

How can mutually beneficial economic interactions between transhumant and sedentary populations be promoted in the Sahel?

In the Sahel, coexistence between sedentary populations and transhumant pastoralists is shaped by complex and interdependent interactions. These interactions can generate significant benefits (through trade, soil fertilization, and the valorization of herbaceous areas), but they also give rise to tensions, notably due to competition for access to water, crop damage, and reciprocal grievances. Such tensions may escalate into conflict and contribute to an environment conducive to the spread of armed movements. Action contre la Faim (ACF) and the University of Maroua, with support from the Agence française de développement (AFD), conducted a study aimed at quantifying these interactions, which are characterized by asymmetric costs and imbalanced exchanges. The objective was to assess whether the scale of these imbalances could help explain the emergence of conflict.

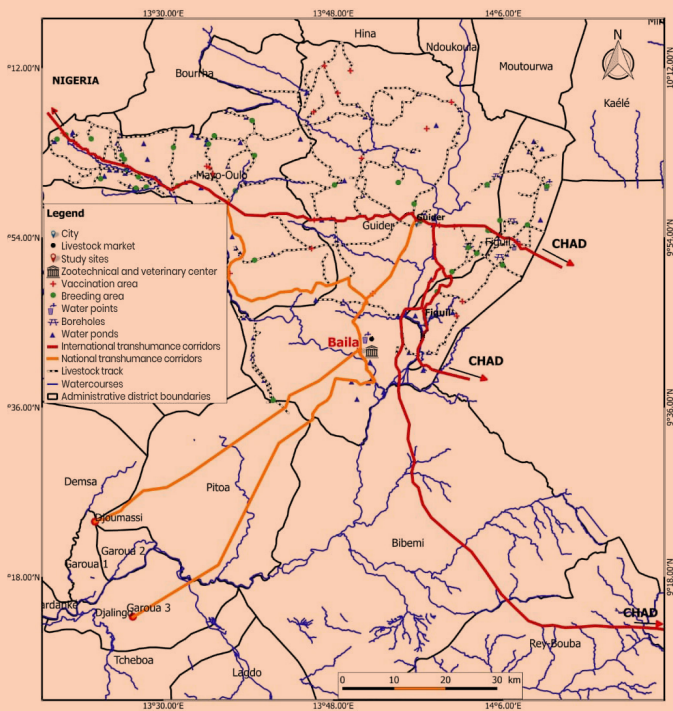
The study was carried out in three villages in northern Cameroon and is based on a survey of 124 households (60 transhumant herders and 64 sedentary farmers and livestock keepers).^[1] The diversity of ethnic groups, the agroecological context, and the seasonal economic dynamics observed make this sample representative of situations commonly encountered across the Sahel. The findings show that, despite sharing the same agropastoral space, villages follow differentiated trajectories shaped by demographic trends, the history of intercommunity relations, and specific rules governing access to resources. These differences call for tailored responses, although a set of common recommendations can be identified to help ease tensions.

[1] The sedentary populations considered here are primarily farmers who are often also livestock keepers, owning animals that may themselves engage in transhumance. Conversely, transhumant pastoralists may become more or less permanent residents. The survey therefore prioritized households characterized by permanent residence in the case of sedentary populations, and by seasonal presence in the case of transhumant households.

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**Map 1 – Spatial organization of mobility around Baïla
(Northern Cameroon)**



Source: authors.

Note: The map shows international and national transhumance corridors linking Cameroon, Chad, and Nigeria. Baïla occupies a strategic position at the intersection of pastoral routes connecting Chadian livestock-rearing areas with Cameroonian markets in Guidé, Pitoa, Garoua, and Djalingo.

Social interactions and community cohesion

Social dynamics vary markedly across villages, depending on the length of coexistence between ethnic groups and the degree of social embeddedness that has developed. While more than three-quarters of respondents report strong interpersonal ties—reflecting a relatively dense social fabric, particularly through shared places of worship—this conviviality remains limited in scope. In one village, 70% of transhumants report never having participated in structured social exchanges with local populations; in another, mixed marriages are almost nonexistent.

