

Tangara, Mahamadou Bassirou

Working Paper

The effects of armed conflicts on local economic dynamics in the Mopti and Ségou regions of Mali

WIDER Working Paper, No. 2024/53

Provided in Cooperation with:

United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: Tangara, Mahamadou Bassirou (2024) : The effects of armed conflicts on local economic dynamics in the Mopti and Ségou regions of Mali, WIDER Working Paper, No. 2024/53, ISBN 978-92-9267-515-8, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki,
<https://doi.org/10.35188/UNU-WIDER/2024/515-8>

This Version is available at:

<https://hdl.handle.net/10419/302278>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WIDER Working Paper 2024/53

**The effects of armed conflicts on local economic
dynamics in the Mopti and Ségou regions
of Mali**

Mahamadou Bassirou Tangara*

August 2024

Abstract: Armed conflicts significantly affect the social and economic conditions of societies in turmoil, disrupting the normal functioning of local economies. This study seeks to delve into the repercussions of armed conflicts on the dynamics of local economies in Ségou and Mopti, Mali, since the conflict outbreak in 2012. Employing a case study method, the research utilizes field observations and in-depth interviews with various stakeholders, including residents, displaced individuals, local authorities, former hostages, herders, farmers, traders, officials, and members of non-governmental organizations. The examination of the Ségou and Mopti cases underscores how armed conflicts have disrupted local production processes and curtailed population consumption patterns. Notably, weekly fairs, pivotal for economic exchanges, have been either prevented or abandoned by the populations. Additionally, farms face restrictions, with cultivation prohibition or intentional burning upon maturity. These findings contribute valuable insights into the nuanced effects of armed conflicts, cautioning against oversimplified generalizations derived from more aggregate analyses. The study sheds light on the intricacies of the local responses to conflict-induced economic challenges, offering a deeper understanding of the complexities involved.

Key words: armed conflicts, Mali, economic dynamics, West Africa, production processes, social impact, economic disruption

JEL classification: D47, O12, R11, O55

Acknowledgements: This publication was made possible by support from the African Peacebuilding Network of the Social Science Research Council, with funds provided by the Carnegie Corporation of New York. I would like to thank Amy Niang, Associate Professor at The Africa Institute, UAE, for her invaluable advice throughout this fellowship. Special thanks to Beidary Traoré, PhD candidate at Université de Ségou, Mali, for his collaboration during data collection; Hamidou Sacko, research assistant at Laboratoire des Techniques et de l'Observation de la Terre (LTOT) at FHG Bamako, for his help with the maps; Aymar Nyenyezi Bisoka, Professor at Université de Mons, Belgium, for his insightful comments; and Tarila Marclint Ebiede, coordinator of CORN West Africa, for his feedback.

This working paper is the result of a collaboration between UNU-WIDER and Conflict Research Network West Africa ([CORN West Africa](#)).

* Université des Sciences Sociales et de Gestion de Bamako, Bamako, Mali, mb.t75@mesrs.ml

This study has been prepared within the UNU-WIDER project [Breaking cycles of fragility](#), which is part of the research area [From conflict to cohesion – pathways for peace and inclusive statebuilding](#). The project is part of the [Domestic Revenue Mobilization](#) programme, which is financed through specific contributions by the Norwegian Agency for Development Cooperation (Norad).

Copyright © UNU-WIDER 2024

UNU-WIDER employs a fair use policy for reasonable reproduction of UNU-WIDER copyrighted content—such as the reproduction of a table or a figure, and/or text not exceeding 400 words—with due acknowledgement of the original source, without requiring explicit permission from the copyright holder.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-515-8

<https://doi.org/10.35188/UNU-WIDER/2024/515-8>

Typescript prepared by Mary Boss.

United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

The views expressed in this paper are those of the author(s), and do not necessarily reflect the views of the Institute or the United Nations University, nor the programme/project donors.

1 Introduction

The proliferation of global conflict resolution and research institutions, highlighted by Rashid and Niang (2021), has led to extensive studies on armed conflicts' typology, causes, and manifestations (Collier and Hoeffler 2004; Walther et al. 2017). Despite abundant documentation, a significant gap persists in understanding the nuanced local contexts of armed conflicts. The prevailing assumption in conflict resolution emphasizes the state's violent monopoly as crucial in quelling cyclical conflicts, leading to a dominant stabilization approach prioritizing the reinforcement of this monopoly through a robust, militarized security architecture (Lake 2022). This emphasis transcends various traditions in political science, with rationalists emphasizing its impact on rebellion costs, institutionalists highlighting its role in fostering predictable behaviour, and constructivists underlining its influence on norms surrounding violence. Peacebuilding missions, from this perspective, prioritize state building through institutional and security-sector capacity building (Lake 2022), regardless of local economic dynamics in armed conflicts (Vignal 2018). In such conflict zones, social reproduction in everyday life is intricately linked to uncertainty, violence, and the deterioration of both material and social environments for individuals and state institutions. Furthermore, the complexities of revenue collection from populations in conflict zones remain a less explored aspect (Krauser 2020).

This article, employing ethnographic and interview-based methods, aims to deepen the understanding of wartime economies (Marchal 1997), focusing on the daily social reproduction marked by uncertainty, violence, and the breakdown of the material and social environment (Vignal 2018). The study conducts a comprehensive analysis of the situations in the Mopti and Ségou regions of Mali. In these regions, armed conflict has led to significant disruptions, with armed jihadist groups gaining control over multiple localities (Sandor and Campana 2019; Poudiougou 2024a). These groups coerce local populations through violence and alternative governance models, intensifying the crisis of legitimacy for the Malian state. The article examines how jihadist groups exploit translocal and transnational connections, revealing economic repercussions in Mopti and Ségou. The study emphasizes the contraction of economic scales due to violence, destruction, activity prohibition, and mobility constraints.

The central argument of this article is that local economies, both internally and externally, face disruption under conflict conditions. Examining the nature of attacks, the involved actors, and their motives reveals the complexity and multiplicity of armed conflicts. Formal clashes between armed groups and the state represent just one facet of conflict, with war often characterized as a 'war of the everyday'. In this context, the conflict extends beyond the mere production of violence, affecting every aspect of the population's lives and manifesting itself in direct or indirect adversarial encounters with the state and its security structures. Interactions with armed groups, whether controlling certain areas or not, have varied effects on the population, influencing their opinion on state-provided goods and services and individual relationships with state agents and citizens (Karim 2020). In some instances, the role of the state in the region is widely perceived as negative by populations in conflict zones (Jourde et al. 2019).

However, existing literature on armed conflicts in Africa often formulates general conclusions by considering factors such as the number of countries in conflict and casualties (Hugon 2001), the causes of conflict (Laville 2019), economic drivers of conflict (Bazzi and Blattman 2014), conflict resolution, issues of temporal inconsistency, and commitment (Adam and Sekeris 2019; Sun et al. 2019), ideology and armed conflicts (Leader Maynard 2019), and the violence trap and development (Cox et al. 2019). These discussions tend to oversimplify or overlook the contextual nuances that contribute to these conflicts (Bisoka et al. 2024). Most research on the economic

dimension of conflict has primarily focused on establishing causal relationships between the economy and conflict, and the war economy, studying consequences such as deaths, financial costs, and arms and drug trafficking (Vignal 2018). While these consequences are undoubtedly critical, there is a need for greater attention to the contextual factors surrounding the occurrence of conflicts in the realms of peacebuilding and conflict studies. These contexts provide crucial insights for a more profound understanding of the drivers behind conflicts. Therefore, understanding how armed jihadist groups influence and reshape local economies during times of conflict in the Mopti and Ségou regions of Mali becomes crucial. This question addresses critical aspects related to the impact of armed jihadist groups on local economies during conflict, providing information essential for humanitarian efforts, security considerations, policy formulation, community resilience, conflict prevention, and a broader understanding of international relations in the affected regions.

In this paper, the term ‘armed conflict’ refers to a type of conflict extending beyond simple disagreements (e.g., economic, political, social) and involving violent and armed confrontations resulting in death (Rosière 2011). The empirical documentation involved engaging with inhabitants, displaced persons, local authorities, former hostages, herders, farmers, traders, officials, and members of non-governmental organizations (NGOs) between September 2021 and February 2022.

