. Herder ranches in the Sahel: what chance of success?

In the 1980s, in order to mitigate environmental degradation resulting from overstocking and to modernise mobile livestock production systems, a joint programme (Senegal-Germany) initiated the enclosure of 18,000 ha of rangelands in the northern region of Ferlo, around the pastoral borehole of Widou Thiengoli. Within the enclosure, individual families were each allocated a 500 ha fenced plot. Fanning out from the borehole, underground pipes supplied animal watering troughs. The experiment called for a formal contract with herders who would commit to retain their livestock within their plot, limit at all times the size of their herd following a moderate carrying capacity (10 to 14 hectares/TLU), and, therefore, destock regularly. In addition, herders would pay 10% of the initial costs (fencing, troughs, underground pipes), participate in the maintenance work (especially fences) and pay for livestock feed and water taxes. Over a 12-year period (1981-1992), with alternating good and bad rainy seasons, the Widou project was closely monitored: changes in the natural vegetation; performance of livestock; social interactions between herders living inside and outside the plots. In the end, the experiment had mixed results.

The constant mismatch between the fixed stocking rates and the fluctuating biomass in the fenced plots (too many animals in a bad year, not enough in a good year) led to an overall negative impact on the vegetation.

Fodder resources were not more abundant than those in the communal rangelands. In terms of quality, biomass build-up resulting from under-grazing in good years destabilised the resilience of the grasslands which could no longer adapt to constantly changing rainfall patterns. Natural pastures became increasingly impoverished, while drought-resistant grasses started to disappear. The animals were in a slightly better condition within the plots, but in a bad year, their resistance was much lower. During a drought, herds were forced to leave and trek to refuge areas. These animals lost weight rapidly, and frequent mortalities were reported. As time went by, the herders living within the plots cut discreet gates in the fences to be able to profit both from their “private” pastures as well as from the communal rangelands, but without allowing herders from “outside” to enter their plots, even during a crisis. As a consequence, tensions arose between herders, resulting in confrontations. Eventually, it was concluded that fencing the rangelands, boxing in livestock and allocating exclusive rights to individual households had proved counterproductive, given the interannual climate variations. In addition, ranches allocated to individuals will, sooner or later, result in the privatisation of pastoral resources, which remains incompatible with the flexibility required by pastoral land use. In Widou, this privatisation process benefited mostly rich and influential families who were able to jockey for primary positions, when fenced plots were being allocated.

### 4. Ranching in coastal countries for meat production: a realistic option?

In the Sahel, dividing and fencing the rangelands for implementing cattle ranches remains a difficult task<sup>10</sup>, since mobility is an absolute necessity. By contrast, would this not be an easier option further south, in the coastal countries? Rainfall is more abundant, rainy seasons last longer, and they are less subject to climatic variations. In addition, in those countries, there are many decision-makers advocating for a sedentarisation of livestock production through the creation, on a large scale, of modern ranches (mostly for cattle). These are seen as being more suitable for the intensification of livestock production. Furthermore, it is expected that most problems linked to livestock mobility and transhumant movements would, as a result, be resolved.

What would be the consequences of such a strategy in terms of the amount of land that would have to be set aside for ranching? The calculations made here are based on the following hypotheses. Firstly, livestock mobility is stopped at the national level, especially for transhumant herders coming from outside. Secondly, the final aim is, for the country, to be autonomous as regards national beef production (domestic self-sufficiency policy). Using the example of Côte d'Ivoire, based on a number of 200,000 head of cattle slaughtered annually, and an off-take rate of 10%, it would be necessary to raise 2 million head of cattle in ranches. With an average carrying capacity of 2 hectares/TLU on the rangeland (not excluding the need to

also provide livestock feed and additional fodder), 4 million hectares of land converted to ranches will be required – that is to say 40,000 km<sup>2</sup>. Côte d'Ivoire has a surface of around 325,000 km<sup>2</sup>. It would therefore be necessary to set aside more than one tenth of the national territory, to be devoted solely to ranches. Similar calculations can be made for other coastal countries. For instance, in Togo, based on 55,000 head of cattle slaughtered annually and an off-take rate between 10 to 15%, it would be necessary to raise 400,000 to 500,000 head of cattle on the ranches. Given a carrying capacity of 2 hectares/TLU, a minimum of 800,000 to 1 million hectares is required, which represents one fifth of the country's surface.

Taking a country as a whole, the surface area to convert into ranches would be substantial. In addition, setting aside large tracts of the nation's land for ranching will almost certainly impact negatively on food crop production, while local producers (farmers, herders) would have to be relocated to make land available for ranches. Such a scenario should give cause for reflection, although it may, quite rightly, be argued that this would be an extreme case. The real issue being addressed is not to replace entirely one livestock production system by another, but rather to consider ranching as a potential contribution to increasing national meat production, in combination with other production systems. Therefore, it is important to examine certain operational aspects of ranching.

