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Land, cows, and bullets: an untold history of cattle ranching during the armed conflict in Colombia, 1980–2010

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This article reflects on the history of cattle ranching in Colombia and how it was impacted by the armed conflict in the country and its regions, and the transformation amongst decades of forms of violence and actors involved in this scenario. To conduct the analysis, a review of academic literature on the relationship between cattle ranching and armed conflict in Colombia and some African countries was carried out. Subsequently, a database of 206 violent events related to cattle ranching was constructed, covering three decades of armed conflict (1980–2010), based on primary sources from reports, police evidence, and testimonies of two previous databases. This database contributed to the analysis of the impact of violence on the cattle ranching industry. Thus, this article contributes to the understanding of the history of cattle ranching in Colombia and to the complex transitional process in Colombia today. It demonstrates that productivity and efficiency have not always been the prevailing principles in the history of the cattle industry, but that land tenure and accumulation have operated as a way of securing power by the agrarian and political elites of the country. Such approaches are crucial for comprehending the historical connection between conflict and cattle ranching, especially if the aim for this sector is to adapt to a logic of productivity and innovation in the contemporary world. Also, the findings show that further research on these topics, i.e., related to current environmental and social problems such as climate change, food security, and new social and geopolitical challenges, is needed.

KEYWORDS

cattle, armed conflict, violence, warfare system, cattle sector

1 Introduction

Historically, it has been assumed that the Colombian armed conflict has maintained a close relationship with cattle ranching, but academic readings on this relationship are scarce. Despite the regional dynamics of the conflict, displacement, and land use in certain areas of the country constituting tangible evidence linking large-scale cattle production to the war in Colombia, the historical understanding of this phenomenon is just beginning to take shape (Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017; Ponce de León-Calero, 2019; Romero-Rodríguez, 2019). The significant political power of regional cattle elites, imperfect demobilization and disarmament processes of armed groups, and a systematic and violent silencing of those who amplify these connections also hinder the understanding and theorization of this relationship (Romero, 2000; Reyes, 2009; Salinas and Zarama, 2012; Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017; Centro Nacional de Memoria Histórica, 2018; Ponce de León-Calero, 2019).

In the last decade, an emerging field of interpretation has been established in Colombia, mostly dedicated to conducting case studies and studying certain agricultural elites (including cattle ranching) and their agency in the Colombian war (González and López, 2007; Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017; Ponce de León-Calero, 2019; Romero-Rodríguez, 2019). These studies point out the importance of revealing the role of cattle ranchers as agents immersed in a war, often victims of the illegal capture of resources, land dispossession, and extractive logics in a conflict without winners. Additionally, economically oriented research has gained strength and methodological solidity, aiming to understand the social and productive importance of cattle ranching, proposing a different perspective from those analyses that focus on it as a driver of dispossession and barbarism (Arias et al., 2014; Arora et al., 2017; Charry et al., 2018; Burkart et al., 2021; Enciso et al., 2021a,b; Pirela Ríos et al., 2022).

The conflicts arising from the unequal distribution of cultivable land (and unclaimed lands) are not just due to the existence of traditional agricultural (and political) elites who maintained and expanded their regional power since colonial times but also have a close relationship with modernization projects in the cattle industry in the country that resonated with producers and traders. Also, accumulating land has worked as a form of maintaining economic and political power by Colombian elites (Centro Nacional de Memoria Histórica, 2018). This clearly demonstrates that when writing the history of cattle ranching in Colombia, one is also writing the history of conflict, and vice versa (Ocampo, 2007; Van Ausdal, 2009, 2012). Despite this close dual relationship, studies of cattle ranching in its productive dimension have paid little attention to how the war and its intricacies have interfered with the development and consolidation of the industry.

After the signing of the two most recent peace agreements in Colombia [the agreement for the demobilization of paramilitary groups signed in 2002 and the Final Agreement for the termination of the conflict and the construction of a stable and lasting peace between the FARC-EP (Revolutionary Armed Forces of Colombia) and the Colombian government in 2016], new social, political, analytical, and research possibilities have arisen, allowing for the reconstruction of the memory of this conflict. This has been enriched with the testimonies of victims, subjects, and agents of war in the first person, enabling the creation of more complex narratives and a deeper understanding of the twists and legacies of a long confrontation.

In this sense, this article seeks to investigate how the dynamics of the war system (Richani, 2002), in which Colombia has lived for the last 60 years, have profoundly altered the productivity logic of cattle ranching. This can be due to violence affecting production and markets or because cattle ranching in agricultural colonization has served other purposes (securing land possession, enhancing marginal lands) that do not necessarily focus on production efficiency. To achieve this objective, a database was created based on primary sources of violent events related to cattle ranching during three decades of the armed conflict (1980–2010). Additionally, an academic literature review on the relationship between cattle ranching and armed conflict in Colombia and in some African countries, where such studies have also been conducted, was performed.

The article is divided into five sections. In the first section, the methodology used for its development and the reviewed materials are briefly described. The next section provides a synthetic historical and conceptual framework on the relationship between armed conflict and cattle ranching in the country. Subsequently, the results are presented based on the analysis of documentary sources, providing evidence of the main violent events and social actors related to cattle ranching within the context of the Colombian war. The fourth section proposes a discussion of these results, considering the literature review for both the national context and the African scenario, as well as the implications of the impact of armed conflict on cattle ranching in terms of food security. Finally, some brief conclusions are presented.

2 Materials and methods

A review of academic literature on the cattle ranching–conflict relationship in Colombia during the second half of the twentieth century was conducted with the aim of constructing a historical account of this connection, while also highlighting existing gaps. Furthermore, a database was compiled consisting of information gathered from primary sources regarding violent events—understanding an event as an incident that occurred at a specific location and date—that occurred within the framework of the Colombian armed conflict between 1980 and 2010 and were related to cattle ranching. The research began with the examination of digitized archives of the *El Tiempo* newspaper, the most widely circulated newspaper in Colombia's history. However, it was found that this archive is considerably incomplete, as only a few copies of the newspaper for each month were available for the study period, and in many instances, the digitalization was inadequate. Therefore, new sources were sought: the databases of *Noche y Niebla*, a magazine dedicated to reconstructing violence in Colombia, which makes up the *Red Nacional de Bancos de Datos de Derechos Humanos y Violencia Política* (National Network of Human Rights and Political Violence Databases, *Red Bandatos*), and reports of violent events compiled by the *Boletín de Justicia y Paz* (Bulletin of Justice and Peace), conducted by the *Comisión Intereclesial de Justicia y Paz* (Inter-Ecclesial Commission for Justice and Peace), between 1988 and 1996. These sources collect direct information from reports, police reports, and testimonies.

