

## FARMER-HERDER CONFLICTS IN MALI

# Mali



➔ Livestock rearing constitutes 10.8% of Mali's GDP and is among the country's top three exports. *Photo: Brian McMorrow*

By Kelsey Jones-Casey and Anna Knox

### INTRODUCTION

Like other land-locked countries in Africa's Sahel region, Mali is experiencing population pressures, soil degradation, more intense and variable drought cycles, and shifts in agricultural practices. These factors have contributed to the expansion of land under cultivation and decreased availability of land for grazing animals.

As Malians adapt their livelihood practices to their changing circumstances, traditional rules facilitating cooperation between farmers and herders are becoming insufficient to manage increased competition over land and water. This brief explores the multiple interdependent phenomena that affect relationships between farmers and herders, and the nature of their ongoing conflicts over natural resources.



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Population growth and declining herder mobility have contributed to the increased area of land under cultivation; the increased concentration of people and animals on arable land; and to competition over arable land.



Eighty percent of Mali's population is engaged in agriculture, which constitutes 45% of the country's GDP. *Photo: CGIAR, Climate*

## FARMER-HERDER CONFLICTS IN THE FACE OF ENVIRONMENTAL DEGRADATION

The people and economy of Mali are dependent on agriculture, which includes both the cultivation of crops and livestock rearing. Eighty percent of the population is engaged in agriculture, which constitutes 45% of the country's GDP. Crop and pasture lands account for 64% of the country's area. Agriculture is dominated by the subsistence farming of millet, rice, sorghum, and corn and the rearing of cows, sheep, and goats. Livestock rearing constitutes 10.8% of GDP and is among the country's top three exports (after gold and cotton). The Sahara Desert covers nearly two-thirds of Mali, and 90% of the population resides in the more fertile southern zone below it.

Because pastoralism (i.e. the practice of herding) can fall into multiple categories, it is difficult to measure the percentage of the Malian pastoralist population. Nomadic stock rearing involves herders primarily in the north of the country who move frequently with their animals for grazing and watering. Pastoralists can also be

classified as sedentary, transhumant, or semi-transhumant. When sedentary, pastoralists will keep their animals with them in the rainy season, but possibly entrust them to other herders to be taken north during the dry season. Transhumant pastoralists migrate north in the rainy season and south in the dry season.

Some Malians are agro-pastoralists whose livelihoods combine farming and herding at varying ratios. Most farmers are small-scale subsistence farmers who cultivate crops primarily for their household or community's consumption; however, these patterns vary according to ethnicity and tradition, availability of resources, and the season. For example, herders of the Soninké ethnic group in a particular region only send their animals to migrate during droughts, rather than every dry season.

Historically, livelihoods have been tightly tied to ethnic identities (e.g. Fulani herders and Bambara farmers), but these distinctions are blurring as more Malians become agro-pastoralists. Risk brought on by land pressures and increasing climatic variability is leading to livelihood diversification, whereby farmers have begun raising animals and herders have taken up farming.

In the 1970s and 1980s, Mali experienced two periods of drought that decimated more than a third of livestock in Mali and contributed to widespread food shortages. Since the 1980s, drought cycles have become shorter and more frequent. Rainfall has also become less predictable, leading to flooding and making farmers more risk-adverse in their planting and harvests. Average temperatures in Mali have increased and are expected to further increase by between 1.2% and 3.6% before 2060. These changes are taking place not just in the northern regions of Mali near the Sahara, but in the fertile southern belt where the majority of the population lives.

The Malian government has recognized these variations as symptoms of climate change. In 2007, the Ministry of Equipment and Transport published their national strategy for adapting to climate change. Their strategy ranged from equipping boreholes or wells with solar or wind energy-fueled pumps, to developing crops that can be used as animal fodder and the promotion of livestock feed banks. The report mentions that continued degradation of water resources (including sedimentation, pollution, and waste) has led to "significant change

in [agricultural] production systems,” which in turn has led to land disputes between farmers and herders.

In response to these changing conditions, many Malian agriculturalists are resorting to urban migration in hopes of securing wage labor or other sources of income. Some pastoralists take up farming, remain for longer periods of time in fertile zones near water, or become completely sedentary. Farmers have begun raising livestock or increased the size of their herds. These livelihood changes, combined with population growth and declining herder mobility, have contributed to the increased area of land under cultivation, as well as the increased concentration of human and animals on arable land, and contributed to competition over arable land. Available arable land has become scarce, and the arable land that is available is less productive because average fallow periods in recent years have decreased from 10-15 years to one to two years, preventing the soil from fully recovering from intense cultivation.

