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## Farmer-Fulani pastoralist conflicts in Northern Ghana: are integrated landscape approaches the way forward?

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### ABSTRACT

Over the past 20 years, recurrent and violent conflicts between farmers and Fulani pastoralists have persisted in Northern Ghana. These conflicts mainly revolve around access to and utilisation of natural resources such as land and water. Conflicts of interest have led to the social marginalisation of the Fulani community, leading to their exclusion from formal landscape governance processes. This paper explores the prospects for better management of these conflicts and the potential for including Fulani pastoralists in landscape governance through the implementation of integrated landscape approaches. Based on a semi-systematic literature review and key informant interviews, we propose a categorisation of conflicts and potential causes and solutions. The experience of Burkina Faso in managing farmer-herder conflicts is presented to inform lessons for Ghana. We argue that adopting more inclusive landscape approaches, with a particular emphasis on key principles, could contribute to reconciling diverging interests between farming and herding communities and help mitigate conflicts. This requires that constraints such as the negative and pervasive perceptions towards the Fulani, the neglect of pastoral activity in broader development processes, and the lack of inclusion of Fulani pastoralists in multi-stakeholder platforms and decision-making need to be urgently addressed.

### KEYWORDS

Farmer-herder conflicts; Fulani pastoralist; inclusion; integrated landscape approaches; Northern Ghana

## 1. Introduction

The links between natural landscapes and the local communities living within them are complex because of the diversity of natural resources and the plurality of interests that guide their use (Mensah et al. 2016). Within multifunctional landscapes, numerous stakeholders with varied interests typically coexist, each seeking to derive benefit from natural resources, often to the detriment – whether explicitly or inadvertently – of the interests of other stakeholders. This often leads to conflicts of interest (Olaniyi 2015; Snorek et al. 2017). Aside from these direct causes, indirect causes related to population growth, urbanisation,

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and climate change may exacerbate such conflicts (Turner 2010; Mensah et al. 2016; Soeters et al. 2017; Alaanololuwa Ikhuoso et al. 2020). For this reason, there is a growing call to govern the interactions between different resource users through consultation and negotiated decision-making to minimise conflict and improve ecosystem functionality (Mensah et al. 2016; Ratner et al. 2017; Bukari 2017). However, this is not always the case, thus fostering conflict (Krätli 2010; AU 2010; Lund 2011; Bukari and Schareika 2015; Kuusaana and Noagah Bukari 2015). In many circumstances, claims to natural resources materialise through contestation if there is no negotiation platform and mediated cooperation between different parties (Bukari 2017).

Over the last two decades, landscapes in West Africa, including those in Northern Ghana, have experienced conflicts between sedentary farmers and transhumant pastoralists due to competing claims to natural resource use (Shettima and Tar Usman 2008; Nwangwu et al. 2020). Most of these conflicts occur along transhumance routes or close to villages and are caused by the intrusion of animals into agricultural fields or by grabbing land traditionally used for pastoralism for agricultural purposes (Bronkhorst 2012). Local farming communities tend to depict transhumant pastoralists as solely responsible for these conflicts, leading to their stigmatisation (Bukari 2017). In Northern Ghana, Fulani pastoralists represent a classic example and are highly stigmatised and considered a threat to the sustainability of natural landscapes because of the damage caused by their herds (Tonah 2006). This has led to the social marginalisation of pastoralist communities in the host villages and their exclusion from natural resource governance processes (AU 2010; Kuusaana and Noagah Bukari 2015; Bukari and Schareika 2015; Mensah et al. 2016).

Underlying the contested claims to resources, the conflicts between these groups testify to a rivalry between two competing production systems, namely agriculture and pastoralism (Olaniyi 2015). This is reinforced by the fact that development actors tend to consider pastoralism as a hindrance to development efforts, thus advocating for its modernisation (Basupi et al. 2017).

These farmer-herder conflicts occupy a prominent place and have become increasingly violent over the last 20 years (Nwangwu et al. 2020). This situation represents a hindrance to concerted landscape governance. Hence, appropriate conflict resolution and prevention mechanisms are needed to foster inclusive local development of the region or country.

Many authors have examined conflicts between farmers and pastoralists in Northern Ghana, addressing the causes and consequences. However, only a few scholars have reflected on how to resolve or manage these conflicts (Mensah et al. 2016). This paper addresses this gap by exploring the potential of integrated landscape approaches (Sayer et al. 2013; Reed et al. 2017; Kusters et al. 2020) to manage and prevent these conflicts. We argue that integrated landscape approaches (ILAs) have the potential to contribute to the management of conflicts between farmers and Fulani pastoralists. ILAs have emerged as integrated multi-stakeholder processes that respond to societal concerns about both environmental management and economic development and are based on ten principles (Table 1) (Sayer et al. 2013). They are generally seen as long-term processes aimed at bringing together landscape actors with different and sometimes conflicting interests in a multi-stakeholder platform to negotiate trade-offs and seek a balance between divergent objectives and the sustainable use of a common landscape (Görg 2007; Sayer et al. 2017).

The questions that arise and guide this literature review are: what are the direct and indirect causes of conflicts between sedentary farmers and transhumant pastoralists in

**Table 1.** Ten Principles for integrated landscape approaches.

Principle	Meaning
(1) Continual learning and adaptive management	Unpredictable dynamics (e.g., external shocks) are an opportunity for learning and adaptation.
(2) Common concern entry point	Solutions for problems at the landscape scale need to be built on a shared problem definition and negotiation based on trust.
(3) Multiple scales	Landscape governance requires awareness of causes and solutions at multiple scale levels.
(4) Multifunctionality	Landscapes offer multiple benefits for different stakeholders, which implies trade-offs because stakeholders have different needs and aspirations.
(5) Multiple stakeholders	A broad spectrum of stakeholders should be recognised and equitably involved in decision-making.
(6) Negotiated and transparent change logic	All stakeholders should broadly agree on the logic, legitimacy, and justification for the negotiated proposed changes and be aware of the risks. This implies free, prior, and informed consent.
(7) Clarification of rights and responsibilities	Actors' rights and responsibilities must be clear to all stakeholders, and a conflict resolution mechanism should be in place.
(8) Participatory and user-friendly monitoring	All stakeholders should be able to participate in monitoring progress and threats.
(9) Resilience	Maintaining resilience and avoiding perturbances leading to system change are essential for long-term benefits.
(10) Strengthened stakeholder capacity.	Stakeholders must be supported to acquire the skills and abilities to participate and negotiate effectively.

Source: Sayer et al. (2013).

Northern Ghana? What lessons can be drawn from the experience of Burkina Faso in managing farmer-herder conflicts? How can transhumant pastoralists be involved in integrated landscape approaches in light of the marginalisation and exclusion they face in Northern Ghana, and what are the prospects for the implementation of integrated landscape approaches in this respect?

In the next section, we outline the methodology of this study, after which we provide background on the conflicts between farmers and Fulani pastoralists. Next, we address some challenges and suggestions from the literature on how these challenges can be overcome. We then present the Burkinabe experience and extract the success factors from which Ghana could learn. Finally, we discuss the potential and challenges of ILAs to reconcile competing interests over natural resources and contribute to a reduction of conflicts.

## 2. Methodology

This study combines a semi-systematic literature review (Figure 2) with key informant interviews across two countries, Burkina Faso and Ghana.

### 2.1 Semi-systematic literature review

This study opted for a semi-systematic literature review, as opposed to a full-fledged systematic literature review which would require at least 12 months (Booth et al. 2012) and was beyond the scope of this study. This study shares with a systematic review that the search for and selection of literature was made in a systematic and transparent manner and, as such, is more rigorous than a conventional literature review. However, the amended version implies that several steps of a systematic literature review were omitted (i.e., prior publication of the protocol, independent application of the inclusion/exclusion criteria by two researchers, and evaluation of biases) or were replaced with a simpler procedure.