To link the violent events to cattle ranching, all war-related incidents under the tags “cattle,” “cattle farmer,” “cattle ranching,” “livestock,” and “cows” were examined. The analyzed time range is from January 1, 1980, to December 31, 2010. The database recorded the date of each event, the location (municipality and department), and a brief description that accounts for the perpetrator of the violent act, the victim, and the details of the event. In total, 206 entries were recorded, with 99 coming from *Red Bandatos* and 107 from the *Boletín de Justicia y Paz*. Then, the events were classified in two different periods: (1) from 1980 to 1995, where the primary perpetrators of violent actions were guerrilla groups (113 events in this stage); and (2) from 1996 to 2010, when paramilitary groups gained more strength and became significant actors in the Colombian armed conflict (93 events in this stage). The relevant categories for the study were: data of the violent event, armed actor/perpetrator, department of Colombia where the event

occurred and type of violent event related to cattle ranching (the classification of the events in this last category will be explained in the Results section). All data was analyzed applying comparative qualitative analysis and content analysis.

Finally, a literature review was conducted, which, on the one hand, provides key empirical data to demonstrate the cattle ranching-conflict relationship and, on the other hand, analysis of studies on this same relationship in some African countries. The decision to analyze similar dynamics on that continent is driven by the need to find new analytical tools to address some of the gaps in research on armed conflict in Colombia. This is due to the understanding that a significant number of African countries, especially in the east (e.g., Somalia, Kenya, Uganda, Tanzania, and Sudan) and some in the west (e.g., Democratic Republic of the Congo, Niger, Nigeria, Burkina Faso, Mali, and Senegal), have experienced protracted armed conflicts in remote border areas (both national and regional, but also agricultural). These conflicts have significantly affected livestock ranching and share socio-economic factors similar to the Colombian case, such as land tenure inequalities, land grabbing, inadequate institutional presence, and population displacement.

3 Historical and conceptual framework: an approach to the history of cattle ranching and armed conflict in Colombia

As an economic and cultural activity, cattle ranching and its role in historical processes in Colombia are still in need of more precise analysis. This applies especially to the second half of the twentieth century and contemporary social dynamics, where the historical context of this industry is only beginning to be understood. Currently, there is a predominance of present-oriented analysis of where and how meat and milk are produced in Colombia and what could change within this process (Gumucio et al., 2015; Arora et al., 2017; Charry et al., 2018; Triana Ángel and Burkart, 2019; Burkart et al., 2021; Enciso et al., 2021a,b; Pirela Ríos et al., 2022), without fully grasping the complexity of cattle ranching practices and their agents over time. These studies highlight the vital economic role of cattle in various regions and producer communities in the country and its potential as a driver of progress and development. The association between cattle and progress, the expansion of the agricultural frontier, and the growth of meat and milk markets is, historically, an integral part of the narrative, and it is precisely in the genesis of this narrative where we can build bridges and methodologies to help us understand current circumstances.

Recent readings on cattle ranching in Colombia have two main aspects. Firstly, there are studies that focus on the economic analysis of its benefits, detailed examination of how to transform and increase its sustainability, especially on a small scale, contributing to an improvement in the livelihoods of rural families (Burkart et al., 2021; Enciso et al., 2021a,b; Pirela Ríos et al., 2022). Secondly, other contributions focus on the scientific study of various production systems, their challenges, opportunities, and their relationship with the environment (Arora et al., 2017; Charry

et al., 2018). Furthermore, there are social research efforts that conceptualize cattle production as both an economic and cultural activity, emphasizing the need to understand its operation from the perspective of various social actors (Toruño Morales, 2012; Gumucio et al., 2015; Vázquez-García, 2015; Arora et al., 2017; Triana Ángel and Burkart, 2019). While these interpretations are essential for understanding the cattle activity in the country, they tend to be lacking in historical context, overlooking fundamental issues like the emergence of agricultural elites, their relationship with the birth and consolidation of armed actors, land disputes in Colombia, forced displacement, and other dynamics that have marked rural populations for at least the last 50 years.

The war in Colombia plays a central role in various aspects, becoming an unavoidable narrative when it comes to understanding the modern history of the country, something that recent cattle ranching studies have often neglected. While there is a growing body of literature on the relationship between cattle ranching and conflict (mostly focused on the history of the conflict and its actors), there is limited literature about the history of cattle ranching itself, particularly within the local context. Academic interpretations that shed light on the role of extensive cattle ranching in the internal armed conflict reveal what has intentionally been obscured, such as the involvement of certain regional agricultural elites in perpetuating the conflict. This is in line with historiographical debates on land tenure and the agrarian problem in Colombia (LeGrand, 1989; Villarraga, 2007; Reyes, 2009; Thomson, 2011; Salinas and Zarama, 2012; Gutiérrez-Sanín and Vargas, 2017; Peña et al., 2017; Faguet et al., 2020). The unequal distribution of cultivable land, inherited from the colonial experience and the nineteenth century expansion of the agrarian frontier (Faguet et al., 2020) is a specter that has hindered the fair development of rural areas and populations. As Faguet et al. (2020) show, the landholding elites captured land across the twentieth century in diverse rural areas of the country to secure their economic and political power. In areas where latifundia was low or absent, land distribution improved the income and wealth of poor peasants, by transferring productive assets to them and increased investment in public services. In contrast, where there was a high concentration of land, poverty increased. This has also revealed how the genesis of bipartite and ideological conflicts has always revolved (although not exclusively) around land and, therefore, is closely related to agricultural activities such as cattle ranching (Acemoglu et al., 2009). Historical perspectives on this issue have been based on statistical data about land ownership and its uses and have dissected the structure and operation of various armed groups, finding tangible links between ideological factions and agricultural elites (Villarraga, 2007; Acemoglu et al., 2009; Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017; Faguet et al., 2020).

Significant work was done on the historical memory of the victims and agents of the war, contributing to unraveling the participation of cattle ranching guild elites in the conflict and the experiences that residents of those regions endured during territorial clashes between various factions (paramilitaries, state forces, and guerrillas; Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017; Centro Nacional de Memoria Histórica, 2018; Ponce de León-Calero, 2019). However, the topic still requires more in-depth research. Much is known about

the role of large-scale cattle ranching in the continuity of the conflict and dispossession practices, but less is known about the victimization processes of small cattle ranchers, who also had to navigate the complexities of the war (Cotte-Poveda and Duarte-Rojas, 2014; Ponce de León-Calero, 2019; Romero-Rodríguez, 2019). Additionally, very little is known about the daily interactions between armed actors and cattle ranchers in various regions amid the web of conflict. Furthermore, it is mostly unknown how land ownership and the purchasing power of large producers served not only to finance the war but also to survive it (Romero, 2000; Barón, 2016; Ponce de León-Calero, 2019).