The subsequent sections of the paper are structured into four components. Section 2 offers a concise overview of the economic ramifications associated with armed conflict and examines the interconnections between war economies and the ongoing economic activities occurring in conflict-ridden settings. Section 3 encompasses the contextual backdrop, details on data collection, and the methodology employed in the case study. Section 4 delves into an analysis of how the dynamics of local economies are shaped during wartimes. Ultimately, Section 5 serves as the conclusion to the paper.

2 Economic dimensions of conflict: bridging war economy and economy in wartimes

The economic analysis of conflicts initially centred around theoretical work and gradually evolved into robust empirical literature. While the current body of literature on the economics of conflicts is substantial, it has predominantly focused on macro-level data. Menuet et al. (2019) argue that a major challenge in the economic analysis of conflicts lies in analysing it at the local level using disaggregated data. To achieve a comprehensive understanding, it is essential to incorporate qualitative and mixed research within a multidisciplinary methodological approach.

Furthermore, research on the economic dimension of conflict has primarily concentrated on two aspects: 1) the causal relationship between the economy and conflict, and 2) the war economy (Vignal 2018). Consequently, the transformation (or lack thereof) of local economies during armed conflict has received minimal attention in the economic literature on conflict. Historically, conflict was considered a simple parameter in economic models, gaining prominence as an entire field of investigation in economic analysis over the 20th century (Menuet et al. 2019). In the history of ideas, conflict gradually increased in importance. In the 19th century, conflict—whether armed war, a strike, or revolution—was perceived as ‘antagonism between individuals or groups of individuals in society’ (Menuet et al. 2019: 4), with the composition of these groups seen as exogenous to the economy. The Marxist tradition, however, viewed group membership as stemming from an individual’s position in the production process, leading to the absence of a distinct conflict theory. This perspective was rooted in the belief that a theory of conflict was intrinsically linked to the broader issue of the capitalist mode of production. However, at the onset

of the 20th century, a microeconomic vision of conflict (Pareto 1909) emerged, challenging the Marxist interpretation.

Since the 1990s, the field of conflict economics has evolved into a distinct sub-branch of economics, marked by seminal works such as by Grossman and Kim (1995) on the 'general equilibrium of resource allocation between appropriative and productive activities', Hirshleifer (1995) on the economic foundations of conflict theory, and Skaperdas (1992) on the contested allocation function. Initially, the economic analysis of conflicts aimed to comprehend why costly conflicts arise when achieving the same resource distribution peacefully is conceivable. Various explanations for this puzzle were proposed, including information asymmetry, the non-divisibility of resources, and commitment problems (Fearon 1995). However, Powell's (2006) meticulous analysis of conflict causes ultimately concludes that all roots of conflict can be traced back to a problem of commitment.

Recent developments in conflict literature underscore that conflict and violence pose significant obstacles to human, social, and economic development (Brück et al. 2013; Mercier et al. 2020). The impact of conflict on development manifests in diverse ways, both direct and indirect, affecting populations at macro and micro levels (Brück et al. 2010). Exposure to conflict is further shaped by gender, political views, and social and economic status (Brück et al., 2010). Conflict undermines development by fostering political and institutional instability (Fearon and Stanford 2003; World Bank 2011), leading to the destruction of essential economic and human capital vital for overall economic and social development. Additionally, conflict establishes a negative legacy (Justino 2011; León 2012) and contributes to the exacerbation of poverty, trapping populations in chronic impoverishment (Goodhand 2001). Countries may fall into conflict traps (Hegre et al. 2011), impeding development and causing a substantial increase in economic and social inequalities (Mercier et al. 2020).

Despite the wealth of literature on the economics of conflicts, several challenges persist in light of recent armed conflict developments. One significant challenge is comprehending the dynamics of the local economy during armed conflicts and understanding how new agencies (non)transform them. In this context, it is crucial to differentiate between the economy of conflict and the economy during times of conflict (Marchal 1997). The theory of war economy elucidates the mechanisms that make conflict possible and replicable. This theory provides insights into the economic structures that sustain conflict on a global scale. Consequently, a significant portion of research on the economic dimension of conflict has leveraged war economy theory to investigate the causal relationship between the economy and conflict. From this perspective, the focal point is understanding how the economy acts as a driver of conflict. This enquiry aims to discern the determinants of conflict through a macroeconomic lens. In the context of a war economy, violence emerges as a primary means of economic accumulation, often achieved through control of resources, taxation, and extortion (Vignal 2018).

The theory of the war economy, while insightful, lacks a comprehensive examination of the evolution of economic and social activities during conflict. In other words, it doesn't delve deeply into how societies at war sustain themselves economically and socially. This specific dimension of conflict analysis is addressed by the theory of the economy in war, providing a more nuanced understanding of the economic and social transformations that occur during times of conflict (Vignal 2018). The challenge lies in comprehending the practices, mechanisms, and interactions among economic stakeholders, the population, and social groups within a conflict environment. Thus, it is crucial to maintain the distinction between the war economy and the economy in war, while simultaneously recognizing the connections between them. As stated by Vignal (2018), despite the evident links between these two dimensions, differentiating them prompts a broader consideration of changes in the conditions of social and economic reproduction during periods of

conflict. This distinction also facilitates an understanding of the underlying logic of social and economic resilience amidst the chaos of destruction, the breakdown of collective frameworks, and the influence of partisan, military, or militia logic (Vignal 2018: 47).

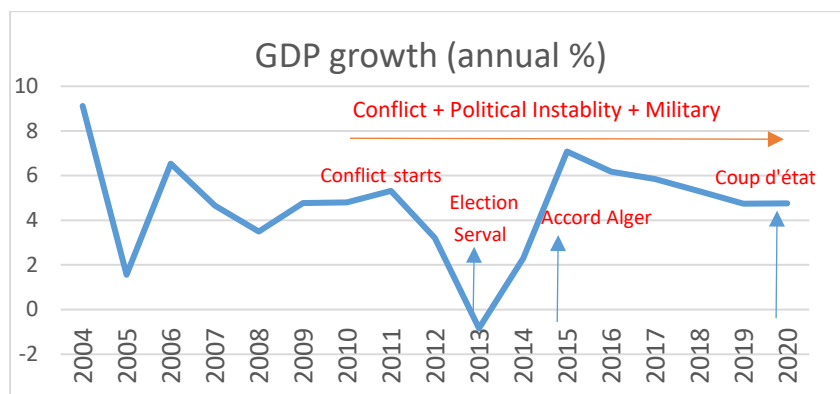
Empirically, conflict exhibits significant heterogeneity, varying from localized to diffuse and momentary (conjunctural) to long-term (structural) (Rosière 2011). This paper specifically addresses armed conflict, extending beyond mere disagreement to encompass violence and armed confrontation resulting in casualties over time. Armed conflicts, with their inherent violence, not only contract the economic scale but also disrupt the continuity of economic spaces, markets, and production circuits and the fluidity of individual choices (Vignal 2018). However, certain economic agents demonstrate adaptability to war conditions, as observed by Vignal (2018) in the case of Syria. This phenomenon of habituation and adaptation to war was also noted earlier by Beck (2012) in the context of Angola. Informed by the theory of the economy in wartime, this article seeks to address the following question: How do armed jihadist groups influence and reshape local economies during times of conflict in the Mopti and Ségou regions of Mali?

The choice of the Mopti and Ségou regions for this study is grounded in their significance to the national economy and their firsthand experience with armed conflicts. These regions play a pivotal role in Mali's economic landscape, particularly in agriculture, breeding, and fishing, which are vital sectors for the country. For instance, Ségou contributes approximately 30% to agricultural production, and Mopti ranks first in breeding, accounting for 28% of the national livestock. Moreover, these regions have witnessed a higher frequency of clashes between the Malian Armed Forces and armed groups, as well as terrorist attacks against the population, compared to other parts of the country. In addition, existing studies on armed conflicts in Mali have primarily focused on their effects on the population (Tobie and Sangaré 2019), simplistic narratives regarding conflict causes (Benjaminsen and Ba 2021), jihadism (Tounkara and Gaye 2019), and the economy of violence (Chebli 2022). Therefore, an examination of the dynamics of the local economies in these regions offers valuable insights into the impact of armed conflicts on economic activities.