Regarding the latter, rather than undertaking a critical assessment to evaluate methodological rigour and identify ‘fatal flaws’ in the studies, being peer-reviewed was accepted as a proxy for sufficient scientific quality. For the grey literature, the credibility of the publishing websites was considered a quality indicator.

The reviewed literature encompasses peer-reviewed articles, doctoral theses and books published by authors working in the field of conflict, conservation and rural development. This allowed us to take stock of the current state of knowledge on the subject and define the scope of the research. It involved visits to bibliographic databases and institutional websites, as described below.

The Scopus and Web of Science databases and the first 20 pages of Google Scholar were used to identify relevant articles for the literature review on farmer–Fulani pastoralist conflicts in sub-Saharan Africa, in general, and Ghana, in particular, following the inclusion and exclusion criteria in [Table 2](#). The search terms used to identify evidence were derived from the review questions outlined in the introduction. This involved a trial-and-error process, resulting in the following search string that generated an appropriate and relevant collection of evidence (in terms of balancing breadth and specificity) in both the SCOPUS and Web of Science database: ‘Conflict’ AND (‘Pastoralism’ OR ‘Transhumance’) in the title, abstract and keywords of all articles, books and book chapters from 2000 to 2020 to identify the most recent scientific publications on the subject. Articles on farmer–pastoralist conflicts outside Ghana were also included, provided they involved Fulani herders. The map in [Figure 1](#) shows the distribution of the Fulani<sup>1</sup> people over Western and Sahelian Africa.

Additionally, we used search terms specific to this study, such as ‘landscape approach and conflict resolution’, ‘Farmer–herder conflicts in Ghana’, ‘Parenté à plaisanterie’, and ‘Pastoralisme au Burkina’, ensuring to respect the inclusion criteria to the extent possible. In total, this yielded 883 publications. In addition, 58 articles were obtained from additional sources (colleagues from the University of Amsterdam, the institutional websites mentioned above, and Google Scholar). After removing duplicates, 828 documents were screened for alignment with the inclusion and exclusion criteria in [Table 2](#).

The first 20 pages of Google Scholar and the websites of the Center for International Forestry Research (CIFOR), Forestry Commission of Ghana, Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), and the International Union for the Conservation of Nature (IUCN) were then explored to find additional relevant grey literature. This yielded six additional references deemed relevant to our study, mainly policy documents from the United Nations organisations (Le Meur et al. 2006; FAO 2012; 2017; UNOWAS 2018), the African Union (AU 2010), and the Burkina Faso government (MRA 2010). The PRISMA flow diagram ([Figure 1](#)) visually summarises the search and screening process and the results.

## **2.2 Key informant interviews in Burkina Faso and Ghana**

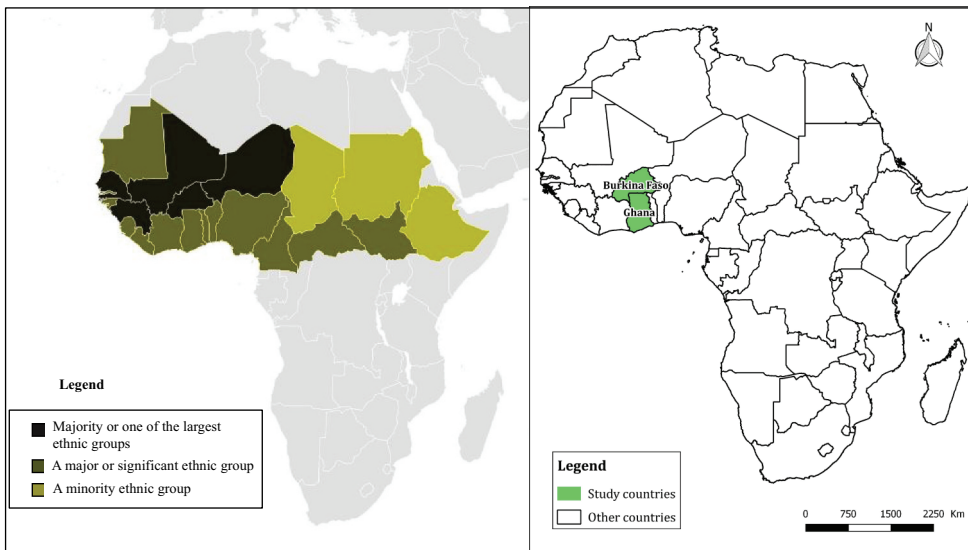
In order to learn lessons from the experience of Burkina Faso in managing farmer–herder conflicts, compare the Burkinabe and Ghanaian contexts, and triangulate the findings from the literature review, nine key informant interviews were held with resource persons from a research institute, a university, government institutions in charge of pastoralism issues and an NGO. Seven of these interviews were carried out in Burkina Faso, and two were online with Ghanaians. The interview guide contained questions about the state and evolution of

**Table 2.** Inclusion and exclusion criteria.

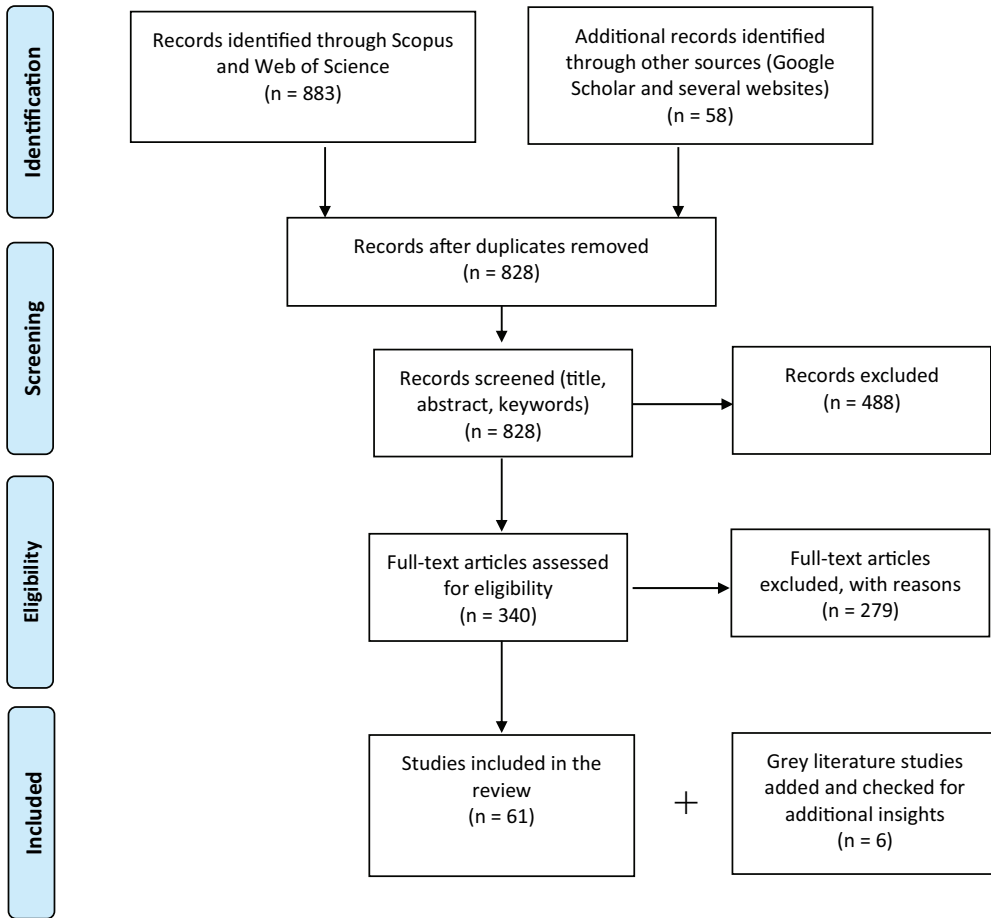
Inclusion criteria	Exclusion criteria
<i>From Scopus and Web of Science:</i>	
Peer-reviewed articles	Non-peer-reviewed articles
Publications related to the research field (environment, conservation, agriculture/livestock, local development)	Publications not related to the research topic
Papers focused on Fulani pastoralists in sub-Saharan Africa	Papers with a focus on Fulani outside the pastoralist sector or sub-Saharan Africa
<i>From Google Scholar and other sources:</i>	
Studies with a focus on Ghana or landscape approaches, including grey literature	Studies on other topics and countries
<i>All sources:</i>	
Articles in English or French	Non-English and non-French articles
Published between 2000 and 2020	Published before 2000

farmer-herder conflicts, their main causes, the strategies and mechanisms put in place by the state to manage or prevent these conflicts, and the social factors that promote cohesion and peace between different communities, particularly between farmers and herders.