In addition, the introduction of the cattle (or donkey) plough, bicycles, and the donkey cart have increased efficiencies in agricultural production. This has allowed families to intensify and expand their cultivation in response

to soil depletion and drought. As soil is depleted, farmers need to cultivate more land to meet their subsistence food needs. Land is less frequently laid fallow and is further depleted in a vicious cycle. These practices have also diminished grazing land. Where once fallow land transitioned to “bush land” after several years and was used for grazing, this land is now more-or-less continually cultivated.

Traditionally, farmers and herders have maintained mutually beneficial relationships -- trading or selling manure, crops, milk, and other goods. Herders' animals often graze on fields used for cultivation after the harvest, leaving dung that improves the soil. In the past, settled communities dug and maintained wells and welcomed the herders to use them. However, these relationships are increasingly becoming strained. Competition over land has caused conflicts between all types of land users, including between farmers and farmers, herders and herders, and especially between herders and farmers.

Most scholars agree that Mali is witnessing a growing number of conflicts over land use. According to S. Cissé (as cited in Pato Daniel Kaboré's dissertation *Conflicts over Land in the Niger River Delta of Mali*),

approximately 42% of land use conflicts are between herders and farmers. In most cases, these conflicts stem from disputed access to and control over land and water resources. These conflicts can be very violent, often ending in death. In the village of Karbaye in the Niger River Delta, a dispute between a “farmer” village and a “herder” village (livelihoods that fell along ethnic lines) over a pond used for household water consumption, livestock water

## STATISTIC

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Conflict over natural resources can be expected to increase in Mali as populations expand and rainfall and temperatures become more erratic.  
Photo: Peter Cassier, [www.theroadtothehorizon.org](http://www.theroadtothehorizon.org)

In decentralizing dispute resolution authority to local government leaders, the government has complicated and confused a process traditionally led by customary leaders.



consumption, and brick production led to violent conflict. Farmers from one village attacked herders from the other village when they came to the pond to water their livestock. More than 15 people were injured and at least three people were killed.

Conflicts also arise when herders violate post-harvest grazing rules, such as the traditional practice of *Sammandé*. Following the grain harvest, herders are granted two days to graze their cattle and other small animals on the millet and sorghum stalks. Traditionally, these days were scheduled immediately following the cutting of the stalks. However, because there are more people vying for grazing rights and farmers are increasingly worried that herders will ruin their fields, this has changed. Herders are often frustrated that chiefs do not set the *Sammandé* days earlier so that the millet stalks do not dry out, while farmers are frustrated because they believe that the herders bribe the chiefs to allow *Sammandé* too soon after the harvest.

Cases of farmer-herder conflict often include situations in which land under cultivation has expanded into traditional transhumant herder routes, or blocked access by cattle to water sources such as wells or riverbanks. In other cases, lowland areas that were once reserved for *burgoo* (a plant on which cattle graze) are being converted to large-scale or small-scale rice production.

The reduced availability of land both for cultivation and grazing is another source of conflict. Because there is less available land - and because land near water is viewed as a prime place for cultivation of both vegetables and staple crops - farmers often surround waterholes and wells with fields or garden plots. As a result, it is difficult for herders to access these water sources with their herds. Traditionally, herders made arrangements with local chiefs to use wells or to dig their own wells for watering their animals. Water was free to use throughout the year. Since the intense droughts, however, both resident and transhumant herders are charged for using village wells during the dry season, while during the rainy season animals can drink freely from waterholes.



Forums that promote dialogue and agreement among farmers and herders have the potential to increase transparency and diminish tensions. Photo: [www.ilri.org](http://www.ilri.org)

Other causes of farmer-herder conflict are livestock theft and damage to fields by animals, both of which are punishable by fine. Settled herders complain that migrating herders' animals infect theirs with disease, or compete with their animals for water. Conflicts generally intensify at the end of the rainy season before crops are harvested, especially during periods of droughts or low rainfall. To the extent that climatic variation leads to increasing frequency and longer periods of drought, Mali and its neighboring countries in the Sahel are likely to witness more extensive and intense conflicts over land, water, and food resources.