3 Context, background, and data collection

On a global scale, the sustainability of Mali's economy appears to be diminishing over time. One crucial indicator of a country's economic performance is its economic growth rate. The declining trend in Mali's growth rate, as illustrated in Figure 1, indicates that the national economy is facing challenges and is not faring well over the years.

Figure 1: GDP growth, 2004–20

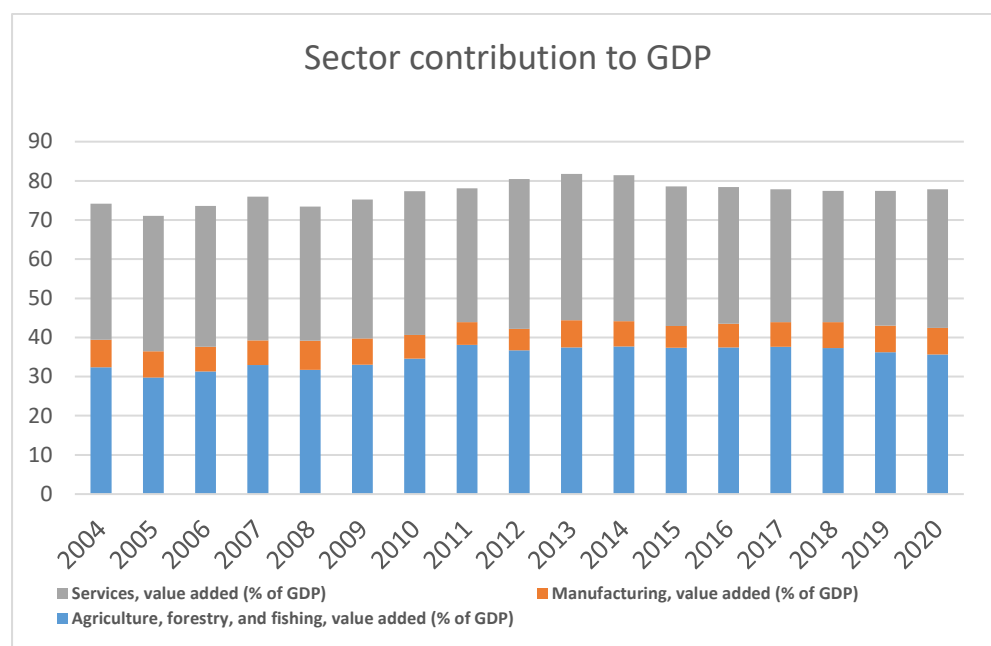


Source: author's illustration based on data from World Development Indicators (WDI), World Bank (2023).

A noticeable decline is observed from 2010, reaching its lowest point in 2013, just after the onset of the conflict in 2012. It is essential to acknowledge that the country was already grappling with early signs of conflict, marked by pockets of rebellion in certain northern regions, such as Kidal. While the conflict is not the sole factor explaining the poor performance of the Malian economy, its onset has added instability, with a downward trajectory evident since 2015. Nevertheless, there have been sporadic moments of recovery, primarily influenced by events like presidential elections, the Algiers Agreement (peace agreement: *Accords d'Alger*), and military expenditures associated with various interventions. Through the transmission mechanism, these factors have exerted a positive impact on economic activity, offering some relief amidst the conflict's challenges. Despite these intermittent positive developments, the macroeconomic context characterized by conflict, political instability, and military intervention has led to a general downward trend in economic growth in Mali since 2012.

Beyond economic growth, examining the sectoral contributions to gross domestic product (GDP) offers valuable insights into a country's economic performance. The following graph illustrates the evolution of key sectors—agriculture, industry, and services—in terms of their contribution to GDP, measured as a percentage of value added.

Figure 2: Economic sector's contribution to GDP in Mali, 2004–20



Source: author's illustration based on data from WDI, World Bank (2023).

It is evident that the agricultural sector, alongside the service sector, makes the most significant contribution to GDP. The contribution of the agricultural sector to GDP has plateaued at around 30%, with a declining trend since 2012. In terms of importance, the industrial sector is marginal, making the Malian economy predominantly reliant on the agricultural and service sectors. The overall economic performance reflects the dynamics of local economies.

To delve into the dynamics of local economies in Mali during times of armed conflict, a case study is conducted in Ségou and Mopti. These two regions share several economic characteristics and have been among the regions most affected by armed conflict since 2012. Ségou, being a rural region, has an economy primarily characterized by agriculture, livestock, fishing, and trade. In addition to these main activities, other sectors like handicrafts, industry, and tourism have also developed. The agricultural sector, focusing on cash crops (cotton, peanuts, and sugar cane), food

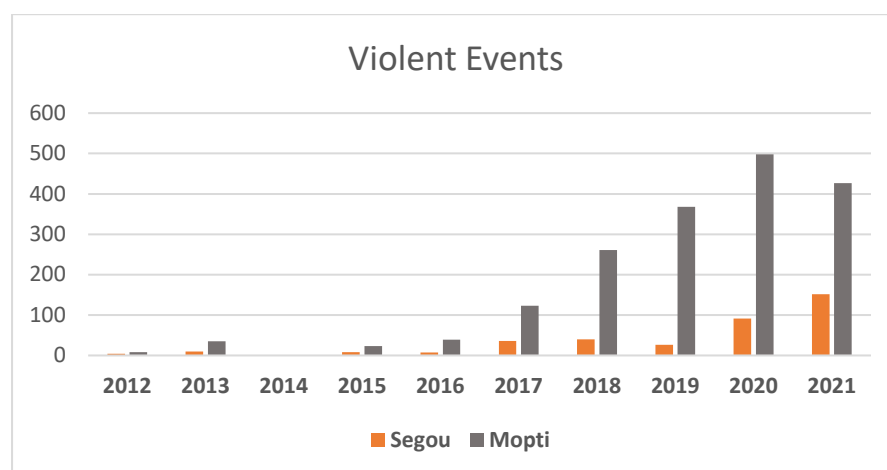
crops (rice, millet, sorghum, and corn), market gardening, emerging crops, and arboriculture, employs approximately 80% of the active population. Food crops, particularly dry cereals and rice, account for 99.4% of the sown area. The Ségou region contributes about 30% to national cereal production, including millet, sorghum, and rice.

Livestock breeding, engaging more than 80% of the population, plays a pivotal role in the local economy of Ségou. It serves as a significant source of income for numerous households and contributes to food security in the region. In conjunction with agriculture and breeding, fishing constitutes the third pillar of the local economy in Ségou. The practice of fishing is facilitated by the presence of several rivers, including the Niger River, and various irrigation canals. Activities such as trade, tourism, and transport in Ségou are also significant (see figure on page 59 in Ouattara et al. 2020, which illustrates the economic structure of Ségou, categorized by activity based on community perceptions). Trade, characterized by a system of weekly fairs, involves a distribution circuit comprising licensed traders and a traditional sector marked by small-scale, generally informal, trade. The primary products traded include cereals (millet, sorghum, and rice) and livestock across almost all markets.

The characteristics of the local economy in Mopti are not vastly different from Ségou's economy in terms of activities. Like Ségou, agriculture and breeding are crucial components of the local economy in the Mopti region. Mopti holds the top position in Mali for cattle and sheep numbers, accounting for 28% of the country's cattle, 18.44% of sheep, and 19.09% of goats (Mopti; PDSEC 2017). Another fundamental activity in Mopti is fishing, contributing to an annual fish production ranging from 70,000 to 120,000 tons (Ouattara et al. 2020). For details on the local economy structure of Mopti, see figure in Ouattara et al. (2020: 151).