The interviews in Burkina Faso were conducted between July and November 2020 in Ouagadougou, Burkina Faso. When we sought to clarify information on a particular aspect addressed in the literature, we made an appointment with the respective resource persons using purposive sampling. Thus, we interviewed two researchers from the Department of Sociology of the Université Ouaga I (Researchers 1 and 2); a researcher from the Institute of the Environment and Agricultural Research<sup>2</sup> (Researcher 3); and two officials each from the Service in charge of Transhumance and Pastoral Conflicts (government officers 1 and 2) and the Department of Management of Food Crises and Vulnerability in Livestock; both part of the Ministry of Animal and Fisheries Resources<sup>3</sup> (government officers 3 and 4). In addition, the first author conducted a scoping study in Ghana in November 2019, during



**Figure 1.** Distribution of Fulani people in Africa and study countries. Source: Adapted from [https://commons.wikimedia.org/w/index.php?title=File:A\\_distribution\\_map\\_of\\_Fula\\_people\\_in\\_Africa.jpg&ol did=428178483](https://commons.wikimedia.org/w/index.php?title=File:A_distribution_map_of_Fula_people_in_Africa.jpg&ol did=428178483)



**Figure 2.** Method of literature research: PRISMA Flow Diagram. Source: Adapted from Moher et al. (2009)

which several resource persons were interviewed. Those cited in this paper are an NGO employee and a Fulani independent consultant living in Northern Ghana. Due to the pandemic, follow-up on the interviews in Ghana was not possible until the completion of this paper.

### 3. Characterisation of the evidence base

The 67 articles reviewed consist of 46 case studies mentioning Fulani or synonyms (Fula, Fulbe, Peul) (69%) and 21 key papers purposively included for shedding light on landscape approaches and natural resource conservation (31%). Table 3 provides a thematic overview of the studies, revealing seven main themes, overwhelmingly focusing on the relationship between farmers and herders and sources of conflict (59% of the case studies). Despite this focus, only two case studies (4%) identified possible solutions and recommendations that could help manage and prevent farmer-herder conflicts (Ofuoku and Isife 2010; Ratner et al. 2017). This is a knowledge gap to which the present study aims to contribute.

**Table 3.** Overview of topics addressed in the reviewed studies.

Topic studied	Number of references	Percentage	References
Relationship between farmers and Fulani herders and sources of conflict	27	59	Armah et al. (2014); Benjaminsen and Ba (2009); Bukari et al. (2018); Bukari and Schareika (2015); Bukari (2017); Bukari et al. (2018); Dary et al. (2017); Davidheiser and Luna (2008); de Vries (2020); Gaye (2017); Hagberg (2001); Kuusaana and Noagah Bukari (2015); Le Meur et al. (2006)*; Maiangwa (2017); Mbih (2020); Moritz (2006); Moritz (2010); Nwangwu et al. (2020); Olaniyan et al. (2015); Olaniyi (2015); Oyama (2014); Snorek et al. (2017); Soeters et al. (2017); Tonah (2003); Tonah (2006); Turner (2004); Yembilah and Grant (2014)
Governance and public policies related to pastoralism	10	22	Bassett (2009); Bonnet (2013); FAO (2012)*; Ima-Ouoba (2018); Kräfft (2010); Mensah et al. (2016); Omotayo (2002); Omotayo (2003); Thébaud and Batterbury (2001); UNOWAS (2018)*
Livelihoods, climate change and natural resource conservation	4	9	Alaanuloluwa Ikhoso et al. (2020); Hellendorff (2012); Kiema et al. (2014); Turner (2010)
Proposing solutions to conflicts	2	4	Ofuoku and Isife (2010); Ratner et al. (2017)
Joke relationship	3	6	Diallo (2006); Wegru (2000); Zoungrana (2016)
<i>Sub-total case studies</i>	<b>46</b>	<b>100</b>	
Landscape approaches/landscape governance	13	62	Görg (2007); Kusters et al. (2018); Kusters et al. (2020); Mbow et al. (2015); Opdam et al. (2016); Reed et al. (2015); Reed et al. (2017); Reed et al. (2020) Ros-Tonen et al. (2018); Sayer et al. (2013); Sayer et al. (2015); Sayer et al. (2017); Van Oosten (2013)
Pastoralism and natural resource conservation	8	38	AU (2010)*; FAO (2017)*; Mahama and Longi (2015); MRA (2010)*; Nyong et al. (2006); Shettima and Tar Usman (2008); Tschamtké et al. (2012); Toutain et al. (2004)
<i>Sub-total general studies</i>	<b>21</b>	<b>100</b>	
<b>TOTAL</b>	<b>67</b>	<b>100</b>	

\* = Grey literature.



All case studies focused on sub-Saharan Africa and made reference to Fulani or one of the synonyms used (Fula, Fulbe, Peul) (which were inclusion criteria)—either on individual countries (70%) or regions (30%) (Table 4). With 30% of all cases, Ghana received the most attention.

## 4. Interactions between pastoralists and farmer communities in Northern Ghana

### 4.1 From symbiotic cohabitation to social fracture

Transhumant pastoralists and sedentary farmer communities in West Africa have long coexisted in historical relationships characterised by a mixture of cooperation and conflict. These relations have become tense due to increased competition for land and resources (Kuusaana and Noagah Bukari 2015; Mensah et al. 2016; Dary et al. 2017; Bukari 2017; Nwangwu et al. 2020). In the past, social relations between different communities sharing the same landscape were governed by the specialisation of each community in a given activity, allowing each social group to identify itself or the other through a specific occupation (Hellendorff 2012). In this sense, the nomadic Fulani of Africa are most typically characterised as pastoralists with little engagement in sedentary agriculture (Gaye 2017; Nwangwu et al. 2020). Specifically, herding and farming are two occupations closely linked to ethnicity in most Sahelian communities (Turner 2004; Hellendorff 2012). In Ghana, particularly in the northern region, pastoralism is essentially practised by the Fulani (Tonah 2006).

The respective forms of specialisation were an advantage in the sense that the various actors in the same landscape cohabited symbiotically. This is the case of the Yoruba farmers of Southeast Nigeria and the Fulani herders who, despite occasional conflicts, complemented each other in the 1960s to improve their livelihoods (Olaniyi 2015). For example, the Fulani traded cheese and milk, while the Yoruba farmers used the manure from their cattle to enrich their fields. In addition, some Yorubas entrusted the Fulani with the care of their livestock. This form of collaboration was also experienced in Burkina Faso between the Mossi farmers and Fulani pastoralists (Moritz 2010) and in Northern Ghana, where the Fulani settled at the beginning of the 20<sup>th</sup> century (Kuusaana and Noagah Bukari 2015; Mensah et al. 2016). The Fulani had established relationships of mutual social assistance and friendship with local communities that they

**Table 4.** Geographical areas targeted by the case studies.

Targeted geographical area	Number of studies	Percentage
Sub-Saharan Africa	3	6.5%
West Africa	6	13%
Sahel	5	11%
Central African Republic	1	2.1%
Cameroon	1	2.1%
Niger	2	4.3%
Burkina Faso	5	11%
Ghana	14	30.5%
Nigeria	7	15.2%
Mali	1	2.1%
Côte d'Ivoire	1	2.1%
<b>Total</b>	<b>46</b>	<b>100%</b>

assisted in carrying out rural activities, herding, etc. (Kuusaana and Noagah Bukari 2015; Mensah et al. 2016; Bukari 2017). There were three main reasons, economic and ecological, why the Fulani migrated from countries such as Burkina Faso to Ghana: the development of the livestock trade, agricultural development, and the droughts in the Sahel in the 1970s and 1980s, forcing pastoralists and their herds to migrate southwards to lands richer in pasture and water resources (Bukari and Schareika 2015; UNOWAS 2018). Since they migrated to Ghana, more than 14,000 Fulanis have settled permanently there (Bukari and Schareika 2015).