These conflicts have been especially intense in the Niger River Delta region. The region has traditionally supported a variety of livelihoods including fishing, subsistence agriculture, and pastoralism. In the rainy season (June to October) the river rises, supporting crop irrigation and water, and

supplementing wild water-grown fodder for grazing animals. However, droughts and insufficient rainfall have curtailed irrigation potential in the delta, spurring competition between herders and farmers over rights to water cattle versus rights to water crops. Increasing land under cultivation in the delta constricts livestock corridors and paths, including those used for accessing water. Therefore, when herders attempt to water their cattle, they often trample gardens or farm plots.

## CONFLICT MANAGEMENT

In 2001, the Pastoral Charter was passed. The Charter recognizes the rights of farmers to both move their animals and to have access to resources to maintain their livestock. The Charter also states that local authorities are responsible for resolving land use disputes. In practice, however, mechanisms to resolve conflict in Mali vary depending on local norms, the nature of the conflict, and the parties

### FACT

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involved. In a conflict between a farmer and herder, the parties will commonly attempt to agree on a settlement for the damage. If this approach fails, the parties may take the matter to customary authorities such as the chief and the village elders. The local council may get involved if the dispute cannot be resolved, or if the parties choose to go directly to local government instead of traditional authorities.

Decentralization reforms have put more power into the hands of local officials to resolve conflicts related to land and natural resources, and the incongruence between statutory and customary legal systems has made dispute resolution confusing. A case study in northwestern Mali (Sabrina Beeler, 2008) suggests that land-related conflict resolution may have been easier prior to decentralization reforms in 1990s when customary authorities had more responsibility in the conflict resolution process and dispute mediation was seen to be less subjected to bribery. Many local authorities are settled farmers themselves, or are seen as representing farmers (because of their ethnicity or otherwise) by herders who claim that they are biased towards farmers and give them preference.

Additionally, boundaries are being negotiated in the process of decentralization and villages are asserting control of their territories. As farmland expands, the space between villages once used for grazing is dwindling and herders find themselves with less and less productive land on which to graze their animals. While transhumant herders are generally not represented in local governments and do not pay taxes, many have strong patron-client relationships with local elites.

Local conventions and courts play a role in conflict management. Many villages in Mali have local conventions governing natural resources. These conventions are negotiated agreements that are often developed by chiefs and other

important village officials who decide on rules regarding grazing, growing, land access, etc. These agreements are often funded and coordinated by donors, but their effectiveness is questionable because they are not afforded legal recognition and, in some areas, the authority of customary leaders has waned. Courts play a small but growing role in dispute settlement. Most rural herders and farmers do not have access to courts, though disputes with greater financial consequences are increasingly being brought to court.

## LESSONS LEARNED

Conflict over natural resources can be expected to increase in Mali as populations expand and rainfall and temperatures become more erratic. However, while measures that slow the pace of these changes are important, they cannot overcome the immediate need to embrace options for adapting to the consequences of heightened climatic variability.

Forums that promote dialogue and agreement among farmers and herders about rules governing access and control over land and water resources have the potential to increase transparency and diminish tensions. In some cases, formalizing agreements and having those backed by trusted customary or government authorities may engender greater commitment and respect for the established rules. Herders should be actively sought out in such participatory processes to ensure that their needs and priorities are represented on par with those of farmers.

Clarifying the roles of government authorities - especially in regards to dispute resolution - could help prevent the intensification of conflicts. Likewise, strengthening the capacity of dispute resolution actors in reconciliation and mediation has the potential to improve citizens' trust in those authorities and also compliance

those authorities and also compliance with negotiated outcomes. The role of existing or historical authorities could be strengthened and expanded to take on coordination of livestock movement in and out of agricultural areas, uphold farmer-herder agreements, or protect transhumance corridors from expanding cultivation.

When it comes to conflicts over crop damages, techniques to measure the damage are being accepted by parties in conflict as a fair and just means of determining compensation by herders. Instead of relying on technical experts though, communities could be trained to do this measurement themselves and thereby shorten the resolution period. However, this only offers a solution to one type of farmer-herder conflict.

Soil and water conservation measures and other forms of conservation agriculture are also crucial to combating some of the main drivers of farmer-herder conflict in Mali: increasing aridity and soil degradation. Adopted widely, these techniques and technologies can alleviate land pressures by increasing productivity on still-arable land and bringing abandoned, infertile land back into production.

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