A few historical readings on cattle ranching in Colombia between 1850 and 1950 aim to recognize and expand the multiple meanings and narratives surrounding its role in the expansion of agricultural frontiers, as the core of economic development projects and as a protagonist in transnational discourses about the tropics, which determined the nature of the activity as it is known today. For instance, Van Ausdal (2012) explains how the British merchants and meat exporters, driven by their fragmented diplomatic relations with Argentina, sowed the supposed (and impossible) promise of a solid, technified, and prosperous cattle industry in Colombia. European conceptions of tropics, which were factually foreign to them, led them to invest considerable sums of money in meat processing companies that ultimately failed. They also encouraged the adoption of improved pastures that time would show were not suitable for Colombian soils, and they persistently sought to transform traditional cattle ranching methods under the promise of greater economic returns and, consequently, a path to unattainable progress. This narrative intersects the economic history of cattle production with the natural history of early twentieth-century scientific discourses that attempted to turn the Colombian plains, teeming with native pastures, into petri dishes of artificial pastures, a transition that local producers quickly abandoned. At the height of the beef industry in Argentina and Uruguay with a focus on exportation (from the 1920's onwards), practices such as introducing European cattle breeds, technological innovations, and the intention to tap into new markets collided head-on with an almost non-existent government presence in rural areas, a deficient infrastructure, and limited impact of innovative proposals concerning pastures and rotation systems, which did not resonate much with local producers in Colombia (Ocampo, 2007; Van Ausdal, 2009, 2012). Far from becoming another cattle powerhouse in Latin America, Colombia remained partially relegated to continuing its more traditional and territorially extensive practices. This was because most logistical processes (not just breeding, fattening, and slaughter) could not be effectively carried out in a country dominated by three mountain ranges, with poor transportation routes and limited educational initiatives among its producers.

The associative ideas between cattle ranching and progress, however, left their mark on local producers. Even though most of them did not continue with the modernization processes on their farms, they did understand that meat (and milk) were valuable and in high demand. Consequently, the acquisition of land became urgent and central (Van Ausdal, 2009, 2020). By paying attention to how international traders early on introduced concepts of productivity, profits, and the expansion of cattle markets in

Colombia, Van Ausdal (2012) introduces an overlooked element in the historical understanding of land disputes: the importance of scientific and economic knowledge (and the circulation of these discourses) in making cattle ranching a profitable and desirable activity for many rural producers, both small and large.

4 Results from the database on violent incidents, cattle ranching, and armed conflict (1980–2010)

The violent incidents related to cattle activities within the armed conflict during the studied period can be classified into the following categories:

- Ranchers (understood as individuals engaged in cattle ranching or commercial trade) killed by members of illegal armed groups (guerrillas, paramilitaries, or unidentified groups): 65 out of 206 recorded violent incidents, accounting for 32% of all cases.
- Cattle theft, dispossession, and harm to livestock: 29 incidents, 14% of the total.
- Ranchers kidnapped by an armed group, usually a guerrilla group, and subsequent rescue operations by the security forces: 12 incidents, 6%.
- Ranchers subjected to extortion and threats by an armed group: 14 incidents, 7%.
- Violent attacks by illegal armed groups against the Cattle Bank or commercial activities related to cattle: four incidents, 2%.
- Glyphosate fumigation affecting cattle and their livelihood: two incidents, 1%.
- Retaliations and alliances between ranchers, illegal armed groups, and security forces: two incidents, 1%.

It is important to mention that some victimizing incidents are mixed, meaning that more than one of the aforementioned events occurred simultaneously. The most common combinations were killings and kidnapping (12% of the incidents), killings and livestock theft (9%), and killings and extortion (7%). This means that if we add these three to the initial percentage of killings, we find that this victimizing event was the primary impact on cattle ranchers in the context of the conflict, accounting for a total of 60% of the victimizing incidents recorded in the consulted sources. Also, cattle theft and harm to livestock appears in the mix of related events with 33% of incidents, which is a significant amount of incidents, evidencing that such events are crucial for the financing of war activities by the illegal armed groups.

Regarding the characterization by the armed perpetrator, 50% of the incidents were caused by a guerrilla group (FARC-EP, ELN, EPL), 17% corresponded to paramilitary groups, and 11% to the Colombian armed forces (Army or National Police). In 19% of the cases, the armed actor was never identified. In four cases (2%), an alliance between paramilitaries and the Colombian armed forces is documented, and in one case, the harm occurred in the context of a confrontation between FARC-EP guerrillas and the Autodefensas Unidas de Colombia AUC (United Self-Defense Forces of Colombia, paramilitaries). The

TABLE 1 Violent events by stage of the armed conflict.

Stage	Number of violent events	Share of total violent events (%)
1980–1995	113	54.85
1996–2010	93	45.15
Total	206	100.00

TABLE 2 Violent events by perpetrator group.

Perpetrator group	Number of violent events	Share of total violent events (%)
Guerrillas (unspecified)	103	50.00
Unidentified	39	18.93
Paramilitary groups	36	17.48
Public forces (e.g., army, police, etc.)	23	11.17
Public forces and paramilitary groups	4	1.94
FARC-EP and AUC	1	0.49
Total	206	100.00

high percentage (19%) of unidentified armed groups is striking, indicating both underreporting in these statistics and the need for further investigative efforts to contribute to the truth, the clarification of events, justice and reparations for the victims in the transitional scenario that is currently in operation within the country framed by the signing of the Peace Agreement with the FARC-EP in 2016. Tables 1–3 provide an overview on the violent events and perpetrator groups for the study period.

It is also noteworthy that the majority of the reported violent actions took place in traditional cattle ranching regions of Colombia, particularly in the departments of Antioquia (18%) and Meta (13%), as well as the plains of the Caribbean region, mainly in Cesar (12%), Córdoba (9%), and Sucre (7%).

When analyzing the temporal evolution of violent events, two distinct stages related to the dynamics of the Colombian armed conflict in the studied period can be identified: (i) from 1980 to 1995, during which the primary perpetrators of actions against cattle ranching were guerrilla groups (113 recorded incidents during this stage); and (ii) from 1996 to 2010, when paramilitary groups gained more strength and became significant actors in the Colombian armed conflict, conducting actions against the rural, indigenous, or afro-descendant populations, as well as cattle ranchers (93 incidents recorded during this stage). Figures 1, 2 show the geographical distribution of violent incidents during the two different stages of violence.

In the first stage (1980–1995), the following characteristics can be found in the violent incidents (see Table 4):

- Systematic killings of cattle ranchers by guerrilla groups (death occurred in 82% of the incidents recorded in this stage).
- A significant number of kidnappings of cattle ranchers by the guerrillas (27% of incidents). The main motivation for the

TABLE 3 Types of violent events.