Prior to the crisis, handicraft activity was thriving, as outlined in 'Socio-Economic Diagnosis of the Regions of Central Mali' (Ouattara et al. 2020). Tourism in the Mopti region played a vital role in job creation and stimulated investment and support for local services. However, insecurity has significantly dampened the momentum in this sector (Ouattara et al. 2020). Both Ségou and Mopti have been severely affected by armed conflict, witnessing confrontations between the Malian Armed Forces and armed groups. Additionally, these regions have been subjected to numerous terrorist attacks against the civilian population. The Armed Conflict Location & Event Data (ACLED) database identifies various event types in these regions, with the primary ones being fighting, explosions, and attacks against civilians (Raleigh et al. 2023). Figure 3 provides a summary of the evolution of violent events in Ségou and Mopti from 2012 to 2021.

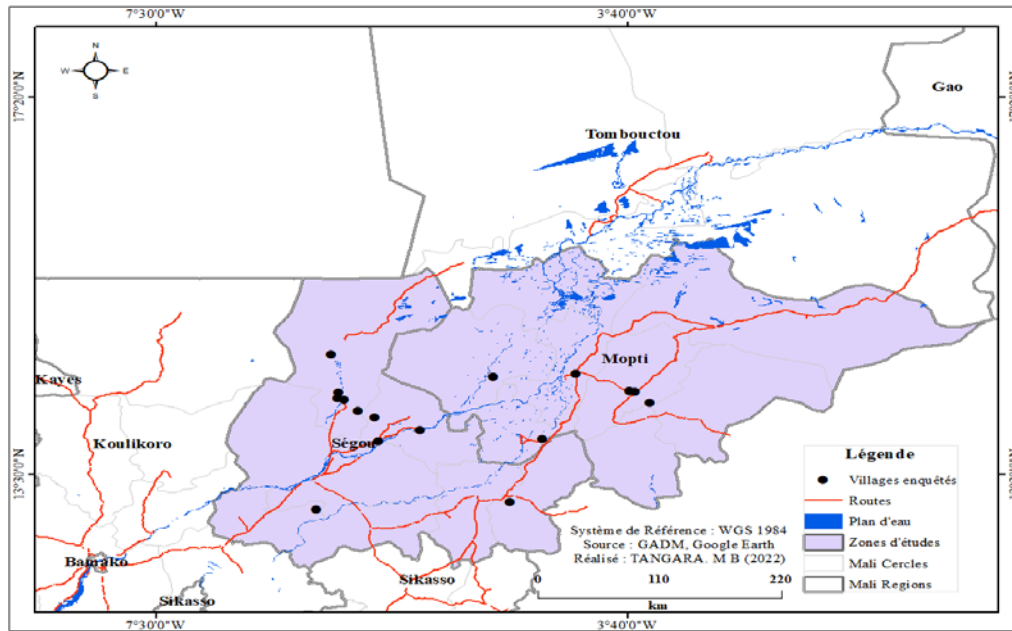
Figure 3: Evolution of violent events in the regions of Ségou and Mopti



Source: author's illustration based on data from the ACLED (2022).

Based on the number of violent events, a discernible shift in the conflicts within these regions is evident. The ACLED database reports a total of 2,224 violent events in the Ségou and Mopti regions alone since 2012. Consequently, these regions are among the most severely affected by armed conflicts, justifying my selection for a case study. Over a period of six months, I collected data in several localities in Ségou and Mopti through in-depth interviews and field observations. The total number of respondents exceeded 200, representing a diverse range of individuals, including farmers, NGO employees, armed group members, former hostages, doctors, traders, herders, artisans, traditional chiefs, teachers, and dozo leaders. The localities covered by the data collection are listed on the accompanying map in Figure 4.

Figure 4: Data collection map



Source: author's illustration based on GADM and Google Earth. Reference system: WGS 1984.

I specifically focused on localities that either have been attacked or are under the control of armed groups. As a result, data were collected in 10 localities in the Ségou region (Ségou, Niono, Mariko, Cocody, Dogofry, Kolongo, Macina, Trauma, Toridagako, and Farabougou) and in six localities in the Mopti region (Mopti, Bandiagara, Bankass, Doucombo, Dioundjourou, and Sevaré). Given the sensitivity of the subject, an initial period of over two months was dedicated to field observations. This allowed for closer engagement with various actors, understanding the realities of diverse communities and gaining insights into their behaviours, actions, living conditions, and the economic interests that connect or diverge among them. Building a sense of trust with these actors was crucial to facilitate collaboration and obtain valuable information.

4 Local economy dynamics in Ségou and Mopti

The overall environment in the central regions of Mali has been significantly influenced by violence perpetrated by armed groups. The presence of these armed groups is predominantly manifested through the production of violence, which, in turn, reveals the social and economic realities shaping the daily lives of the population. Recognizing the interconnectedness of security and political dynamics (Brück et al. 2013) and comprehending the dynamics of the local economy in a conflict context necessitates consideration of the specificity of practices, mechanisms, and interactions developed by stakeholders. This complexity underscores the realities of societies

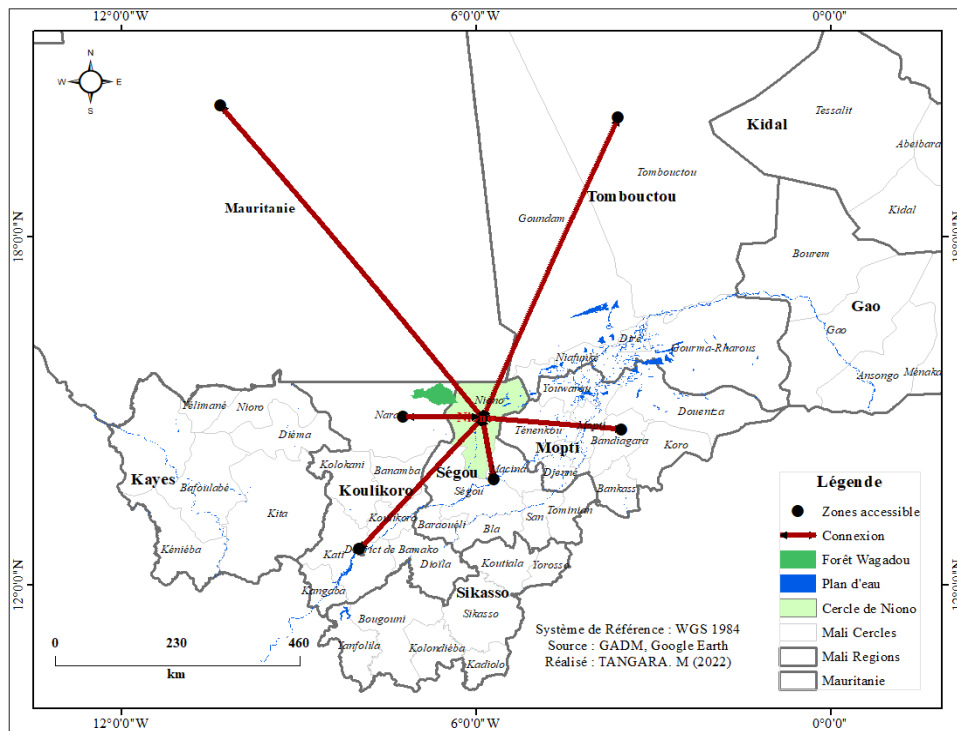
ravaged by war and conflict. Neglecting or oversimplifying this complexity may contribute to the shortcomings of liberal peace theory (Cravo 2018). Consequently, through the lens of the cases in Ségou and Mopti, I delve into the intricacies of the local economy.

4.1 Translocal and transnational connection and economic windfall

The strategic geographical positioning and economic potential of the Ségou and Mopti regions have made them focal points for armed groups, resulting in a higher incidence of armed conflicts compared to the rest of the country. Niono and Bandiagara, the central cities of Ségou and Mopti, respectively, exemplify this strategic significance. Bandiagara, situated on the Plateau Dogon, serves as a crucial link for trade between major towns in Mopti. Moreover, it acts as a connecting point between Mopti and neighbouring countries like Burkina Faso and Côte d'Ivoire, facilitating the exchange of livestock and essential goods. Burkina Faso supplies a variety of items to Bandiagara's market, while livestock from Fatoma and Douentza, the two largest livestock markets in Bandiagara, are exported to Côte d'Ivoire. Bandiagara's economic significance is further underscored by its bi-weekly fair (on Mondays and Fridays), playing a pivotal role in product circulation and facilitating the movement of people and goods. The market of Bandiagara holds a central position in regulating the trade circuit of Mopti's economy, highlighting its economic importance.