However, over time several constraints and sources of disagreement, notably disputes over the use of land and water, the destruction of crops by livestock, ethnic tensions, and the absence of institutions responsible for conflict management, have exacerbated frictions between farmers and herders (Nyong et al. 2006; Kuusaana and Noagah Bukari 2015). These factors have led to the Fulani in Northern Ghana generally inhabiting the outskirts of villages, thus keeping a certain distance from settled communities with whom relations have become fragile (Tonah 2006). These weak social and cultural interactions could feed the tensions and stereotypes that already existed between sedentary farmer communities and pastoralists, leading each of the two communities to consider the other as different and with mistrust (Bukari and Schareika 2015). Moreover, farmers who do not own livestock are often hostile to the presence of pastoralists (Tonah 2006). All these factors have increased the risk of conflict, stigmatisation, and exclusion. Generally, in Africa, and particularly in Ghana, nomadic pastoralists are victims of social, political and economic marginalisation and are inadequately considered in national and regional development policies (AU 2010; Bukari and Schareika 2015).

#### **4.2 Types of conflicts between farmers and herders**

Based on the literature review, we identified several types of conflicts that characterise the relations between sedentary farmers and transhumant herders. Table 5 integrates two classifications of herder-farmer conflicts according to the nature of the problem in question (Olaniyi 2015; Scheidel et al. 2020) and the impact caused (Bukari 2017). The table shows that economic and social conflicts have received the most attention in the literature. Environmental conflicts are much less addressed, most likely because a factor such as, for instance, climate change is an underlying rather than a direct cause of conflict, leading to scarcity of vital resources such as water, arable land and pasture (Scheidel et al. 2020).

#### **4.3 Underlying causes of conflicts between pastoralists and farmers**

The relationship between sedentary farmers and Fulani pastoralists is strongly characterised by rivalries and conflicts over the use of the natural resources they share (Soeters et al. 2017). These conflicts are complex due to the diversity of their origins and the actors involved (Kuusaana and Noagah Bukari 2015; Mensah et al. 2016). The previous section and Table 5 showed different types of conflicts and associated impacts. This section elaborates on the underlying causes: climate change, urbanisation and population growth, and cultural identity issues (Table 6).

**Table 5.** Types of conflict.

Nature of conflict <sup>a</sup>	Associated impacts <sup>b</sup>	Description	References according to conflict nature
<b>Economic conflicts</b> Conflicts that undermine the production systems that constitute the livelihood sources of the parties involved and the basis for economic development in rural areas (Olaniyi 2015).	Disagreement over compensation payment	These are non-violent conflicts resulting from disagreements between farmers and breeders over compensation for crop damage to livestock. Disagreement occurs when the owner of the animals responsible for the damage refuses to pay the amount required for compensation, either because it is considered too high in relation to the damage caused or because of unwillingness to pay. In this case, the chiefs and/or community leaders intervene to settle these unresolved conflicts (Bukari 2017).	Bukari (2017); Benjaminsen and Ba (2009); Bukari et al. (2018); Bukari et al. (2018); Hagberg (2001); Kuusaana and Noagah Bukari (2015); Le Meur et al. (2006); Mbih (2020); Moritz (2006), Moritz (2010); Nwangwu et al. (2020); Ofuoku and Isife (2010); Olaniyan et al. (2015); Olaniyi (2015); Oyama (2014); Soeters et al. (2017); Tonah (2003), Tonah (2006); Turner (2004); Yembiilah and Grant (2014)
	Individual farmer-herder conflicts over crop damage	This type involves personal quarrels between a single farmer and a single herder, either based on animosity or conflicts over the destruction of crops or the theft of animals entrusted to the herder. If they are not quickly resolved, they can escalate into group/mass conflicts involving the entire community of farmers against the herders (Bukari 2017).	
<b>Social conflicts</b> This type of conflict occurs through aggression and murder on the part of the protagonists of the conflict, but also through rape and acts of armed banditry (Olaniyi 2015).	Reprisal attacks	These are reprisal attacks perpetrated by one of the parties involved (farmers and breeders) in order to seek justice or revenge. This may involve farmers attacking and killing livestock, destroying their crops, or Fulani herders attacking farmers when their livestock are killed (Bukari 2017).	Bukari (2017); Benjaminsen and Ba (2009); Bukari and Danyi Kuusaana (2018); Bukari et al. (2018); Hagberg (2001); Kuusaana and Noagah Bukari (2015); Le Meur et al. (2006); Mbih (2020); Moritz (2006), Moritz (2010); Nwangwu et al. (2020); Ofuoku and Isife (2010); Olaniyan et al. (2015); Olaniyi (2015); Oyama (2014); Soeters et al. (2017); Tonah (2003), Tonah (2006); Turner (2004); Yembiilah and Grant (2014)
	Group or community conflicts	These conflicts involve Fulani herders and sedentary farmers (Bukari 2017). These are large-scale conflicts manifested in the massive ransacking of villages and the destruction of pastoral settlements and market infrastructure (Olaniyi 2015).	
	Violent confrontations	These conflicts result from escalating latent tensions that have worsened over time. In this type of conflict, firearms and knives are commonly used, resulting in loss of life and serious injury. The State, through the police, is obliged to intervene to stop the violence (Bukari 2017).	

*(Continued)*

**Table 5.** (Continued).

Nature of conflict <sup>a</sup>	Associated impacts <sup>b</sup>	Description	References according to conflict nature
<b>Environmental conflicts</b> These conflicts are due to economic activities linked to the irrational exploitation of natural resources and poor waste management. They generally involve two types of actors: those who defend the environment and those who abuse it to the point of creating social and ecological damage (Scheidel et al. 2020).	State-herder/ farmer conflicts	These are conflicts between the State and the pastoralists or farmers. These conflicts are often due to the encroachment of farmlands on protected areas or the degradation of forest reserves by livestock. In such cases, the State uses its authority to ensure that the law is respected (Bukari 2017).	Bukari (2017); Scheidel et al. (2020); Toutain et al. (2004)

<sup>a</sup>Based on Olaniyi (2015) and Scheidel et al. (2020). <sup>b</sup> Based on Bukari (2017).

#### 4.3.1 Climate change

Climate change and variability increase pressure on natural resources (notably water) (Le Meur et al. 2006). This likely causes or intensifies social conflicts and tensions due to increasing scarcity (Turner 2010; Owuor et al. 2011; Ayana et al. 2016). Because resource users have different needs and adaptive capacities, this leads to disputes across the landscape (Snorek et al. 2017). Conflicts between farmers and pastoralists arise from competition for access to natural resources, such as land and water, that are fundamental for their survival and well-being (Olaniyi 2015).