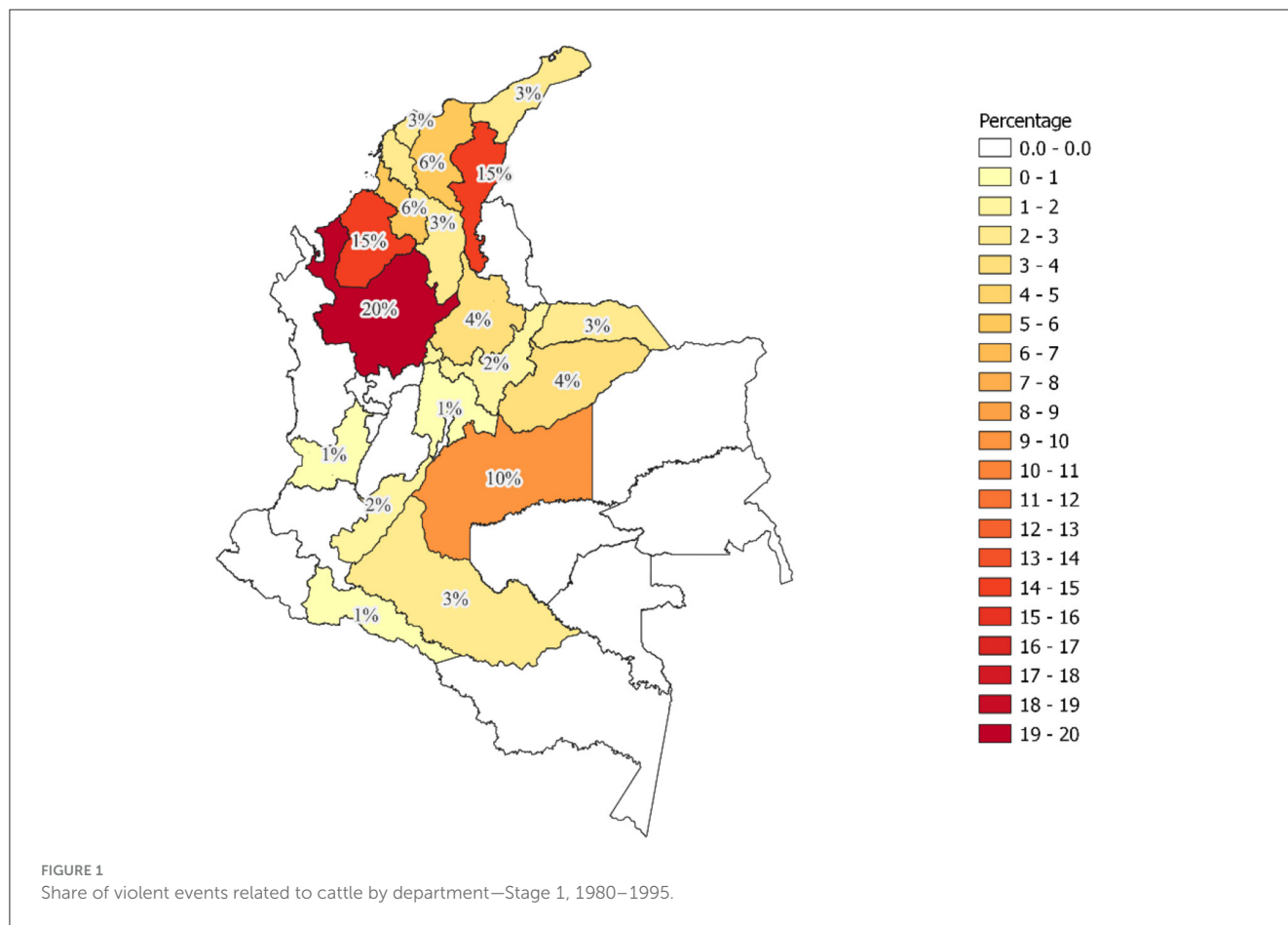
Type of violent event	Number	Share of total (%)
1	65	31.55
2	29	14.08
3 and 1	24	11.65
2 and 1	18	8.74
4 and 1	14	6.80
3	12	5.83
4	11	5.34
4 and 2	6	2.91
5	4	1.94
2, 6, and 1	4	1.94
7	2	0.97
2, 4, and 6	2	0.97
2, 4, and 1	2	0.97
2 and 8	2	0.97
3 and 2	2	0.97
8	1	0.49
9	1	0.49
4, 6, and 1	1	0.49
8, 2, and 1	1	0.49
4, 2, 6, and 1	1	0.49
3, 1, and 2	1	0.49
2 and 6	1	0.49
7 and 6	1	0.49
6	1	0.49
Total	206	100.00

Types of violent events: 1 = Cattle ranchers killed; 2 = Cattle theft, dispossession, and harm to cattle; 3 = Cattle ranchers kidnapped, 4 = Cattle ranchers subject to extortion and threats, 5 = Violent attacks against the Cattle Bank or commercial activities related to cattle, 6 = Land grabbing and displacement of cattle rancher population, 7 = Glyphosate fumigations that affect cattle, 8 = Retaliations and alliances between ranchers, illegal armed groups, and security forces, 9 = Disappearance of cattle ranchers.

killings or kidnappings is the collection of extortions (known in Colombia as “vacunas”) by the guerrillas or reprisals for non-payment of these (17% of incidents).

- The political motive is also present in the killing of cattle ranchers when, in addition to their economic activity, they have a public political role (mayors or councilors) or represent cattle ranching associations or groups (17 incidents, which represent 15% of the recorded killings in this stage).
- A greater presence of guerrillas as the identified victimizing actor (59% responsibility for the events), compared to paramilitary actions (6% of cases). Again, the percentage of unidentified perpetrator is high (32% of events without clear/identified armed group; see Table 5).

Numerous battles between the Colombian armed forces and guerrilla groups, occurring during rescue operations



of kidnapped cattle ranchers or attempts to prevent extortion collections.

On the other hand, the second stage, starting from the late 1990's (1996–2010), which corresponds to the rise of paramilitary groups and the intensification of the armed conflict across the country, has the following characteristics concerning the violent events related to cattle ranching (see Table 6):

- The killings of cattle ranchers by guerrillas continues, but it is found that paramilitaries also kill cattle ranchers when they refuse to collaborate or contribute financially (39% of the incidents in this stage, with an increased involvement of paramilitaries compared to the previous period (in 31% of the incidents paramilitaries were identified as victimizing actors, compared to 39% for guerrillas; see Table 7).
- Systematic cattle theft, demonstrating that (a) cattle became a spoil of war resulting from armed actions, displacements, and settlements, and (b) cattle are a war resource because their possession equals a source of funding and can provide food and provisions for troops and combatants (64% of the incidents involve cattle theft).
- The rural population, caught in the crossfire between guerrillas, paramilitaries, and the Army, is stripped of their minimal subsistence assets (plots, cattle, and goods) and accused by different sides of assisting their opponents (12% of the incidents in this stage involve armed confrontations

among different groups that victimize these populations). This is related to the violent persecution of rural programs and associations that had community cattle projects, always under the pretext that these organizations were guerrilla-affiliated (new incidents that were not recorded in the previous stage).