<sup>10</sup> In the context of Widou Thiengoli, for instance, in order to allocate an equitable plot of rangeland to every pastoral household, it would be necessary to slice-up and fence-off into small units the whole Ferlo region. This would have caused numerous practical problems. In addition, mobility would no longer be possible, with each family herd confined to their own enclosure.

## 5. Breeding or fattening: procuring and marketing livestock

Cattle ranches, integrating all stages of the production cycle, are rare. Breeding calves is considered to be a complex process that falls within the skills of “traditional” herders who, in addition, bear all the risks, as mortality rates during the first year are usually high. Even the next steps (fattening, marketing) remain challenging. In order to minimise transport costs (on-the-hoof or by truck), the distance to the livestock supply pool is a critical factor. Ideally, herders would bring their animals to be sold at the ranch-gate. This is rarely the case, except during a drought. Procuring livestock on the markets is an option, as long as they are located within a limited distance from the ranch. Trucking is expensive, while trekking on-the-hoof remains risky (cattle thefts, weight loss).

When procuring livestock, the development stage (age) of the animals is crucial. The fattening process is most efficient with young calves, as they put on weight rapidly and steadily over a 2 to 3 years period. But during that time, the livestock assets are locked. By contrast, fattening older animals will allow quicker turnovers (with sales every few months), providing the ranch with regular income necessary to cover running costs. Although the ranching

economy is typically based on a long fattening cycle, ranches frequently experience difficulties in following their initial business plan which requires the procurement of an adequate number of animals, and of a right age. As a result, standardizing procurement procedures and securing a herd large enough to be profitable are chronic shortcomings.

When the fattening process is completed and animals are ready to be sold, urban markets are usually far away, while transport (trekking or trucking) remains costly and risky. Ranches tend to explore a whole range of different marketing strategies: trekking-on-the-hoof to markets (involving risks such as weight loss or cattle thefts); slaughtering on-site to sell the carcasses on the local market or for export; selling to feedlots (urban or rural) for final fattening (2-3 months); selling directly to butchers when quality animals are in short supply (March-July). However, one basic principle always applies: the marketing stage must provide both the ranch with financial profits and the consumers with meat at a price that suits their budget.

## 6. Interacting with herders

Apart from rare cases of private ranches operating in a vacuum (breeding-fattening-slaughtering-marketing), fattening ranches interact closely with herders, typically on a formal contractual basis. As part of these contracts, herders, with short-term loans from the ranch, agree to invest in improved animal husbandry practices (such as feed supplements during the dry season) for those animals earmarked. Once purchased by the ranch, herders are in a position to pay back their loans.

Agreeing on the purchase price to be paid by the ranch is frequently a cause for dispute. In order to avoid price distortions, ranches will try to align themselves with prices paid on the regular market, converted into a unit price per kilo. Except that selling an animal by the weight according to its weight is not a common practice for herders. In addition, since calves are rarely sold on markets, neither the ranch nor herders have a comparative basis for setting a price. Moreover, herders have difficulties to comprehend a pricing system which takes into consideration the potential productivity of the animal, as the price per kilo live weight may be higher for a young animal, compared to an older one.

In order to maximise the weight gain, dry season supplementary feeding is a requirement, using crop residues (cowpeas or groundnut toppings, either from crops grown on the ranch or bought in neighbouring villages), and livestock feed (cotton seed, cotton or groundnut cake). However, the daily ration per animal earmarked for the ranch is not always respected by herders. Rather, they tend to consider supplementary feeding as a means to limit weight loss within the whole herd, instead of a production strategy focusing on only a few animals. Livestock feed can be costly and remains highly dependent on the production

level and marketing strategies followed by agro-industrial companies (for instance, deciding to use by-products such as molasses for ethanol rather than as input for animal production). Herders find it difficult to cope with any supply disruption, and will hold the ranch responsible for animal losses suffered as a consequence.

Herders do not consider themselves only as breeders, essentially producing calves. A young animal leaving the herd is seen as an asset lost too soon. In addition, the focus placed by the ranch on young males ultimately leads to a restructuring of herd composition which is at odds with the inner logic of a typical pastoral herd. A high female ratio (85% and more) increases the milk production for family consumption, but the concurrent decline in number of males for immediate or future sale weakens the household economy.

The situation within herder ranches may also be difficult to manage. Boxed into specific and demarcated areas, herders are restricted in their capacity to be mobile, even though livestock mobility cannot be avoided in years of severe rainfall deficits and fodder shortages. Due to the lack of space available for creating herder ranches, these tend to be located in marginal areas where rangelands have a low productivity. Herder ranches often operate on the basis of a clear-cut separation between herding and farming communities, which hinders physical and economic integration between livestock and agriculture production systems. The risk of conflict remains, especially if farmers were expropriated from their lands, as part of the creation of the ranch. The choice of which herders will be given a place on a ranch is the result of a selection process that tends to benefit well-off and influential families, while poorer households are often excluded.