#### 4.3.2 Population growth and urbanisation

High population growth and growing urbanisation require increased agricultural production and economic development. This creates pressure on land and other natural resources, which in turn results in the expansion of agriculture and settlements in grazing areas and transhumance corridors (Bassett 2009; Kuusaana and Noagah Bukari 2015; Mensah et al. 2016; Nwangwu et al. 2020). These factors lead to changes in pastoral areas and make pastoralism increasingly difficult. This subsequently increases both the frequency and intensity of the contestations and conflicts between farmers and herders over vital natural resources such as water, pasture and fertile land, which are essential for both pastoralism and agriculture (Toutain et al. 2004; AU 2010; Oyama 2014; Kuusaana and Noagah Bukari 2015; Olaniyi 2015; Gaye 2017; Soeters et al. 2017; Nwangwu et al. 2020). Land conflicts have also become recurrent because expanding agro-businesses and urbanisation have turned land into a commodity for trading and speculation (Kuusaana and Bukari Kuusaana

**Table 6.** Underlying causes of conflict addressed in the reviewed studies.

Factor	References
Climate change	Bukari (2017); Le Meur et al. (2006); Snorek et al. (2017); Olaniyi (2015); Olaniyan et al. (2015); Turner (2010)
Urbanisation and population growth	AU (2010); Bassett (2009); Kuusaana and Noagah Bukari (2015); Mensah et al. (2016); Nwangwu et al. (2020); Oyama (2014); Toutain et al. (2004)
Cultural identity issues	AU (2010); Bukari and Schareika (2015); Hagberg (2001); Krätli (2010); Kuusaana and Noagah Bukari (2015); Tonah (2003)

and Noagah Bukari 2015; Gaye 2017; Nwangwu et al. 2020). This situation reflects a broader tendency in sub-Saharan Africa of growing competition between competing land uses, such as agriculture, grazing land, housing, and biodiversity conservation, and is further aggravated by processes of land grabbing and privatisation of communal lands (e.g. Bassett 2009; Basupi et al. 2017). This poses a challenge to the development of pastoral activity in Northern Ghana if no space is assigned to livestock grazing in development planning.

#### **4.3.3 Perception and cultural identities**

Ethnicity and cultural identity play a significant role in the conflicts between farmers and herders in Ghana (Bukari and Schareika 2015). Nomadic pastoralism is generally conceived as a traditional way of life and an essential part of Fulani cultural identity (Krätli 2010; AU 2010). Indeed, the Fulani differ in terms of sociocultural and political organisation, economically, and in the use of space for their livelihood (Hagberg 2001). In turn, local communities consider them as foreigners, as not being Ghanaian citizens, and express hostility to them (Tonah 2003; Bukari and Schareika 2015; Kuusaana and Noagah Bukari 2015). As such, they have limited or no rights to access natural resources, as is generally the case with foreigners in most countries (Bukari and Schareika 2015; Kuusaana and Noagah Bukari 2015). Across sub-Saharan Africa, citizenship and social belonging are important factors determining land rights and access to landscape resources (Lund 2011).

### **5. Experience of Burkina Faso in the management of farmer-herder conflicts**

This section presents the results of the interviews with Burkinabe key informants to explore whether lessons can be learned from a neighbouring country where similar farmer-herder conflicts occur. Before doing so, we first present a brief review of the causes of farmer-herder conflicts in Burkina Faso.

#### **5.1 Conflicts causes**

In common with Ghana and many other West African countries, and despite the existing policies and measures to manage them, Burkina Faso still faces conflicts between farmers and pastoralists (Kiema et al. 2014). The interviews with researchers and officials revealed several causes similar to those in Ghana. These include the destruction of crops by animals; the lack of arable land due to urbanisation, expanding agribusiness and a growing population; the obstruction of transhumance tracks and grazing areas by agricultural fields and gold panning; and the demand for spaces initially dedicated to grazing as a consequence of increasing scarcity of agricultural land. To address these constraints to the development of the agricultural and pastoral sectors and the sustainability of natural resources, the Burkinabe government has implemented several prevention and conflict management measures. These and the social factors that contribute to the peaceful resolution and prevention of conflicts between farmers and herders are addressed in the next section.

## 5.2 Success factors in conflict management

Several factors have enabled Burkina Faso to manage conflicts between farmers and herders. The most important factors, according to interviews with four government officers, are addressed in the following subsections.

### 5.2.1 Institutional, strategic, and legislative measures

Burkina Faso included the livestock and pastoralism sector in the country's development plans and established a formal Ministry of Animal Resources (Ministère des Ressources Animales) in 1997<sup>4</sup> with branches throughout the country (FAO 2012). To work towards better governance of livestock activities in the country, the government created a department in charge of transhumance and conflicts. This department prioritises the management and prevention of farmer-herder conflicts. Also, a national policy for the sustainable development of livestock in Burkina Faso (*Politique Nationale de Développement durable de l'Élevage au Burkina Faso (2010–2025)*) is being implemented, making it possible to operationalise actions that aim, among other things, to strengthen dialogue and joint decision-making between the various stakeholders in the livestock sector and other natural resource users (MRA 2010). To this end, multi-stakeholder platforms and consultation frameworks at national, regional, provincial, and communal levels allow stakeholders to identify their common problems and discuss measures to resolve disputes. Such platforms include the national transhumance committee (CONAT) and the provincial and communal consultation frameworks.<sup>5</sup> They form an incentive to find solutions to common problems through consultation and negotiation, in line with Principle 2 for integrated landscape approaches (Sayer et al. 2013; see Table 1). This principle supports the search for a *common concern entry point*, which is a primary condition for implementing landscape approaches. As we will further discuss in the next section, the effective functioning of such consultation frameworks could give rise to a *negotiated and transparent change logic* (Principle 6) (Sayer et al. 2013).

A programme for the development, protection and enhancement of pastoral spaces and facilities has been formulated and implemented by the ministry through its General Directorate of Pastoral Spaces and Arrangements in concert with stakeholders in the field of pastoralism (FAO 2012). Moreover, the Ministry of Animal and Fisheries Resources created an early warning system to inform pastoralists and the actors of the ministry about areas at risk of conflict (Interview with government officer 3 September 2020). Also, several legislative texts, such as the Law on the Orientation of Pastoralism in Burkina Faso<sup>6</sup> and the decree on the creation, attributions, composition and functioning of the National Committee of Transhumance,<sup>7</sup> have been adopted to organise and orient the pastoral sector.

### 5.2.2 Local institutions to settle conflicts between farmers and herders

At the village and department levels, government bodies – the Village and Departmental Conciliation Committees<sup>8</sup>—have been set up to deal specifically with issues relating to farmer-herder conflicts. These committees are composed of local community resource persons and authorities, the technical services in charge of agriculture and livestock, and any other actor deemed essential given the nature of the conflict. These committees are participatory and inclusive and effectively manage land-use conflicts (Interview

government officer 1 July 2020). Moreover, they are able to avoid conflicts and settle many of them amicably. Such a legal and legitimate conflict resolution mechanism is in line with Principle 7 for integrated landscape approaches on the *clarification of rights and responsibilities* (Sayer et al. 2013).

### **5.2.3 Capacity building for farmers and breeders**

Capacity building is essential in the action plans and projects of the Ministry of Animal and Fisheries Resources (Interviews with government officers 1 and 2 July 2020) and those of the NGOs involved in this sector. The themes addressed in training and awareness-raising aim to strengthen sustainable agropastoral production and capacity building for farmers and pastoralists and to contribute to strengthening social cohesion – an essential step towards conflict resolution and prevention (Ofuoku and Isife 2010). Efforts in this regard align with Principles 1 and 10 for integrated landscape approaches, which respectively advocate *continuous learning* and improvement of the ability to judge and react to a situation as a basis for *collaborative and adaptive management* of multifunctional landscapes (Sayer et al. 2013).