Interactions related to crop production remain limited. By contrast, exchanges linked to livestock production are more developed and help bridge social divides. These include mutual assistance (animal care, recovery of stolen livestock, material support) and informal forms of technical cooperation, such as genetic pooling through crossbreeding. In this regard, transhumants are widely perceived as itinerant experts in animal husbandry.

However, these support mechanisms may be uneven and tend to favor sedentary populations: individuals without livestock are less inclined to assist transhumants.

Intercommunity solidarity also extends beyond productive activities and is primarily based on situational complementarity, particularly in response to emergencies or family events.

Economic integration and the commodification of relations

Traditionally, Sahelian agropastoral systems rely on the complementarity of economic models. Transhumants derive most of their income from the sale of meat, milk, and by-products (hides, manure, butter), as well as from various pastoral and agricultural services (livestock herding, crossbreeding, and brokerage in livestock markets). Sedentary populations primarily market cereals and crop residues, and to a lesser extent milk, while supplementing their income through the rental of draft animals or equipment (in limited quantities) and wage labor.

Recent trends point to increasing structuring of economic interactions through market-based exchanges. Non-monetary mutual aid (labor exchange) and traditional reciprocal arrangements—such as implicit access to crop residues in exchange for manure—persist at low levels and are gradually eroding in favor of greater commodification of relations. This shift is reflected in the formalization of exchange rules through contracts (manure contracts) and the monetization of access to water, mutual rights, and norms governing relations between herders and farmers. The spread of manure and grazing contracts also reflects heightened concern for soil fertility and more regulated pasture management.

Milk, which has become the most dynamic driver of the intercommunity economy, was long primarily self-consumed but is now highly monetized. Sales by sedentary producers are declining in the face of competition from transhumant milk, which is often more abundant and sold at lower prices. Meat sales are also increasing, as are sales of crop residues (stalks, haulms, stubble) and cereals. These developments signal a transition toward more intensive livestock systems and growing integration into commercial circuits, in which agricultural by-products acquire market value.

At the same time, the herding of sedentary livestock by transhumants has expanded significantly, reflecting both recognition of transhumants' technical expertise and the emergence of remunerated pastoral services. Conversely, brokerage services in livestock markets on behalf of sedentary producers are stabilizing or declining, suggesting increasing autonomy among sedentary households and a stronger role for livestock within their economic strategies.

Overall, the study highlights increasing integration between agropastoral systems, with mutual dependencies on production factors becoming more visible as exchanges are monetized. It also shows that resource scarcity—driven by herd growth and demographic pressure—raises costs that can become sources of tension.

Material sources of tension

Analysis across the three villages highlights two main drivers of tension: competition for **productive resources** (water and pasture) and access to **services** (livestock markets and animal health infrastructure). Both are closely linked to the use of **pastoral infrastructure** (wells, ponds, livestock markets, corridor demarcation, etc.). While these facilities are designed to support coexistence and complementarity between transhumants and sedentary populations—and are essential for animal health, water access, and trade—they generate access costs that are perceived as high and increasing, particularly by mobile pastoralists, who depend more heavily on these services.

Competition for resources

Depending on the village, between 80% and 92% of respondents—particularly sedentary households—identify **access to water** as a major source of dispute. As water becomes scarcer and some watering points are progressively privatized, it has become a structural expense that weighs more heavily on transhumants. Their mobility creates functional dependence: depending on the areas crossed, they are required to pay more frequently, to different private or community actors, and often at higher prices.

More than three-quarters of respondents also cite **access to pasture** and non-compliance with transhumance corridors. For 53% to 90% of sedentary respondents, crop damage and trampling resulting from spatial proximity are the most visible and costly forms of conflict. These disputes heighten tensions rather than generating the expected synergies of coexistence. Conversely, 80% of transhumants report being victims of unjustified accusations, perceived as systematic stigmatization. Livestock theft and crop theft further exacerbate mutual mistrust. While insecurity of livestock ownership affects both groups, its consequences differ: sedentary households incur material losses, whereas transhumants also bear reputational costs and compensation payments.