## 7. The ranch: infrastructure, equipment and human resources

Ranching requires substantial investment. **Rangelands have to be demarcated** (fences, pickets) to prevent movement of animals, in and out of the ranch. Within the ranch itself, separate plots need to be fenced off in order to allow for pasture rotation and regeneration, as well as for grouping livestock according to age and weight. A quarantine area is essential for new animals arriving from outside. This area may also be used for weighing, branding, castration, tick control, and testing for diseases. Buildings for livestock and for storing feed are sometimes required.

**High quality animal nutrition and health.** Assessing regularly the rangeland structure and dynamic within the ranch is crucial so as to optimise stocking rates according to seasons and ecosystems, while avoiding pasture degradation. In order to protect the rangelands, a network of firebreaks is essential. Pasture rotation and regeneration is often necessary, but requires a sufficient number of fenced plots, along with strict control over livestock movement. Interventions to improve rangeland productivity may include selective clearing, harvesting seed for regenerating grasslands and rainfed production of fodder crops, but this comes at a price. Even when stocking rates are moderate, providing livestock with supplementary feed and minerals is unavoidable. Moreover, monitoring animal health requires regular vaccination campaigns, deworming and parasite treatments.

**Easy access to water.** Given the limited water yield of wells and the large number of livestock to be watered, boreholes (usually equipped with pumping stations) remain the only viable option in the ranching context. Maintenance and depreciation costs need to be covered in order to avoid

breakdowns in the water supply system, with potentially dramatic consequences for the herd. Water infrastructures make up a substantial share of the running costs of a ranch. Therefore, reducing the number of boreholes to be drilled, by equipping these with a network of pipes and drinking troughs, thus servicing larger areas, is an attractive alternative. However, this strategy carries its own risks, as any breakdown in the infrastructure (borehole, pumping station or pipes) will have a much wider impact.

**Qualified personnel, infrastructure and equipment.** Herdsmen always play a key role in keeping the herd in good condition and in optimising weight gain. Running a ranch involves additional human resources: a general manager (who supervises the ranch); a deputy manager (in charge of buying and selling livestock); a foreman (to coordinate teams of herders and to purchase livestock feed and other inputs); ranch hands, mechanics, drivers, warehouse clerks. Buildings and equipment are indispensable: accommodation, offices, a garage, generators, radios, vehicles, motorbikes, machinery (for maintaining firebreaks, clearing and land management).

**Climatic and environmental factors.** In the Sahel, a ranch is no protection against weather-related extreme events. Interannual variations and rainfall deficits inevitably force the ranch to undertake emergency measures, including destocking<sup>11</sup>, which will affect its profits. In coastal countries, over the past 50 years, climate and environmental changes are also likely to have impacted on the rangeland productivity there. This underlines the necessity to update the norms relating to carrying capacities in these countries, as figures presently used as reference often date back to the 1960s.

## 8. The need for profitability

Operating as a livestock business, ranches have an obligation to generate a profit, which must be reflected in the added-value earned for each animal bought and sold, and in the net production costs per kilo of meat produced. Livestock productivity is measured in weight gains which can prove costly to attain. The creation of fattening ranches has frequently been justified simply by the fact that they operate as an integral part of the value chain. Consequently, if profitability is not achieved by the ranch, the very dynamic of livestock markets and meat trading would necessarily end up covering these losses. Nevertheless, final profitability is also based on livestock market price structures, which are directly influenced by the purchasing power of the consumer. Even where fattening ranches have operated as storage facilities in order to stabilise meat prices (by holding on to animals

and selling at the right time), they were never in a position, neither to control nor regulate the market<sup>12</sup>. In the end, it is the consumer who will establish a price ceiling, applicable equally to meat originating from a ranch or from "traditional" livestock systems.

Viable alternatives are limited. By producing high quality meat, ranches can target niche markets (such as supermarkets), but then, their contribution to national self-sufficiency ends up being insignificant. In the Sahelian context, exporting meat from ranches to coastal countries is another option, but remains a risky and costly enterprise. In addition, those countries lose a crucial element for final profitability at the end of the value chain, namely the 5th quarter.

11. During a drought, even Australian, Canadian or Argentinian ranches cannot avoid selling off large numbers of livestock.

12. In the early 1980s, the number of cattle earmarked by the SODESP in northern Senegal for supplying the Doli Ranch accounted for only 3% of the cattle population in the region.