### **5.2.4 Integrative cultural values**

Burkina Faso has about sixty ethnic groups, among which the Fulbe (Fulbè/Fulani) are among the most numerous and whose language (Fulfuldé) is one of the three most important national languages of the country, along with Mooré and Dioula (Ima-Ouoba 2018). The 2019 population census estimated the number of Fulfulde speakers at 7.8% of the total 20,505,155 inhabitants (MEFP 2022). Despite this ethnic diversity, the groups generally live in harmony, despite occasional disputes between them. Social relations between ethnic groups are strongly influenced by *relation à plaisanterie* or *parenté à plaisanterie*,<sup>9</sup> which is a cultural value that governs and makes interpersonal and community relations friendly, thus serving as an instrument for national integration (Zoungrana 2016). It is a social practice consisting of insulting, threatening and mocking each other in an atmosphere of jokes and a dynamic of fraternisation, camaraderie and solidarity between ethnic groups (Nyamba 2001). Thus, ethnic groups that are joking relatives become cultural allies, the golden rule of avoiding conflict at all costs. The Fulani, for example, are jokingly allied with the Bobo, Yarcé, Bambara, Marancé and Dioussambé ethnic groups (Nyamba 2001). This alliance plays a key role in strengthening the social integration process of nomadic communities, often favouring the amicable resolution or avoidance of conflicts between Fulani pastoralists and farming communities (Diallo 2006). In this way, jovial relationships can contribute to meeting the challenge of social cohesion and inclusion. They constitute an important asset in conflict prevention and management in Burkina Faso. In Northern Ghana, the concept of a jovial relationship is also known among the Dagaaba and Gurune (or Frafra) and between the Kasena and Sisaala (Wegru 2000).

## **5.3 Difficulties encountered**

Despite the efforts made and the results achieved in Burkina Faso regarding the prevention and management of farmer-herder conflicts, several difficulties are encountered (Interview government officer 2 July 2020), including:



- Insufficient financial means allocated by the state to achieve or enable better results. The institutions put in place are, therefore, dependent on external donor funding.
- There is no legal framework for defining and monitoring conflicts. As a result, farmer-herder conflicts are often treated superficially, limited to compensation for losses, without really addressing the root causes and indirect implications of these conflicts.
- The current crisis linked to terrorism is a real challenge to pastoralism in Burkina Faso. The army and some local communities often mistakenly consider pastoralists as terrorists, while pastoralists themselves suffer from attacks by terrorists who rob their animals for food.
- There is a lack of concertation, coordination and synergy between the action plans and projects of ministries engaged with rural development and their implementation. This sometimes creates ambiguities and conflicting objectives in the field.

These insufficiencies reveal the need for all public and private actors to strengthen cooperation and coordination for better governance of farmer-herder conflicts. Moreover, they show the need for more appropriate approaches towards preventing and minimising such conflicts, to which we will turn in [Section 6](#).

#### ***5.4 Restrictions to applying the lessons learned from Burkina Faso to Ghana***

The Burkinabe experience and success factors addressed above can serve as a model for Ghana to reduce and improve the management of farmer-herder conflicts. However, there are fundamental differences between the contexts of these two countries, which may constitute constraints to the implementation of similar measures in Ghana:

- In Burkina Faso, the Fulani community is recognised as being of Burkinabe nationality. This makes it easier for them to participate and have their interests taken into account in planning and decision-making bodies on matters that concern them, including pastoral practices. Ghana's situation is more complex because this community is not recognised as Ghanaian.
- The 'joking relationship' is a practice that positively affects relationships between the Fulani and other ethnic groups in Burkina Faso, thus promoting peaceful co-existence, which is less generally known and practised in Ghana (but see Wegru 2000). Resource persons in Ghana were only aware of jovial relationships between the Fulani and the Yarcé and Wangara, who were originally Burkinabe migrants. As a result, they are easily marginalised by autochthone ethnic groups.

## **6. The potential of integrated landscape approaches in the context of farmer-herder conflicts**

### ***6.1 The potential of integrated landscape approaches to contribute to conflict resolution***

Although considered peaceful and stable, Ghana has experienced multiple conflicts, particularly in its northern part, with recurrent disagreements between Fulani herders and farmers (Mahama and Longi 2015). These conflicts negatively affect social cohesion and



co-existence; make collaboration between the two communities difficult or impossible; and result in damage such as the destruction of property and livelihoods, injuries, and often loss of life (Ofuoku and Isife 2010; Mahama and Longi 2015; Bukari 2017). When these conflicts escalate into community conflicts (see Table 6), the damage is considerable, and the two groups end up regarding each other as enemies, which perpetuates the conflict (Mensah et al. 2016).

In addition, conflicts are likely to affect the sustainable management of the landscape's natural resources, as is already the case in Northern Ghana, where land-use conflicts occur between multiple stakeholder groups, namely Fulani pastoralists and farmers (Kuusaana and Noagah Bukari 2015); natural resource users and the Ghana Forestry Commission (Wardell and Lund 2006); and farmers, women shea fruit collectors, and large-scale mining concessions (Moomen and Dewan 2016).

Faced with the development effects caused by conflicts, the search for their resolution and the consolidation of peace has become a priority and a challenge for state institutions and development partners for whom the integration of conflict management in development programmes and strategies has become a necessity (Mahama and Longi 2015). A holistic and iterative approach is needed to deal adequately with farmer-herder conflicts and their causes and identify appropriate conflict management measures (Bukari et al. 2018).

Integrated landscape approaches (ILAs) are potentially useful in this respect. They offer the ability to negotiate trade-offs and competing claims to land uses and facilitate multiple land uses within a multifunctional landscape; ensure the sustainability of natural ecosystems; and address contemporary challenges related to biodiversity loss, climate change, food insecurity and poverty (Sayer et al. 2013; Reed et al. 2015; Ros-Tonen et al. 2018; Reed et al. 2020). They are forms of landscape governance that help minimise stress and conflict related to natural resource use, notably by establishing multi-stakeholder platforms. These consultation and dialogue frameworks bring key stakeholders together to negotiate trade-offs between potentially conflicting land uses and develop scenarios for more sustainable landscape management (Kusters et al. 2018). They thus facilitate collaboration between different natural resource users (Opdam et al. 2016) and could be a good starting point for establishing a frank and sustainable dialogue between Fulani and farming communities in Northern Ghana.

Adopting ILAs has the advantage of breaking with sectorial forms of land and conflict management in favour of holistic, adaptive, multidisciplinary and multisectoral governance. It offers a chance to make collective cross-sectoral decisions on landscapes and land uses within them. Moreover, landscape approaches are generally part of a conservation dynamic aiming for stakeholders to gain more and lose less (Sayer et al. 2015; Reed et al. 2017; Ros-Tonen et al. 2018). In Northern Ghana, such approaches could constitute an opportunity for farmers and Fulani pastoralists to derive positive and more equitable benefits from their collaboration in using landscape resources.

Conflicts between farmers and pastoralists can be reduced if rules and infrastructure are established for the benefit of farming and pastoralist communities alike and if their rights and responsibilities are clearly defined and known (UNOWAS 2018). In addition, social networks are crucial in the interactions between Fulani pastoralists and local farmers sharing the same landscape (Bukari 2017). To prevent or peacefully manage conflicts in multifunctional landscapes, group dynamics and the participation of all stakeholders (including local authorities, community leaders and resource persons) in negotiation

processes are crucial (Thébaud and Batterbury 2001; Bukari 2017). Indeed, landscape governance processes, and hence the management of conflicts between multiple stakeholder groups, are iterative and result from numerous consultations and consensual decision-making among stakeholders operating in different sectors and at different levels and scales (Van Oosten 2013). From this point of view, ILAs have an important role to play, as they promote consultations between stakeholders on land uses to overcome trade-offs, strengthen synergies between actions of different stakeholders, and contribute to the achievement of the Sustainable Development Goals (SDGs) (Mbow et al. 2015; Ros-Tonen et al. 2018; Timko et al. 2018; Reed et al. 2020). However, the key informant interviews and literature on farmer-herder conflicts in Northern Ghana revealed many challenges and barriers to the implementation of some ILA principles (Bukari and Schareika 2015; Gaye 2017; Soeters et al. 2017). These include negative perceptions of Fulani among settled farmers; neglect of pastoral activities in development plans; the lack of a body to manage conflicts between farmers and herders; exclusion of Fulani from multi-stakeholder platforms and other decision-making bodies; and a lack of funds to manage farmer-herder conflicts. The next section will address these challenges and how these can be overcome by implementing integrated landscape approaches and other related actions.