Similar to Bandiagara's significance in Mopti, Niono plays a pivotal role in the economy of Ségou. Recognized for its extensive rice production, Niono is a crucial zone socially and economically. Notably, the presence of the '*Office du Niger*', one of the largest irrigated areas in West Africa, contributes to the well-developed agriculture in Niono. In addition to agriculture, the practice of livestock and fishing is prominent. Niono also stands out for its sugar cane production and the growth of sugar industries. Apart from its role in production, Niono serves as a connection point between Ségou and various regions in Mali, including Mopti, Timbuktu, and Koulikoro. Moreover, it establishes a link between Mali and Mauritania, providing Niono with a strategic position in terms of goods circulation, supply and demand, and accessibility to different localities within the country. For example, Niono facilitates access to almost all villages in Ségou located on the left bank of the Niger River. Unfortunately, these uncontrolled connections between Niono and other regions of Mali or neighbouring countries contribute to illicit trade and the movement of armed groups, as illustrated in Figure 5.

Figure 5: Connections and trade circuit from Niono



Source: author's illustration based on GADM and Google Earth. Reference system: WGS 1984.

Armed conflict in Mali has undergone a gradual shift, moving from Tombouctou, Gao, and Kidal to Mopti and Ségou. As a result, Niono and Bandiagara have witnessed the presence of armed groups, including jihadists and self-defence militias, along with attacks on the population. A resident of Bankass recounts an attack on her village:

(...) around 9 p.m., we heard gunfire from all directions, but we were unsure of the situation. Suddenly, armed men invaded our village, and everyone tried to escape as best they could. This attack resulted in three deaths, including a man and two elderly women who had stayed in the village. Our houses and huts were set on fire, leading to substantial material damage (e.g., motorcycles, TVs), and even livestock were taken away. It was only after the attack that the army arrived in the area (restaurant owner, Bankass, September 2021).

This narrative is common to several localities in Niono and Bandiagara, marked by destroyed villages, burned fields and houses, and stolen livestock. This recurring landscape of attacks defines the daily life of local populations in Ségou and Mopti. In Bankass, both dozors and jihadists are accused of carrying out attacks against entire villages. These assaults on the population have resulted in significant damage: the destruction of property, loss of human life, and abduction of animals. A displaced person in Bandiagara elaborates on the aftermath:

We did not know these people. We could not identify them, and we did not even attempt to identify them because we were seeking refuge amid the chaos of weapons and gunfire. We fled to Doucombo, and some even went as far as Bandiagara (...). Before our village, in June 2019, the village of Djombo-Djennenké, located 3 km from Doucombo, was attacked by unidentified armed men. This attack resulted in five deaths, including four women, and the burning of houses, with animals being taken away (displaced, Bandiagara, September 2021).

The tactics employed in these attacks reveal a recurring pattern, characterized by surprise assaults that leave the targeted population defenceless and devoid of any means to identify the assailants. The use of incendiary methods serves to sow chaos and panic, compelling the community to hastily flee in a desperate bid for survival. Across the regions from Mopti to Ségou, a grim uniformity emerges in the aftermath, with villages left in ashes, livestock and crops pillaged, and inhabitants displaced from their homes.

The pervasive nature of these attacks has resulted in a continuous state of persecution for the populations, highlighting a concerning security vacuum marked by the conspicuous absence of the Malian Armed Forces on the ground. This void contributes to a profound sense of abandonment among the affected communities, as exemplified by a poignant testimony from a restaurant owner in Bankass, who revealed that military intervention only occurred after the attack had transpired, reflecting the reactive rather than preventive nature of security measures.

This prevailing security vacuum has spurred the emergence of self-defence initiatives, echoing the dynamics observed in other conflict-ridden regions, such as Burkina Faso (Soré et al. 2021). The testimonial from a teacher in Bandiagara sheds light on the impetus behind the formation of self-defence militias in response to the relentless attacks by jihadist groups and unidentified armed men. The proliferation of such militias becomes a testament to the dire circumstances faced by these communities, where self-preservation becomes a necessity in the absence of robust security measures. Upon grasping the severity of the situation, segments of the population, notably Dogon hunters known as dozos, took it upon themselves to confront the jihadist threat (Poudiougou 2024b). These dozos not only countered the attacks on people during their journeys but also resisted the imposition of principles by the jihadists, particularly the enforced veiling of women. In the face of these encroachments on personal freedoms, the dozos emerged as a grassroots response, embodying a collective determination to resist the jihadists' intrusion into the daily lives and cultural norms of the community. This dynamic underscores the multifaceted role played by self-defence initiatives in preserving not only the physical security of the populace but also their cultural and societal autonomy.

The genesis of self-defence militias is rooted in the populace's yearning for peace and security amid the perceived inadequacy of responses from the official armed forces. The ideals of defence and security have become cherished aspirations for many communities and their residents. However, the reality of these militias often diverges from their purported mission, leading to unintended consequences. While ostensibly formed to protect the population, these militias sometimes succumb to the allure of economic gains, resorting to extortion of the very people they claim to safeguard.

The concept of the 'war effort' or 'security effort' is central to this exploitative dynamic. In practice, these militias levy taxes, either in kind or in cash, based on the economic significance of each village. Moreover, households are mandated to contribute a member to join the militia and participate in their operations. In regions where the state's monopoly on violence has eroded, this taxation scheme operates unchecked, with local populations compelled to comply under the threat of violence. The militias maintain their demand for security by deliberately destabilizing regions, a strategy that, once successful, binds local populations—whether due to their economic activities or lack of means to escape—to cooperate with the armed groups.

This coercion results in a complex interplay between vulnerability, economic exploitation, and the pursuit of security. The populations, constrained by violence and insecurity, find themselves compelled to collaborate with the armed groups or fulfil their demands. While these dynamics may not align with the perceptions of the affected populations, they underscore the intricate web of circumstances that shape their decisions in the fraught landscape of conflict and insecurity:

In fact, in our village, the dozors have never asked for any contribution. Nevertheless, sometimes, the population itself decides to help them by giving them an amount from XOF500,000 to XOF1,000,000 as a contribution to security efforts (farmer, Niono, February 2022).

The significance lies not only in the mere act of contribution but also in the level and frequency of these imposed levies. Considering the already challenging and precarious living conditions of rural populations, it becomes apparent that such exploitative practices further exacerbate their hardships. Nevertheless, the relentless violence that permeates their daily existence leaves them with little choice, and in contexts where survival is a constant struggle, no effort seems too great. Paradoxically, these populations, subjected to violence by jihadist groups, unwittingly become an economic boon for these very groups. The economic exploitation inflicted upon them by the armed groups raises profound questions about the sincerity of the jihadists' rhetoric. Local populations, despite the challenges they face, demonstrate a discerning awareness of the incongruity between the discourse propagated by these groups and the harsh realities of their practices. Deciphering the true intentions behind the actions of jihadist groups may remain challenging, but the economic exploitation they perpetrate is discernible and, at times, even quantifiable. As articulated by an interviewee from Mopti, there is a palpable sense of scepticism and a desire to unravel the genuine motivations behind the actions of these groups:

With radical armed groups, there is the payment of taxes on livestock, for example XOF2,000 per large ruminant. Non-payment of this tax exposes the herder to the removal of all his animals. Also, access to the farm field is conditional on the payment of a tax by the farmer to the radical armed groups (Mopti, September 2021).

The term 'radicals', which is employed to characterize jihadist groups, may carry nuanced connotations, suggesting a rejection of the manner in which these groups manifest religious principles. Their imposition of 'racketeering' endeavours involves a deconstruction of the traditional notion of 'taxes', framing it within the concept of Zakat. Leveraging Zakat serves as a strategic means to garner the support and compliance of the local population, fostering a more receptive environment for the payment of mandated levies.