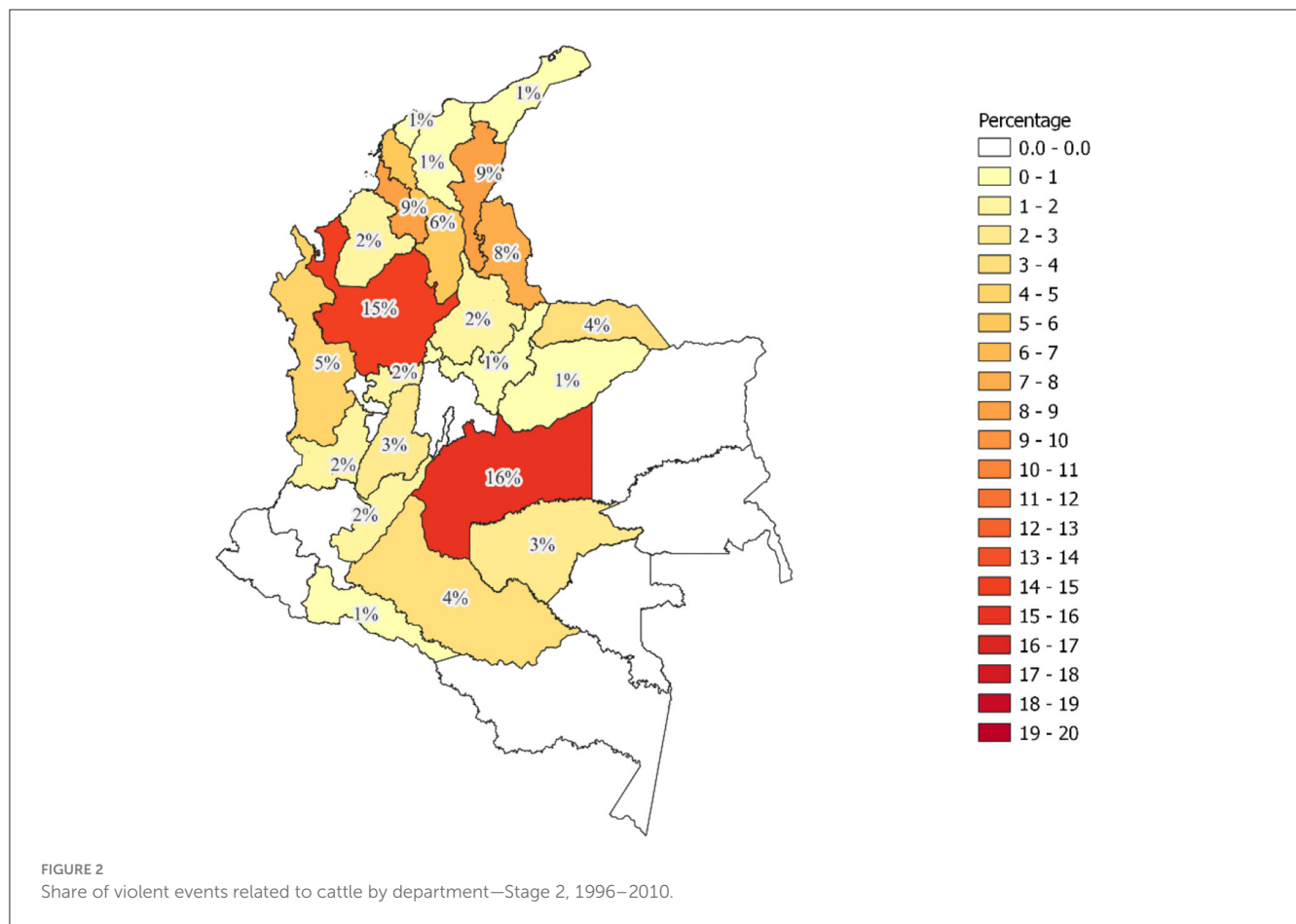
- Impact on rural cattle projects due to glyphosate fumigation in the government's fight against illicit crops.

5 Discussion

5.1 Cows and war: a partially told story

The concept of a *war system*, coined by Richani (2002), fully applies to the Colombian case. It is understood as a relational set of actors and circumstances around the dynamics of war that interact in the conflict through various tensions, whether through confrontation or affiliation, perpetuating and continuing the experience of armed conflict at a national level, integrating the actors involved in it (the state, guerrillas, paramilitaries, and drug trafficking). This system is characterized by the failure of prevailing political institutions, channels, and mechanisms to mediate, arbitrate, or resolve conflicts among antagonistic groups, who mutually benefit from the continuity of the war.

It is within the context of this *war system* that cattle ranching has developed in Colombia. However, when attempting



to provide an in-depth analysis of the relationships between armed organizations and relevant actors in Colombian cattle ranching, it becomes apparent that very little is known on the subject. What is known points to a causal relationship between paramilitary violence and regional agricultural elites in terms of financing and support for anti-communist ideological causes (Acemoglu et al., 2009; Ronderos, 2014). Despite recent literature identifying economic crimes (extortion and substantial payments for protection or not targeting the lives of cattle ranching entrepreneurs) as one of the primary sources of funding (in addition to drug trafficking) for guerrilla and paramilitary groups like the United Self-Defense Forces of Colombia (AUC) in the 1990's, the nature of these exchanges, the level of coercion used, and the specific agency of certain cattle ranching elites have not been extensively explored, differentiating them rather than treating them as a discrete and uniform population (Romero, 2000; Gutiérrez-Sanín and Vargas, 2017; Ponce de León-Calero, 2019; Romero-Rodríguez, 2019).

Similarly, there are few analyses that delved into the particular degree of victimization and vulnerability of small cattle ranching producers by guerrilla organizations and how these experiences propelled certain popular support for paramilitary movements, making sense of personal experiences in a long-lasting war and how they shape patterns of action and ideological support among different factions (Barón, 2016). In the context of cattle ranching, interactions between armed organizations and the

civilian population, as well as their regional variations according to economic activities, are still largely ignored, which hinders a proper understanding of conflict patterns and the role of cattle production within it (Arjona, 2015; Kaplan, 2017; Ponce de León-Calero, 2019).

What recent studies indicate (González and López, 2007; Peña et al., 2017; Centro Nacional de Memoria Histórica, 2018) is the clear logic of land accumulation and dispossession by paramilitary groups (with the desire for large land extensions being common to all armed actors). These paramilitary groups forcibly or voluntarily garnered support from specific segments of the rural population that did not necessarily correspond directly to small-scale producers but rather to the elites and owners of large cultivable and exploitable land, such as in the case of banana and cattle production in the Urabá region of Antioquia. This can be related to the findings in this study, which show an increase in victimizing events by armed actors identified as paramilitary groups in the second stage (late 1990's), where their responsibility for such events quintupled compared to the first period (Torres Mora, 2020; Vargas Reina, 2022; Navarrete-Cruz et al., 2023). In fact, land grabbing and displacement of cattle ranchers appears as 5% of the total violent events, increasing from 2 to 9 events in the second stage of the conflict, corresponding to the major action of paramilitary groups and their relation to the forced displacement of population in Colombia (Centro Nacional de Memoria Histórica, 2018).