Inequalities in access to services

Livestock markets, designed to stimulate economic exchanges, play a central role in pastoral economies. However, their management has become increasingly monetized (taxes, maintenance fees,

transport costs), resulting in institutionalized inequalities in access. Mobile pastoralists generally pay full fees, while sedentary households—better embedded locally—often benefit from social networks or community-based exemptions.

The survey also confirms a broader regional trend: animal health services, which could serve as a lever for cooperation, are primarily a source of inequality in terms of costs and access. Transhumants incur veterinary expenses two to three times higher than those of sedentary households. In addition to more frequent exposure to epidemic zones, their lack of administrative residence may limit access to subsidized services and expose them to repeated payments and non-harmonized pricing across areas. These cost disparities increase their vulnerability and lead to higher livestock losses than among sedentary households (ranging from +15% to +100%, depending on the village).

Overall, these disputes represent a substantial economic burden. For a single transhumance season, losses exceed CFAF 100,000 per household—nearly one-fifth of average pastoral income. On average, transhumant households incur losses exceeding CFAF 120,000, compared with CFAF 92,000 for sedentary households, making transhumants the most economically vulnerable group. These cumulative losses directly undermine food security, social stability, and the sustainability of agropastoral systems.

Policy recommendations to reduce tensions

The causes and effects of these disputes—particularly those linked to structural competition for productive resources (pasture and water access, agricultural damage)—entail **economic costs** that can escalate into conflict and violence. These pressures are compounded by identity-based and institutional tensions, fueled by **mutual mistrust** and **local governance** arrangements often perceived as biased. Addressing the fragility and degradation of material interactions—despite their potential to support sustainable development—requires action along two complementary lines: economic interventions and improvements in governance and social inclusion.

Economic interventions

The **economic roots** of tensions highlight the need for conflict-prevention strategies based on shared-benefit development. Existing arrangements, such as temporary agreements on pasture sharing or water access, demonstrate local actors' capacity to devise pragmatic solutions.

Further efforts could focus on **the coordinated development and securing of pastoral infrastructure**, including:

- Improving and securing water points, ponds, and boreholes to reduce access-related conflicts;
- Mapping, marking, and maintaining protected transhumance corridors to limit crop damage;
- Developing and modernizing livestock markets to facilitate exchanges and increase local revenues;
- Regulating the monetization of access to resources (ponds, pasture) to restore equity and prevent discriminatory practices.

Economic initiatives that enhance the value of pastoralism could also be strengthened by:

- Quantifying and promoting the contributions of pastoral systems (organic manure, employment, milk and meat trade, crop residues);
- Supporting economic diversification through processing of livestock products and valorization of by-products;
- Promoting agricultural advisory services to limit overgrazing and soil erosion and encourage forage production;
- Disseminating good practices for manure, grazing, sales, and input contracts.

Sociopolitical levers

Local governance emerges as an aggravating factor in all three villages. In one locality, 89% of sedentary respondents consider administrative authorities ineffective, while 58% of transhumants accuse them of favoritism. In another, mistrust is symmetrical: 88% of sedentary respondents view authorities as overly lenient toward pastoralists, and 88% of transhumants denounce bias in favor of sedentary populations. Despite these perceptions, customary mechanisms led by traditional authorities and local mediation bodies—considered effective by 70% of respondents—remain central. These mechanisms prioritize negotiation,

symbolic reparation, and agreed compensation to prevent escalation. **Strengthening inclusive local governance and participatory management arrangements**—through the establishment of mixed local committees for managing water, pasture, and corridors, and through endogenous conflict-prevention and resolution mechanisms—would therefore be appropriate.

More broadly, policymakers play a key role in guiding public investment, regulating and securing access rights to resources, and encouraging initiatives to intensify both livestock and crop production. **Integrating pastoralism into public policies and partnerships** would help reframe transhumance as an asset rather than a constraint. This requires formalizing recommendations within national policy frameworks (rural codes, land legislation) and promoting cooperation between local authorities, the state, and international partners.

Finally, **strengthening social inclusion and access to basic services for transhumants**—through schooling for children, participation in local governance bodies, equitable access to human and animal health services, and support for awareness-raising and intercultural initiatives—remains essential.

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