4.2 Fragilization of local economies

On the ground, in Ségou and Mopti, populations are subjected to recurrent attacks, experiencing a barrage of assaults that leave villages in ruins and agricultural lands off-limits for cultivation. Multiple sources in Bandiagara provide consistent accounts of this harrowing reality:

November 2019, on a Tuesday, the day of the weekly fair in Bankass, a muni bus filled with traders, mostly women with their goods (e.g., clothes, ice cream, drinks, cakes), was attacked on the fish road, '*route de poisson*' (between Bandiagara and Bankass). During this attack, nine women were killed, one of whom was even pregnant; some were wounded; and others were abducted by the jihadists. The following Tuesday, two employees of one of the largest bakeries in Bandiagara, were transporting bread to Bankass when they were attacked and kidnapped. To this day, the two employees and their car are missing. Since then, traders have been afraid to use the Bandiagara-Bankass road. Although the road is often used by some, it is still unsafe. This has greatly affected traders because some traders (especially women) earned their living through their Bandiagara-Bankass trip. In February 2019, the weekly fair in Kendié, in a Bandiagara department, was attacked by jihadists, and some people were killed in the attack. This fair was very popular

with Bandiagara traders, especially the large shallot and onion traders. In the same year, the village of N'djombô, a cattle-breeding village that supplied many of the Bandiagara butchers, was also attacked. In 2020, at the weekly fair in Sangha, which is one of the largest villages in the commune, Dogon and Peulh clashed. Since then, the Peulhs have stopped attending this fair because Sangha is a Dogon village and is mostly composed of dozos (Bandiagara, September 2021).

Weekly fairs stand as pivotal elements in the local economy of Mali, serving as key hubs for the exchange of goods and services among diverse economic actors. These markets facilitate the acquisition of essential items, such as food, raw materials, and various products, as well as provide a platform for selling locally produced goods. The significance of weekly fairs lies not only in the products exchanged but also in the intricate supply chain that brings these commodities to local markets. Any disruption in the regular occurrence of these fairs has the potential to upset the entire local economic circuit, highlighting the interconnectedness of production and consumption.

Analogous to a hydraulic pump irrigating the economic and social system, weekly fairs ensure the circulation of goods and services, acting as a vital link between production and consumption. This system of circulation, akin to blood flow, becomes disrupted by armed conflicts on the ground, marked by attacks and the kidnapping of both animals and individuals. Consequently, this disrupts the normal functioning of the economic and social ecosystem, confining populations to their localities. In areas where production is still possible, the armed conflict imposes further constraints, limiting economic activities. The prohibition of production activities in some localities exacerbates these challenges, creating a complex web of economic stagnation and social disruption.

In Niono, within the Ségou region, the local economy, predominantly reliant on agriculture and livestock, faces severe disruptions due to the presence of various forces, including armed jihadist groups, self-defence dozos, and the Malian Armed Forces. The impact on agriculture is particularly pronounced, with farms frequently burned, livestock seized, and, notably, formal prohibitions on cultivation in certain villages.

A striking example of this disruption is seen in the commune of Mariko, where extensive rice fields covering approximately 2,100 hectares faced deliberate destruction. Villages like Buyagui Wère, Sibiri Wère, Ndate Kumana, Mansakura, TG Wère, Barou Wère, Bolibana, and Tientien Bugu experienced prevention of harvesting, pre-harvest burning, or post-harvest burning. Similar incidents occurred in Ntori Dagako on 8 October 2021, where farms were either prevented from being harvested or were burned. Other areas, such as Modolo and Ndogofri, faced disappointment during the harvest season due to prevention from harvesting. The pattern observed suggests that areas with limited or no presence of the Malian Armed Forces became targets for jihadists who obstructed cultivation or destroyed crops.

A perplexing element in this scenario is the apparent double standard observed in Chouala, where farms were not only cultivated but also harvested, with products stored. This raises questions about whether a pact with jihadists played a role in Chouala being spared from disruptions that affected its neighbouring areas, like Diabaly. The complexity of understanding the interests that drive armed jihadist groups to hinder population activities, particularly in crucial sectors like agriculture, remains a challenging question. The deliberate prevention of farming activities, including the burning of mature crops, raises suspicions of a strategy aimed at inducing starvation to enforce compliance. The contested nature of Niono, where jihadist rules become norms in places like Farabougou, underscores the intricate dynamics shaping the local economy amid the presence of conflicting forces.

In Niono, the armed conflict has instilled fear among the population, prompting farmers to adopt defensive strategies in response to the continuous threat posed by armed groups, including jihadists. The practical implementation of these defence measures involves seeking support from traditional hunters, known as dozors. This collaborative defence strategy is community-wide, involving various villages and localities. To counter the threat, a division of roles has been established. While one group, comprising men, women, and youth, engages in cultivating the land and harvesting crops, another group takes on the responsibility of surveillance and security. This coordinated effort allows certain localities to continue their agricultural activities despite the persistent presence of jihadists and the constant threat of attacks on farmers.

The pervasive presence of armed groups and the ongoing attacks have compelled the farmers of Niono to seek ways to resist—not only as members of dozo groups but also at the individual level. It has become common to witness farmers carrying rifles slung over their shoulders while engaged in routine activities such as harvesting. This practice, characterized by a sense of ‘working in fear’, illustrates the challenging circumstances faced by the farming community in Niono as they navigate the realities of the armed conflict.

Armed conflicts exert a detrimental influence on economies through various channels, with widespread consequences on physical, human, and social capital. The accepted understanding is that conflicts result in the destruction of infrastructure, equipment, human skills, and social networks. Studies indicate that wars can lead to a per capita income reduction of 15%, a decrease in the economic growth rate by two percentage points, and a capital flight of up to 20% (Hugon 2006). This adverse relationship between conflict and economic development is evident in the impact on trust, a crucial component of social capital that underpins economic growth. Trust, based on networks, rules, and relationships, is a vital element for fostering investment, which is central to production and economic expansion. Armed conflicts, however, disrupt this trust, creating distortions in the normal functioning of the social and economic ecosystem. Consequently, the economy faces a decline in investment, as potential investors lose confidence in the stability of the region. The destruction wrought by conflicts translates into a reduction in economic growth.

At the local level, the situation is further exacerbated. Armed conflicts not only disrupt trust between populations but also perpetuate a state of general mistrust and anxiety. In Niono, economic activities unfold within an atmosphere of pervasive uncertainty. People are convinced that their conversations are being monitored, fostering a sense of caution and reluctance to engage with unfamiliar individuals. The population, residing in an environment of general insecurity, refrains from freely sharing information due to fears of infiltration and concerns about the faithful transmission of their words to unknown entities. This atmosphere of apprehension significantly complicates economic interactions and community dynamics in Niono.

Armed conflicts further exacerbate the destruction of the economy by profoundly affecting the formation of human capital. The endogenous theory of growth posits that human capital is the central determinant of economic growth, a concept emphasized since the 18th century by Adam Smith (Smith 1776). According to this theory, education and training serve as the bedrock for development through the cultivation of human capital. Unfortunately, armed conflicts deliver a devastating blow to education systems. In the case of Niono, the impact on schools is pronounced. Beyond a radius of five kilometres from the town, nearly all schools are shuttered. The disruption caused by armed conflicts severely hampers educational opportunities, hindering the formation of human capital critical for fostering economic growth and development. The closure of schools not only deprives individuals of access to education but also undermines the potential for long-term economic advancement, creating a bleak scenario for the affected population in Niono.

The conflict is dismantling the sources of income for the population. Many individuals, forced to flee conflict zones, have relinquished their income-generating activities. Providing a characterization of the armed conflicts in Mali, a resident of Bankass, presently residing in Bandiagara, recounts the dire impact on livelihoods:

(...) Thank God, I was able to escape, but the conflict affected me a lot because I left Bankass altogether to come and live with my cousin in Bandiagara, so as not to be killed. I lost my home and my plots of millet that we used to cultivate, not only to feed ourselves but also to sell part of it. And worse, my restaurant activities that allowed me to meet all my expenses also came to an end. Otherwise, the restaurant activities could bring in XOF8,000 to XOF10,000 per day (monthly estimate: XOF240,000 to XOF300,000) before this conflict. And it is the same restaurant that allowed me to build the house where I lived in Bankass because when my husband died, we were renting. Currently in Bandiagara, I only sell rice at noon, and the activity does not bring me much money because here I am not known and the market is not as profitable as in Bankass. Few people buy rice outside. But I find that even at the price of soap, my current earnings are between XOF1,500 and XOF2,500 per day (displaced person, Bankass, Bandiagara, September 2021).