## 9. Access to land and tenure issues

Ranching needs a lot of land, preferably all in one piece<sup>13</sup>. This is a basic requirement, difficult to meet, especially in densely populated countries or regions. As a result, some ranches were established in formerly gazetted forests or in marginal and degraded areas. In coastal countries, as well as in the Sahel, suitable tracts of land for ranching are increasingly scarce and space remains a crucial limiting factor. The same constraint applies to herder ranches. In Nigeria, the “cattle colonies” proposed by the Government in 2018 would operate as collective ranches of only 5,000 ha in size. Mostly to be created in gazetted grazing reserves, and privately purchased or leased land assets, the intensive production cattle ranches which form the basis of the National Livestock Transformation Plan (2019-2028), could be of a similar size. In addition, in the era of mobile phones and social media, civil society no longer hesitates to publicly oppose appropriation of pastoral land, whether for public or private ranches, oil exploration or mining<sup>14</sup>.

As a potential source of conflict, land titles are equally important. Given the size of the land holdings<sup>15</sup>, ranches in the major meat exporting countries referred to in section 1 do not necessarily have title to the land, but instead have been granted long term grazing leases by their respective governments<sup>16</sup>. In West Africa, ranches often have imprecise land titles, especially in the case of herder ranches. In Nigeria, herders living in certain grazing reserves only have a certificate of occupancy. In Widou Thiengoli (northern Senegal), although herders installed in the plots were never granted a formal land title, the mere existence of fences resulted in a quasi-privatisation of the rangelands, which persists to this day. In spite of the well-documented lack of success of the experiment, these fences are still in place, almost 40 years later. Similarly, land boundaries fenced and demarcated for state or parastatal ranches continue to be accepted. Cases where, following bankruptcy, the ranch has been returned to the land assets of the local communities are extremely rare.

## 10. Ranches: pro or contra?

As regards the need to increase meat supply, ranching may provide part of the solution, but is not necessarily THE solution. A single livestock production system, such as ranching, cannot prevail as the only efficient model to achieve this goal. In West Africa, the ranching formula is certainly possible in specific contexts. Nevertheless, it remains difficult to achieve on a large scale. Ranches (also those linked with intensive fattening schemes such as feedlots) can operate in conjunction with transhumant livestock systems. Notwithstanding, the contribution of these “traditional” systems continues to be crucial for supplying the value chain and supporting the local economy in the hosting areas.

Therefore, the real questions that need answering are more of an operational nature. It is certainly possible to produce more meat on a ranch, but where, at what price, and for which markets? The area of rangelands available, the stocking rates admissible and the annual offtake are the basic elements of a very complex equation. Ranching is expected to produce heavy animals, in terms of weight gain. In order to be competitive, operating costs must be minimised, economies of scale optimised and risks

properly managed. The final profitability will be determined by the market conditions and, therefore, by the consumers whose choices tend to be dictated by price, rather than by quality. A delicate balance also has to be found between the ranch’s profit requirement and its responsibility to provide support and assistance to the herders whose role remains fundamental within the value chain.

In the case of herder ranches, the argument for profitability tends to be eclipsed by other considerations, including conflict mitigation, the sedentarisation of herders, and the protection of grazing resources. As regards the situation of the herders themselves, the question of whether their livelihood system within the ranch is sustainable in the long run needs to be examined more thoroughly, particularly in view of the restrictions on the mobility of their livestock. In some situations, herder ranches can end up as pockets of poverty and, in time, as sources of conflicts.

All the more reasons to plan carefully before investing in ranches, whether public or private, as their success relies on their economic and financial performance, as well as on their social acceptability.

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13. In 1970, the feasibility study for a fattening ranch in northern Burkina Faso (Oudalan region) set the profitability threshold at 10,000 head of cattle requiring 80,000 ha, for a carrying capacity of 8 ha/TLU, an optimistic figure reflecting the abundance of grazing resources available at the time, before the 1973 drought. The project was abandoned in the face of the hostility of the local pastoral communities and their refusal to cede more than 20,000 ha for the ranch.

14. The Réseau National des Chambres d’Agriculture (RECA) and the Association pour la Redynamisation de l’Élevage au Niger (AREN) recently assessed that 54,000 ha have been fenced for private ranching in the pastoral zone; 200,000 ha have been ceded to a uranium company; and 2.5 million ha to a Chinese oil company in the eastern part of the country.

15. One of the world’s largest ranches, Anna Creek in Australia, covers an area of 340,000 km<sup>2</sup>, making it larger than Belgium.

16. In Western Canada, vast grazing areas have long been under the jurisdiction of the Federal Government, through grazing leases. Historically, in Argentina, the increased price of grazing leases forced sheep ranchers to migrate to the semi-arid pampas, thus freeing up land in the more humid pampas for cattle production and agricultural crops.

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