## **6.2 Challenges for the implementation of ILAs in the context of Northern Ghana**

The principles underpinning integrated landscape approaches (ILAs) suggest transparent and inclusive deliberations (Sayer et al. 2013), which could facilitate the resolution or prevention of land-use conflicts, such as those between farmers and Fulani pastoralists in Northern Ghana. However, landscape governance through integrated landscape approaches should be based on a deep analysis of contextual problems to find solutions rather than be an exercise in implementing optimistic principles (Forsyth and Springate-Baginski 2021). As such, it appears that the contextual conditions do not currently provide a favourable environment for the effective implementation of such approaches.

Considering the current dynamics in Northern Ghana, we suggest that principles 4, 5, 6, and 7 (see Table 1) require particular attention prior to implementation efforts. Being considered 'strangers', Fulani are essentially excluded from decision-making in the landscape (Kuusaana and Noagah Bukari 2015; Bukari and Schareika 2015), thus obscuring the *equity in the decision-making process* advocated by principle 5. Similarly, local people, notably farmer communities, who see Fulani as non-Ghanaians who have no right to interfere in their affairs, are reluctant to involve them in the planning of the desired future landscape. Furthermore, getting these local communities to accept the legitimacy of a *negotiated transparent change logic* (principle 6) will be challenging if prior action is not taken to change perceptions. Likewise, the chances of *negotiating compromises* (principle 4) are low given the long-standing conflictual relationship between farmers and Fulani pastoralists. Indeed, principle 4 calls for trust and goodwill between stakeholders (Forsyth and Springate-Baginski 2021), which is not the case between these two groups. Principle 7 suggests that all stakeholders, including conflicting groups, should have well-known *rights and responsibilities* (Sayer et al. 2013). However, no rights are recognised for the Fulani, particularly regarding land access (Bukari and Schareika 2015; Bukari 2017). Their non-Ghanaian status denies them rights but, ironically, imposes on them the responsibility to respect regulations at national and local levels. Thus, the local realities of Northern Ghana,

characterised by deep rivalries and even hostility between farmers and Fulani pastoralists, constitute significant obstacles for the successful implementation of integrated landscape approaches.

Moreover, Sayer et al. (2015), in their study, identified ten pre-conditions that need to be met to ensure the transition to a more favourable environment for the implementation of ILAs. In the case of Northern Ghana, some of these pre-conditions are missing and/or require greater attention, such as:

- The existence of inspired leadership: local political and civil society actors should show commitment and leadership in facilitating consensus on natural resource use, thus enabling the success of conservation initiatives. This dynamic, which is not very visible in Northern Ghana, could contribute effectively to resolving social conflicts, including those between farmers and herders.
- The existence of an appropriate strategy to address deep-seated divergences: resolving conflicts of interest often requires financial compensation or the application of binding rules.
- Strong systemic governance: this precondition, which implies that ‘agreements have to be enforceable by law, cadastral records need to be in place, and land rights need to be clear’ (Sayer et al. 2015, p. 353), is needed in the context of Northern Ghana to facilitate the establishment of land-use plans and adequate conflict resolution mechanisms.
- Policies, budgets and implementation commitments are key to addressing landscape issues, especially the conflictual relationship among stakeholders. Indeed, public policies favourable to the inclusion of marginalised groups, supported by the availability of budgets dedicated to their implementation, would be a great asset to foster a dynamic of peaceful cohabitation and more equitable governance of landscape resources.

### **6.3 Proposals to address the main challenges to integration**

#### **6.3.1 Improve mutual perceptions between farmers and Fulani pastoralists**

Many stereotypes and prejudices weigh on the Fulani pastoralists in Ghanaian society (Bukari and Schareika 2015). In addition to being considered non-citizens, they are commonly perceived as unreliable people who are often denied the right to cohabit in local communities and make use of natural resources (Bukari and Schareika 2015). Even if they settle in a community, they are still victims of segregation and social marginalisation, irrespective of the length of their stay and the mutually beneficial interactions they have created with the community (Bukari and Schareika 2015). Thus, Fulani pastoralists are generally perceived negatively within Ghanaian communities, making it difficult for them to be included in local governance processes. However, prejudice, stereotypes and discriminatory acts are generally perpetuated among ethnic groups who interact as autochthons and strangers (Bukari and Schareika 2015). Hence the local farmer communities need to view the Fulani pastoralists more positively and vice versa. Therefore, it is necessary to positively change how farmer and pastoralist communities perceive each other to enable collaboration between the landscape actors and facilitate the integration of Fulani pastoralists into consultation platforms. To do so, sensitisation and capacity building are much-needed measures for the benefit of all social actors. These actions could be considered in the programmes developed by NGOs, government agencies, private companies, and civil

society organisations that are active in the area, especially those engaged in the application of integrated landscape approaches.

### ***6.3.2 Reinforce the consideration of pastoral activity in development processes***

Pastoralism is a little considered activity in many African countries compared to agriculture, which expands at the cost of grazing land (UNOWAS 2018). It is generally perceived as a backward practice, while sedentary agriculture benefits from policies favourable to its development (Benjaminsen and Ba 2009). Relegated to the background, to the point of being considered a sub-sector of agriculture, the role of pastoralism in the conservation of natural resources is poorly known and often outright ignored in land-use planning (UNOWAS 2018). This neglect of pastoralists and the failure to consider their needs in development and territorial planning processes facilitate land-use conflicts between pastoralists and farmers in Northern Ghana. Hence it is important that governments recognise the value of pastoralism as a land-use system that can significantly contribute to local and even national development and act accordingly to ensure peaceful co-existence between farmers and pastoralists (Omotayo 2002; UNOWAS 2018). The emergence of participatory and inclusive multi-stakeholder platforms that address issues related to pastoralism could be a step forward towards a better consideration of this activity in land-use planning and national development schemes and contribute to a significant decrease in the number of farmer-herder conflicts.

Moreover, the valorisation of pastoralism requires the development of incentive policies for actors in the field. In Ghana, the policies regarding citizenship led to the exclusion of Fulani pastoralists (Tonah 2003, 2006; Bukari and Schareika 2015). They are often expelled from the country because they are officially considered foreigners, even if they were born and are residents (Bukari and Schareika 2015). Although Fulani began to frequent Ghana over a century ago, they are not considered an accepted ethnic group in the country (Bukari and Schareika 2015; Bukari 2017). Even though censuses have sometimes counted some Fulani in the Ghanaian population, their official number remains unknown. They are purposely not recorded in the national census, so they do not have the right to vote (Bukari and Schareika 2015). However, the study by Tonah (2006) estimated the number of Fulani in Ghana in the 1950s to be about 5,500, rising to around 25,000 in 1960. This increase could be explained by the significant influx of pastoralists due to the onset of the 1960s droughts in the Sahel (see Section 4.1). The more recent study by Bukari and Schareika (2015) estimates the number of Fulani settled in Ghana at over 14,000. This regressive trend could be linked to out-migration to other countries. To be eligible for Ghanaian citizenship, Fulani must meet one of the following conditions: have ancestry born in Ghana before 1957, be married to a Ghanaian citizen, or be naturalised (Bukari and Schareika 2015). This non-Ghanaian status constitutes a major constraint to their inclusion in territorial or landscape governance processes at both the national and local levels.

### ***6.3.3 Encourage the creation of local bodies to manage farmer-pastoralist conflicts***

The persistence of conflicts between farmers and Fulani herders in Northern Ghana testifies either to the lack of attention paid to their management by the authorities or to the need for more sustainability of the solutions adopted (Gaye 2017; Soeters et al. 2017). Given the damage that is often caused, sustained attention to managing these conflicts, particularly by establishing local bodies dedicated to this issue, as in Burkina Faso, would be a major asset

for implementing sustainable and iterative solutions. This could help maintain a certain harmony in social relations between communities. These bodies should involve local authorities (administrative and traditional) and other relevant landscape stakeholders. Such conflict arbitration frameworks need to be inclusive and sensitive to traditional values (Omotayo 2003). To achieve this, civil society organisations committed to social cohesion and inclusive development need to lobby with the relevant authorities and institutions.