As our study reveals, the impacts on cattle ranchers were widespread throughout the studied period. Killings of

TABLE 4 Types of violent events in Stage 1, 1980–1995.

Type of violent event	Number	Share of total (%)
1	54	47.79
3 and 1	19	16.81
3	11	9.73
4 and 1	10	8.85
1 and 2	6	5.31
4	4	3.54
5	3	2.65
1 and 6	2	1.77
2	2	1.77
8	1	0.88
4, 2, and 1	1	0.88
Total	113	100.00

Types of violent events: 1 = Cattle ranchers killed; 2 = Cattle theft, dispossession, and harm to cattle; 3 = Cattle ranchers kidnapped, 4 = Cattle ranchers subject to extortion and threats, 5 = Violent attacks against the Cattle Bank or commercial activities related to cattle, 6 = Land grabbing and displacement of cattle rancher population, 7 = Glyphosate fumigations that affect cattle, 8 = Retaliations and alliances between ranchers, illegal armed groups, and security forces, 9 = Disappearance of cattle ranchers.

TABLE 5 Violent events by perpetrator group in Stage 1, 1980–1995.

Perpetrator group	Number of violent events	Share of total violent events (%)
Guerrillas (unspecified)	67	59.29
Unidentified	36	31.86
Paramilitary groups	7	6.19
Public forces (e.g., army, police, etc.)	3	2.65
Total	113	100.00

cattle ranchers, as well as cattle theft and kidnapping for extortion, were the primary victimizing events within the two analyzed periods. This means that economic crimes had a significant impact on the cattle industry, accounting for 39% of the recorded incidents. Taking this fact into account, although, as previously mentioned, there is substantial presence of political motives cited in several victimizing incidents (especially in cases of murders and kidnappings), it cannot be ruled out that this is not the main factor in the majority of incidents. This implies that other types of cattle ranchers are also affected. Who are these other cattle ranchers affected by the armed conflict, who cannot be identified as individuals with political capital and presumably economic resources in their territories? The information available through the database is insufficient to provide a sociodemographic characterization of the type of individuals affected by victimizing events (for example, whether they are large- or small-scale ranchers in terms of land or cattle they own). However, it is precisely these types of investigative

TABLE 6 Types of violent events in Stage 2, 1996–2010.

Type of violent event	Number	Share of total (%)
2	27	29.03
1 and 2	15	16.13
1	11	11.83
4	7	7.53
4 and 2	7	7.53
2, 4, and 1	4	4.30
4 and 1	3	3.23
2, 4, and 6	3	3.23
7	2	2.15
2 and 8	2	2.15
3 and 2	2	2.15
6	1	1.08
5	1	1.08
3 and 1	1	1.08
6 and 2	1	1.08
6 and 7	1	1.08
3, 1, and 2	1	1.08
9	1	1.08
3	1	1.08
4, 6, and 1	1	1.08
8, 1, and 2	1	1.08
Total	93	100.00

Types of violent events: 1 = Cattle ranchers killed; 2 = Cattle theft, dispossession, and harm to cattle; 3 = Cattle ranchers kidnapped, 4 = Cattle ranchers subject to extortion and threats, 5 = Violent attacks against the Cattle Bank or commercial activities related to cattle, 6 = Land grabbing and displacement of cattle rancher population, 7 = Glyphosate fumigations that affect cattle, 8 = Retaliations and alliances between ranchers, illegal armed groups, and security forces, 9 = Disappearance of cattle ranchers.

TABLE 7 Violent events by perpetrator group in Stage 2, 1996–2010.

Perpetrator group	Number of violent events	Share of total violent events (%)
Guerrillas (unspecified)	36	38.71
Unidentified	29	31.18
Paramilitary groups	20	21.51
Public forces (e.g., army, police, etc.)	4	4.30
Public forces and paramilitary groups	3	3.23
FARC-EP and AUC	1	1.08
Total	93	100.00

exercises that need to be conducted to uncover the diverse and complex realities of the impact of the Colombian conflict on the cattle industry.

Some contemporary narratives even explore the ideological conflicts and tensions between medium and large-scale cattle ranchers and guerrilla organizations regarding the use of violence, extortion payments, or the circulation of popular discourses advocating for unionization and collective action to improve working conditions. These tensions and fractures propelled the support of certain sectors of cattle ranchers for the emerging self-defense groups in the late 1980's (Villarraga, 2007; Reyes, 2009; Thomson, 2011; Salinas and Zarama, 2012; Gutiérrez-Sanín and Vargas, 2017; Peña et al., 2017). In the results of this study, we see that kidnapping and extortion are victimizing events that consistently ranked high in both established periods, with guerrilla groups being the primary perpetrators. Another important factor to highlight is the personal experiences and prior occupations of those who became leaders of paramilitarism in Colombia, some of whom had firsthand knowledge of cattle ranching practices, owned cattle, and found the use of large land extensions for this purpose particularly attractive and profitable. This drove the implementation of well-known strategies of land accumulation, dispossession, and forced transfer of land and cattle (Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017).

Specific analyses carried out in the Meta department and general studies on the participation of agricultural elites in the Colombian war are conclusive in their findings, illustrating the dangerous connection between a rural cattle *middle class* in constant conflict with guerrilla groups like the FARC-EP and the National Liberation Army (ELN), the emergence of paramilitarism as an alternative to the confrontation between the state and insurgent groups, and its alleged nature as a protector of private property and economic interests of traders (Cotte-Poveda and Duarte-Rojas, 2014; Gutiérrez-Sanín and Vargas, 2017). The conviction for aggravated conspiracy in 2018 of the former president of the Colombian cattle federation for his financial and logistical support to Carlos Castaño, one of the top leaders of the AUC, is just one of the many examples related to this. In our study, this can be correlated with the fact that if guerrilla groups were the main perpetrators against the cattle industry, it would make sense for them to support the *protection* actions offered by the paramilitaries, a situation that occurred in times and regions with a weak and fragmented state presence that greatly favored resolving conflicts and establishing order through self-help. Although paramilitaries initially seemed to present themselves as *allies* to the interests of cattle ranchers, this does not mean, as confirmed in the database events, that they were not perpetrators of violent actions against cattle ranchers, their cattle, lands, and infrastructure.