This statement underscores the challenges faced by local populations in securing their survival, as their livelihoods depend on activities such as agriculture, small trade, livestock, fishing, and handicrafts. These activities bear a direct impact from armed conflicts, compelling the population to abandon their fields and livestock, placing them in precarious situations. In the best-case scenarios, they become dependent on others, while in other instances, they lack essential provisions such as shelter, healthcare, and food. Economically, these once-active communities are rendered inactive due to attacks, livestock seizures, the prohibition of agricultural activities, and the disruption of weekly fairs, all contributing to the internal and external dynamics of local economies.

Table 1: The comparative effects of armed conflicts in Ségou and Mopti

Variables	Region	
	Ségou	Mopti
Basic information		
Surface	62.504 km ²	79.017 km ²
Number of communes	118	108
Number of villages	2,258	2,078
Population	3,223,632	2,799,099
Economic activities		
Main activity	Agriculture	Breeding
Other economic activities	Trade; breeding; fishing; tourism	Agriculture, trade; tourism, craft industry finishing
Presence of armed groups		
Jihdist group	Katiba de Macina	Katiba de Macina and EIGS ¹
Self-defence group (dozo)	Dozo	Dana Ambassagou
Attacks		
Targets	FAMA; populations; dozoes and voyageurs	FAMA ² ; dozoes; populations and voyageurs
Attack ways	Use of fire; armed attacks; kidnapping; explosion	Use of fire; armed attacks; kidnapping; explosion
Armed groups claim		
Jihdist group	Islam and establishment of Sharia law	Islam and establishment of Sharia law
Self-defence group (dozo)	Peace and security; protection of local population	Peace and security; protection of local population
Effects on local economy		
Destruction of local supply (production)	Agriculture; breeding; fishing; tourism; pêche; tourism; investment	Agriculture; breeding; fishing; tourism; craft industry
Destruction of local demand	Trade; mobility; consumption	Trade; weekly market
Economic exploitation	Livestock removal; taxes on livestock and activities (Zakat); contribution to the war effort; population displacement	Livestock removal; taxes on livestock and activities (Zakat); contribution to the war effort; population displacement

Source: author's compilation from literature and fieldwork.

In both regions, the presence of armed jihadist groups and armed self-defence groups has led to significant disruptions in the local economy. The armed jihadist groups, notably the Macina Katiba, leverage religion to enforce their violent operations and impose the levying of Zakat. Their objectives centre around establishing Islam and Sharia law. On the other hand, self-defence groups, represented by the dozo, have emerged to address the pressing need for local population security, peace, and protection. Despite their divergent goals, both types of armed groups have produced detrimental effects on the local economy. The economic scales in these regions have contracted, and in certain areas, economic activities have completely broken down. The consequences of an armed group presence include the confiscation of livestock, imposition of taxes and fees on livestock, and the requirement of authorization for engaging in economic activities. Additionally, the local population is compelled to contribute, both in kind and in cash, to support the efforts of self-defence groups. In essence, the practices of armed groups, whether jihadist or self-defence, reveal a common theme of economic exploitation. Similar to observations in Syria (Vignal 2018), economic practices in these regions have been reduced to a basic survival mantra, 'Produce, consume, and live', in areas where it is still possible. However, in many other places, economic activities have been entirely obliterated due to the pervasive impacts of armed conflicts.

¹ Islamic State in the Great Sahara.

² Malian Armed Forces.

5 Conclusion

The examination of armed conflicts in Mali, particularly in the regions of Mopti and Ségou, reveals multifaceted dynamics that extend beyond the traditional scope of conflict analysis. While the existing literature often emphasizes macro-level factors and causal relationships between the economy and conflict, this study underscores the imperative to delve into the intricacies of local economies during times of conflict. The profound impact of armed and jihadist groups on economic activities in these regions necessitates a nuanced understanding of the evolving economic landscape, from agricultural and livestock practices to trade and tourism. The escalation of armed conflicts in Mopti and Ségou has reshaped the economic and social fabric of these regions, challenging conventional theories that may oversimplify the complexities of conflict dynamics. The emergence of self-defence militias, such as the *dozos*, signifies a local response to the vacuum left by the absence of state security forces. However, these militias, despite their initial motivations for peace and security, have become entangled in economic interests, exploiting the vulnerable local populations through practices like the war effort.

Moreover, the economic exploitation by jihadist groups, evident in the levying of taxes on livestock and conditional access to farmland, underscores the intertwining of violence and economic coercion. The discrepancy between the professed religious ideals and the economic practices of these groups raises questions about the true intentions behind their actions, compelling local populations to navigate a precarious balance between compliance and resistance. As the armed conflicts persist, it is essential to recognize the economic dimensions of the ongoing struggles, moving beyond traditional conflict narratives. This nuanced understanding is crucial for informing humanitarian efforts, shaping security policies, and fostering community resilience. The study underscores the need for a comprehensive approach that integrates economic, social, and political factors to unravel the intricate dynamics of conflict and offers insights for conflict prevention, policy formulation, and international relations in these affected regions.

Armed conflict has not only disrupted the economic fabric of Ségou and Mopti but has also led to the exploitation of vulnerable populations by armed groups. The need for economic recovery is intricately linked to achieving lasting peace and security in these regions, emphasizing the interconnectedness of socio-economic and political stability. The reconstruction of the local economy must go hand in hand with efforts to address the root causes of conflict, restore trust among populations, and create an environment conducive to sustainable economic development.

References

- ACLED (2022). 'ACLED Codebook, 2019'. Armed Conflict Location & Event Data Project (ACLED). www.acleddata.com
- Adam, A., and P. G. Sekeris (2019). 'Guerre et Paix: Les Vertus D'une Séparation des Pouvoirs Décisionnels'. *Revue Française D'économie*, XXXIV(3): 23–54. <https://doi.org/10.3917/rfe.193.0023>
- Bazzi, S., and C. Blattman (2014). 'Economic Shocks and Conflict: Evidence from Commodity Prices'. *American Economic Journal: Macroeconomics*, 6(4): 1–38. <https://doi.org/10.1257/mac.6.4.1>
- Beck, T. K. (2012). *The Normality of Civil War: Armed Groups and Everyday Life in Angola*. Frankfurt: Campus Verlag.
- Benjaminsen, T. A., and B. Ba (2021). 'Fulani-Dogon Killings in Mali: Farmer-Herder Conflicts as Insurgency and Counterinsurgency'. *African Security*, 14(1): 4–26. <https://doi.org/10.1080/19392206.2021.1925035>
- Bisoka, A. N., M. B. Tangara, Z. Soré, and G. Mathys (2024). 'Introduction. Repolitiser les Paysanneries dans les Conflits Violents en Afrique et en Amérique Latine'. *Revue Internationale des Études du Développement*, (255): 9–38.
- Brück, T., P. Justino, P. Verwimp, and A. Avdeenko (2010). 'Identifying Conflict and Violence in Micro-Level Surveys'. HiCN Working Paper 79. Brighton: Households in Conflict Network. <https://doi.org/10.2139/ssrn.1650612>
- Brück, T., P. Justino, P. Verwimp, and A. Tedesco (2013). 'Measuring Conflict Exposure in Micro-Level Surveys'. Stockholm: LSMS-ISA.
- Chebli, D. (2022). 'Économie Transnationale de la Violence et Autonomisation des Milices au Nord du Mali'. *Cultures & Conflits*, 125: 95–113. <https://doi.org/10.4000/conflits.23640>
- Collier, P., and A. Hoeffler (2004). 'Greed and Grievance in Civil War'. *Oxford University Press*, 56(2004): 563–95. <https://doi.org/10.1093/oep/gpf064>
- Cox, G. W., D. C. North, and B. R. Weingast (2019). 'The Violence Trap: A Political-Economic Approach to the Problems of Development'. *Journal of Public Finance and Public Choice*, 34(1): 3–19. <https://doi.org/10.1332/251569119X15537797528769>
- Cravo, T. A. (2018). 'Consolidation de la Paix: Postulats, Pratiques et Critiques'. *ASPJ Afrique & Francophonie*, 1: 5–21.
- Fearon, J. D. (1995). 'Rationalist Explanations for War'. *International Organization*, 49(3): 379–414. <https://doi.org/10.4324/9781315268927>
- Fearon, J. D., and D. D. L. Stanford (2003). 'Fearon_Laitin_Apsr'. *The American Political Science Association*, 97(1): 75–90.
- Goodhand, J. (2001). 'Violent Conflict, Poverty and Chronic Poverty'. Working Paper 6. Zurich: Chronic Poverty Research Centre. <https://doi.org/10.2139/ssrn.1754535>
- Grossman, H. I., and M. Kim (1995). 'Swords or Plowshares? A Theory of the Security of Claims to Property'. *Journal of Political Economy*, 103(6): 1275–88. <https://doi.org/10.1086/601453>
- Hegre, H., H. M. Nygard, H. Strand, S. Gates, and R. D. Flaten (2011). 'The Conflict Trap'. *Annual Meeting of the American Political Science Association*, Seattle. <https://doi.org/10.1177/0022002713516845>
- Hirshleifer, J. (1995). 'Anarchy and its Breakdown'. *Journal of Political Economy*, 103(1): 26–52. <https://doi.org/10.1086/261974>
- Hugon, P. (2006). 'Conflits Armés, Insécurité et Trappes à Pauvreté en Afrique'. *Afrique Contemporaine*, 218(2): 33–47. <https://doi.org/10.3917/afco.218.47>
- Hugon, P. (2001). 'L'Économie des Conflits en Afrique'. *Revue Internationale et Stratégie*, 3(43): 152–69.