#### ***6.3.4 Promote the inclusion of Fulani in existing multi-stakeholder platforms***

It is difficult to bring together two or more actors or groups of actors with a long history of mutual animosity and conflict (UNOWAS 2018). One of the challenges of implementing integrated landscape approaches is to establish truly participatory and inclusive consultation frameworks, bringing together often opposed actors to clarify competing claims and negotiate solutions. In the context of Northern Ghana, the implementation of the Community Resource Management Area (CREMA)<sup>10</sup> system is an asset for the operationalisation of these approaches, but the challenge is to stimulate and encourage the participation of Fulani and to give them a place in decision-making bodies and all processes related to the governance of their landscapes on an equal footing with other stakeholders. This is needed to create the conditions for identifying conflicting interests and rivalries over access to natural resources and common concerns, better conflict management and, above all, calm the atmosphere between farmers and Fulani by reconciling their interests. It is important to involve Fulani pastoralists in the search for solutions to problems that undermine good landscape governance so that the strategies adopted are more likely to work and enhance their well-being (FAO 2017). Furthermore, using a multi-stakeholder platform within the framework of territorial, landscape or stakeholder governance is advised to offer the various actors equal opportunities to express their concerns, negotiate and find a unanimous solution for peaceful co-existence (Mensah et al. 2016). Nevertheless, prior consultation and sensitisation with the various protagonists may be necessary to reconcile or reduce tensions upstream.

#### ***6.3.5 Mobilise funds for conflict management***

Conflict management is an expensive operation that requires concerted efforts by all parties involved (UNOWAS 2018). Indeed, the functioning of frameworks for exchange, negotiation and reflection to resolve or prevent conflicts requires that financial resources be mobilised. For this reason, the agencies and organisations involved in the search for peace should join their financial resources and work in synergy (UNOWAS 2018). For example, they could set up joint projects and seek the support of their various donors for co-financing. Table 7 summarises the challenges and proposed solutions mentioned in the literature, according to the authors.

## **7. Conclusion: the prospects for the inclusion of Fulani in the context of Northern Ghana**

Many Fulani have settled permanently in Ghana since they migrated there; they have integrated and are often engaged in occupations other than animal husbandry (Bukari and Schareika 2015). This sedentarisation process constitutes an opportunity to strengthen social ties between farmer communities and the Fulani. In addition, it could facilitate the

**Table 7.** Overview of principal challenges and proposed solutions and actions.

Challenges	Proposals and actions to address	References
Negative perceptions between farmer and herder groups	Improve mutual perceptions between farmers and Fulani pastoralists: <ul style="list-style-type: none"> <li>• <i>Sensitisation;</i></li> <li>• <i>Capacity building</i></li> </ul>	Bukari and Schareika (2015)
Neglect of pastoral activities in development plans	Reinforce the consideration of pastoral activity in development plans <ul style="list-style-type: none"> <li>• <i>Sensitising decision-makers on the importance of pastoralism as a land-use system;</i></li> <li>• <i>Involving pastoralists in development planning platforms;</i></li> <li>• <i>Development of incentive policies in favour of pastoralism</i></li> </ul>	Bukari and Schareika (2015); Tonah (2006); UNOWAS (2018)
Lack of a body to manage conflicts between farmers and Fulani	Encourage the creation of local bodies to manage farmer-pastoralist conflicts <ul style="list-style-type: none"> <li>• <i>Advocacy with the relevant authorities and institutions</i></li> </ul>	Gaye (2017); Soeters et al. (2017)
Exclusion of Fulani from multi-stakeholder platforms and other decision-making bodies due to their non-Ghanaian status	Promote the inclusion of Fulani in existing multi-stakeholder concertation platforms <ul style="list-style-type: none"> <li>• <i>Inclusive multi-stakeholder platform;</i></li> <li>• <i>Prior consultations and sensitisation with stakeholders in the conflict</i></li> </ul> Develop a more integrative citizenship policy <ul style="list-style-type: none"> <li>• <i>Advocacy with the relevant authorities and institutions</i></li> </ul>	Bukari and Schareika (2015); FAO (2017); Mensah et al. (2016); UNOWAS (2018); Tonah (2006)
Lack of funds to manage farmer-herder conflicts	Mobilise funds for conflict management <ul style="list-style-type: none"> <li>• <i>Synergy of actions;</i></li> <li>• <i>Developing joint projects</i></li> </ul>	UNOWAS (2018)

acceptance and inclusion of the Fulani in local governance bodies alongside other stakeholders in the long term.

However, in Northern Ghana, the relationship between sedentary farmers and Fulani pastoralists is strongly characterised by conflicts over the use of land and natural resources. Causes are the destruction of crops by cattle and the disruption of grazing land and transhumance routes through agricultural and settlement expansion, exacerbated by underlying factors such as the adverse effects of climate change, the consequences of land policies, and increasing urbanisation and population growth. These conflicts threaten social cohesion and co-existence and undermine cooperative relations between farmers and Fulani herders, who are marginalised and stigmatised.

In this paper, we argued that landscape approaches could favourably ameliorate these conflicts, given their potential for negotiated landscape governance. Through platforms for dialogue, consultation and negotiation between the various stakeholders, integrated landscape approaches could enable better conflict management and even prevent conflicts. This requires a change in how farmers perceive the Fulani; including Fulani in natural resource governance processes by engaging them in local governance bodies and multi-stakeholder platforms; and considering pastoralism in development and land-use planning. The Burkina experience in managing farmer-herder conflicts is a model from which lessons can be learned and applied to the context of Northern Ghana.



Despite the resurgence of conflicts between pastoralists and farmers in some parts of Northern Ghana, there are also signs of hope regarding the improvement of the social relations between them (Bukari 2017; Bukari et al. 2018). The collaborative relations around certain activities such as trade, livestock breeding, and community work remain fairly strong (Bukari 2017; Bukari et al. 2018). Mutual visits and mixed marriages could further improve their co-existence. The persistence of the bonds of cooperation, solidarity and friendship between these different social groups could be seen as the beginning of the social inclusion of the Fulani.

## Notes

1. Also known as Fula, Fulbe, and Peul.
2. Institut de l'Environnement et de Recherches Agricoles (INERA).
3. Service Chargé de la Transhumance et des Conflits Pastoraux and Département en charge de la Gestion des Crises Alimentaires et Vulnérabilités en Elevage of the Ministère des Ressources Animales et Halieutiques.
4. Nowadays, this ministry is denominated Ministère des Ressources Animales et Halieutiques (Ministry of Animal and Fisheries Resources).
5. Cadre de concertation régional (CCR), Cadre de concertation provincial (CCP) and Cadre de concertation communal (CCC).
6. Loi N° 034–2002/AN du 14 novembre 2002 portant orientation du pastoralisme au Burkina Faso.
7. Décret N° 2007–407/PRES/PM/MRA 3 juillet 2007 portant création, attributions, composition et fonctionnement du Comité national de la transhumance) and the decree on the settlement of disputes between farmers and herders in Burkina Faso (Arrêté conjoint N°2000–31/MRA/AGR/MEE/MEF/MATS/MEM/IHU du 21 juillet 2000 portant règlement des différends entre agriculteurs et éleveurs).
8. Commissions Villageoises et Départementales de Conciliation.
9. In English it is known as 'Joking relationship' (Wegru 2000).
10. In the 2000s, the government of Ghana, through its Forestry Commission (Wildlife Division), adopted and put in place a community-based landscape governance system called Community Resource Management Area (CREMA) to ensure inclusive governance based on dynamic collaboration between the diverse landscape stakeholders (Agyare et al. 2015).

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