There are also data on the exponential increase in homicides linked to the sustained growth of large landholdings; reports of land conflicts and the intensification of homicidal activity and displacement have served as banners to support and substantiate this thesis (González and López, 2007; Cotte-Poveda and Duarte-Rojas, 2014; Ponce de León-Calero, 2019). Simultaneously, a tangible relationship has been found between the acquisition of properties dedicated to cattle breeding and production and the consolidation of narcotics export routes, a vital source of profit for all armed actors in the Colombian conflict (Cotte-Poveda and Duarte-Rojas, 2014; Ponce de León-Calero, 2019). This

demonstrates that struggles for land ownership, the expansion of cattle ranching, and the course of the conflict in Colombia are and have always been interconnected stories.

In his study on the violent tactics used and perpetuated against the cattle sector, Ponce de León-Calero (2019) explores the diverse (and sometimes dissimilar) logics that interwove the relationships between cattle ranchers and armed groups, especially paramilitaries, in the process of forced resource extraction (Gutiérrez-Sanín and Vargas, 2017; Ponce de León-Calero, 2019). While the author acknowledges the fundamental role of seminal studies in the field that outline the causal relationship between paramilitarism and cattle ranching mentioned earlier, his analysis focuses on understanding cattle as a plural activity, inhabited by multiple actors with diverse interests, and therefore, they should not be homogenized as mere beneficiaries of the war (in terms of large-scale production). Despite emphasizing the obvious and evident connections between cattle elites and paramilitary leaders, Ponce de León-Calero (2019) constructs a narrative in which plural memories of the conflict find a place, relying on interviews and testimonies from ranchers in various regions of the country who recount the events in their own voices. Through in-depth qualitative analysis, the author manages to unravel how the availability of resources (more present in ranchers than in other types of farmers due to the commercial value of meat and milk) allowed rural producers to strategically survive the conflict, reduce the risk of being attacked, or flee to other territories when their safety and lives were in danger (Ponce de León-Calero, 2019). Ponce de León does not disregard the involvement of the cattle sector in the financing, formation, and expansion of paramilitary groups (Ronderos, 2014), nor does he omit that in many cases, they were a military target of the FARC-EP (Aguilera, 2013). His contribution lies in building bridges, as we propose here, seeking to understand everyday relationships beyond radical classifications such as supporting or resisting the onslaught of paramilitarism. In war, as is well-known, there are as many types of victims as there are perpetrators, an important subtlety that still eludes studies in Colombia that investigate the cattle issue, calling for differentiation between various types of production, agency, different and possible alliances, as well as the perpetuation of these conflicts in the present.

The article *Land related grievances shape tropical forest-cover in areas affected by armed-conflict* (Castro-Nuñez et al., 2017) starts from the premise that many of the world's forested areas, which are now considered of high value due to their crucial role in carbon storage and therefore in mitigating climate change, are scenes of armed conflicts. Among its findings, it reveals that in Colombia, the socio-economic processes related to the impact of armed conflict on forest areas (illicit crop production, forced displacement of populations, low institutional capacity) are connected to the unequal distribution and land grabbing, processes framed within agricultural colonization-expansion. Similarly, cattle ranching is usually present in agricultural colonization processes, just like illicit crops; in both cases, they serve as tools to add value to initially marginal lands. Moreover, the primary tool to confirm and quantify the relationship between armed conflict and cattle is the measurement of deforestation rates: it has been demonstrated, through measurements of a specific area's carbon storage capacity, which is a characteristic of forests, that during the expansion of

the agricultural frontier in each region, the intensity and quantity of armed or violent conflicts intensify as carbon sequestration rates decline. On the other hand, when colonized areas have consolidated, violence rates decrease, and the climate impact rises because carbon sequestration rates are low, and economic activities generating greenhouse gases (such as cattle ranching) have been introduced.

It is evident that victimizing events found in the database of this study, such as cattle theft, violent attacks on productive and commercial activities and infrastructure related to cattle, aerial glyphosate spraying, and armed conflicts in which ranchers and their cattle were involved, have affected the productivity of the cattle industry. However, these elements have not been considered from a historical perspective in the socioeconomic analyses conducted on the subject (Gumucio et al., 2015; Arora et al., 2017; Charry et al., 2018; Triana Ángel and Burkart, 2019; Burkart et al., 2021; Enciso et al., 2021a,b; Pirela Ríos et al., 2022). Armed conflict in Colombia often intersects with competition over land and natural resources, including water and pasturelands essential for cattle ranching. Climate change-induced resource scarcity could exacerbate these conflicts. Also, understanding how climate change impacts cattle productivity, water availability for cattle, and overall food production is crucial. Advances in agricultural technologies, such as climate-smart agriculture and precision farming, offer potential solutions to mitigate climate risks and improve food security. Future studies should assess the feasibility and effectiveness of these technologies within the context of Colombia's cattle ranching industry and consider their socioeconomic implications for different stakeholders, but also examine how environmental stressors linked to climate change contribute to conflict dynamics and identify strategies to mitigate conflict risks.

Therefore, this article serves as a call to other researchers to explore the connections between this field of study and historical-political initiatives that emphasize the intrinsic relationship between cattle, land tenure, and armed conflict in Colombia. While the data presented in this database review is limited and insufficient for broad conclusions about these relationships, it exemplifies how to delve into Colombia's history of armed conflict and cattle ranching development as two deeply intertwined facets of the same issue. This will lead to a better understanding of how to enhance the sector's productivity in the contemporary world, especially considering the transitional process in which the country has been immersed since 2016, thanks to the Peace Agreements with the FARC-EP.

5.2 A look at Africa

The fact that the history of Colombian cattle ranching reveals even more gaps than the history of armed conflict requires looking to foreign experiences on how livestock productivity is affected in conflict scenarios. Several African countries provide interesting data. While one of the essential characteristics of African conflicts related to livestock—tensions between nomadic or semi-nomadic cattle herders and land-owning farmers—is not present in the territory and history of Colombia, it is clear that other characteristics are similar, and their study and analysis provide tools

for a better understanding of the subject. The African example not only confirms that in armed conflict contexts, livestock production follows different logics than productivity but also demonstrates that the deep-rooted violence stems from inequalities and disputes over land tenure, as well as the weak presence of the state.

An analysis of livestock policies in several East African (Ethiopia, Kenya, Uganda, and Tanzania) and West African (Burkina Faso, Mali, and Senegal) countries reveals that these policies have been oriented very little toward ensuring that land tenure is in the hands of farmers and herders (Pica-Ciamarra et al., 2007). Insecurity in land tenure leads to problems such as an increase in the animal population, which can result in overuse of the land, contributing to resource scarcity and even issues of food sovereignty. It also leads to inefficiency in production and leaves few defenses against climate-related problems or price fluctuations. Livestock ownership becomes more a matter of security (against potential future problems and crises) than efficient production. Despite 60% of people in poverty in Africa relying on livestock, the current and growing demand for meat and milk has not brought improvements for them because production does not meet the demand, and several countries even import these products. The increase in livestock numbers, which does not translate into increased productivity, exerts more pressure on the land and, therefore, a greater potential for tension over scarce resources, in other words, more conflict. This is particularly observed in Ethiopia, Sudan, Mali, and some areas of Senegal, Somalia, and Kenya (Pica-Ciamarra et al., 2007).

Another interesting case regarding the conditions of cattle and other livestock can be found in the South Kivu region of the Democratic Republic of the Congo in the post-conflict period. Maass et al. (2012) analyze how the low number of cattle on small family farms (the predominant form of production and land tenure in the region) is a consequence of recent armed conflicts. Farmers prefer smaller animals, and cattle breeding is oriented toward survival, anticipating future crises, and generating income for children's education.

On the other hand, studies conducted in the Horn of Africa region are based on the premise that violent conflicts in this area represent a failure at multiple levels of social and institutional interactions, primarily concerning governance, state-citizen relations, and resource allocation policies (Pavanello and Scott-Villiers, 2013). The authors delve into the obstacles to achieving lasting peace in the livestock grazing areas of this region, some of which have fragmented governance systems, weak civic engagement, or negative attitudes toward pastoral activities. While this research finds examples of successful peace consolidation at certain levels, solutions almost never take a holistic approach that addresses the structural causes, and therefore, fail to achieve the goal of stable peace.

In the attempt to propose solutions to these conflicts, experiences in Nigeria illustrate how the cultivation of forage crops, such as those from the *Urochloa* (syn. *Brachiaria*) genus or *Megathyrsus maximus* (syn. *Panicum maximum*), can significantly aid livestock production and minimize conflicts between semi-nomadic herders and farmers (Mwendia et al., 2018). However, despite efforts in various African countries, conflicts between farmers and herders have increased exponentially in recent years. Preexisting violent conflicts have been compounded by organized

crime and corruption, eventually becoming matters of national security. This combination of elements is starting to solidify a system of war, as the emergence of uncontrolled local armed groups, significant conflicts between ethnic groups, the inability of regional governments to control peripheral areas, and the growing politicization of conflicts indicate a highly conducive environment for the emergence of insurgent movements (Cline, 2020).

While the armed conflict in Colombia has not presented large-scale situations of food insecurity, its direct connection to deforestation and non-productive or inefficient practices in livestock and agriculture serves as a warning for the future and becomes a signal to prevent crises that have been seen in Africa. There are several ways in which armed conflicts affect food security: they destroy crops, livestock, agricultural infrastructure, and assets; disrupt food supply chains and increase prices due to difficulties in accessing markets or transportation; induce displacement and create fear and uncertainty about meeting future needs; and generate political instability (Dago, 2021). In a cyclical manner, food insecurity can trigger violence and instability, especially in areas with significant inequalities and weak institutional presence (Dago, 2021).

Urgent actions need to be taken by governments in relation to these issues and the current scenario of climate change. Social conflicts must also be analyzed with the variable of environmental degradation, from an interdisciplinary and innovative perspective (Nguyen et al., 2020). Climate change exacerbates pre-existing social conflicts, including disease, insecurity, death, and hunger. Lessons from the African context should be considered in Colombia to avoid repeating mistakes that have already been made in these countries, where the lack of modernization in livestock farming, resource degradation, land disputes, and violence form a spiral of situations can exacerbate the existing issues of social and economic inequality among their populations.

6 Conclusions

It seems that depending on the sources and archives consulted, a different story can always be written, and that the silences loudly speak about what has not yet been fully resolved or learned in all its complexity. This cacophony of voices and memories represents, in sum, not only the history of the internal armed conflict in Colombia but also the history of cattle ranching itself and its participation and agency in the struggle for territory, the expansion of the agricultural frontier, scientific and economic discourses about tropicalism, and the exponential growth of markets, among other factors. Vital for the survival of thousands of rural families, potential to empower women and young populations, traditional ways of production, and central in Colombian cultural customs, cattle ranching has always been at the heart of all kinds of political, economic, and environmental disputes: for land and water, domestic markets, the colonization of public lands, the accumulation of large estates, associations and guilds as symbols of community work, and yes, also at the very core of the war in Colombia.

In many undeniably useful ways, this story has only been partially told so far. For the most part, it seems like we are witnessing a black and white narrative with victimized populations and victimizers on either side of the equation, where individual

agency and personal experiences have been blurred or have yet to be heard. It is true that the story that has been told about the link between cows, pastures, and war almost naturally follows its teleology: it could not be any other way. The systematic silencing of dissenting voices, imperfect and problematic peace processes and demobilizations, and the lingering fear in rural areas of Colombia have made it difficult to obtain a proper historical assessment. It could be said that the exercise has only just begun and is on the right track. While much is known about cattle ranching and its economic potential and transformative power for producing families throughout Colombia and Latin America, there is a constant search for new and better ways to produce meat and milk, who is involved in the process and how. The history of cattle ranching practices has been relatively underexplored, and there is still much to learn from somewhat older historiographies where the multiple, conflicting, and complex nature of the cattle ranching profession reflects its richness and endurance over time.

Historically, it can be stated that cattle ranching in Colombia has developed far from the logic of productivity. The first obstacles can be traced back to the mid-twentieth century when attempts were made to establish productive cattle ranching but encountered challenging geography, limited access routes, and educational and technical deficiencies. Subsequently, starting in the 1960's when the armed conflict in Colombia began, a genuine war system started to take root with increasing strength (at least until the signing of the latest peace agreements). This war system distorts efficiency in the management of cattle production in various ways.

It is already evident that if Colombia does not manage to resolve fundamental issues related to land tenure and the presence of the state in the peripheries of its territory, violence will persist, and the war system will endure, preventing the transition to productive cattle ranching. The need for productive cattle ranching is urgent in times of climate change, which demands efficiency and sustainability. For these reasons and in pursuit of these goals, it is necessary to fully understand the complexities of cattle productivity: how to improve it, make it sustainable, and thus benefit the rural populations suffering from severe inequality. It is also crucial to elucidate the problematic and undeniable connections between large-scale cattle ranching and the actors of war. But even more important is that both narratives are integrated, that they converse with each other, that they intersect to achieve a plausible transformation (or preservation) of the ways of life of a vibrant and age-old cultural practice that deserves much more than gray photographs, sharp divisions between good and bad, or silent stories that fail to capture its constant evolution and inherent multiplicity.

Data availability statement

Data will be made available upon reasonable request. Requests to access these datasets should be directed to: n.triana@cgiar.org.

Author contributions

NT: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources,

Supervision, Validation, Writing – original draft, Writing – review & editing. MP: Formal analysis, Resources, Writing – original draft, Writing – review & editing. SB: Funding acquisition, Project administration, Supervision, Writing – original draft, Writing – review & editing.

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