- Jourde, C., M. Brossier, and M. G. Cissé, M. G. (2019). 'Prédation et Violence au Mali: Elites Statutaires Peules et Logiques de Domination dans la Région de Mopti'. *Canadian Journal of African Studies*, 53(3): 431–45. <https://doi.org/10.1080/00083968.2019.1666016>
- Justino, P. (2011). 'Violent Conflict and Human Capital Accumulation'. IDS Working Paper 2011(379). Brighton: IDS. https://doi.org/10.1111/j.2040-0209.2011.00379_2.x
- Karim, S. (2020). 'Relational State Building in Areas of Limited Statehood: Experimental Evidence on the Attitudes of the Police'. *American Political Science Review*, 114(2): 536–51. <https://doi.org/10.1017/S0003055419000716>
- Krauser, M. (2020). 'In the Eye of the Storm: Rebel Taxation of Artisanal Mines and Strategies of Violence'. *Journal of Conflict Resolution*, 64(10): 1968–93. <https://doi.org/10.1177/0022002720916824>
- Lake, M. (2022). 'Policing Insecurity'. *American Political Science Review*, 116(3): 858–74. <https://doi.org/10.1017/S0003055421001441>
- Laville, C. (2019). 'Les Causes des Conflits Civils: Avancées Récentes à L'aide de Données Désagrégées'. *Revue Française D'économie*, XXXIV(3): 123–65. <https://doi.org/10.3917/rfe.193.0123>
- Leader Maynard, J. (2019). 'Ideology and Armed Conflict'. *Journal of Peace Research*, 56(5): 635–49. <https://doi.org/10.1177/0022343319826629>
- León, G. (2012). 'Civil Conflict and Human Capital Accumulation: The Long-Term Effects of Political Violence in Perú'. *Journal of Human Resources*, 47(4): 991–1022. <https://doi.org/10.3368/jhr.47.4.991>
- Marchal, R. (1997). 'Terminer Une Guerre'. In R. Marchal and C. Messiant (eds), *Les Chemins de la Guerre et de la Paix. Fins de Conflit en Afrique Orientale et Australe*, pp. 5–48. Paris : Karthala. <https://doi.org/10.3917/kart.march.2009.01>
- Menuet, M., A. Pietri, and P. G. Sekeris (2019). 'Économie Des Conflits: Histoire, Méthodologie Et Enjeux De La Recherche'. *Revue Française D'économie*, XXXIV(3): 3–21. <https://doi.org/10.3917/rfe.193.0003>
- Mercier, M., R. L. Ngenzebuke, and P. Verwimp (2020). 'Violence Exposure and Poverty: Evidence from the Burundi Civil War'. *Journal of Comparative Economics*, 48(4). <https://doi.org/10.1016/j.jce.2020.04.005>
- Ouattara, I., M. Guindo, A. Traoré, and C. Adama (2020). *Diagnostic Socio Economique des Régions du Centre du Mali*. New York: UNDP. Available at: <https://mptf.undp.org/sites/default/files/documents/40000/35922> (accessed in August 2024).
- Pareto, V. (1909). *Manual of Political Economy*. French translation from the Italian edition, reprinted in *Oeuvres complètes*, 1966. Geneva: Libraire Droz.
- PDSEC (2017). 'Conseil Régional de Mopti : Plan/Programme de Développement Economique et Culturel'. Available at : https://groupepedesuivibudgetaire.org/wp-content/uploads/2018/07/PDESC-2017-2021_CR-Mopti-VF.pdf (accessed 21 August 2024).
- Poudiougou, I. (2024a). 'Dan Nan Ambassagou, un Mouvement D'autodéfense Armé en pays Dogon'. *Anthropos*, 118(2), 395–418. <https://doi.org/10.5771/0257-9774-2023-2-395>
- Poudiougou, I. (2024b). 'Défendre le Village et Combattre Pour le Terroir: La Mobilisation Armée des Groupes D'autodéfense à L'épreuve du Travail Agricole en Pays Dogon, au Centre du Mali'. *Revue Internationale des Études du Développement*, (255): 97–118. <https://doi.org/10.4000/11zhk>
- Powell, R. (2006). 'War as a Commitment Problem'. *International Organization*, 60(1): 169–203. <https://doi.org/10.1017/S0020818306060061>
- Raleigh, C., R. Kishi, and A. Linke (2023). 'Political Instability Patterns are Obscured by Conflict Dataset Scope Conditions, Sources, and Coding Choices'. *Humanities and Social Sciences Communications*, 10(74). <https://doi.org/10.1057/s41599-023-01559-4>
- Rashid, I., and A. Niang (2021). *Researching Peacebuilding in Africa*. Oxfordshire: Routledge. <https://doi.org/10.4324/9781003111740>
- Rosière, S. (2011). *Géographie des Conflits Armés et des Violences Politiques*. Paris : Ellipses.

- Sandor, A., and A. Campana (2019). 'Les Groupes Djihadistes au Mali, Entre Violence, Recherche de Légitimité et Politiques Locales'. *Canadian Journal of African Studies*, 53(3): 415–30. <https://doi.org/10.1080/00083968.2019.1667838>
- Skaperdas, S. (1992). 'Cooperation, Conflict, and Power in the Absence of Property Rights'. *American Economic Review*, 82(4): 720–39. <https://www.jstor.org/stable/2117341>
- Smith, A. (1776). *Recherches Sur la Nature et les Causes de la Richesse des Nations (Vol.1)*. Paris : Guillaumin et Cie, Librairies.
- Soré, Z., M. Cote, and B. Zongo (2021). 'Politiser le Vide Sécuritaire: à Propos des Groupes D'autodéfense Koglweogo au Burkina Faso'. *Politique Africaine*, 163(3): 127–44. <https://doi.org/10.3917/polaf.163.0127>
- Sun, B., X. Chen, L. Zhang, and W. Ma (2019). 'Three-Way Decision Making Approach to Conflict Analysis and Resolution Using Probabilistic Rough Set Over Two Universes'. *Information Sciences*, 507: 809–22. <https://doi.org/10.1016/j.ins.2019.05.080>
- Tobie, A., and B. Sangaré (2019). *Impacts des Groupes Armés Sur les Populations au Nord et au Centre du Mali Adaptations Souhaitables des Stratégies de Rétablissement de la Paix*. Stockholm: SIPRI.
- Toukara, A., and B. Gaye (2019). *Le Djihad à Ké-Macina Dans le Centre du Mali: Prosélytisme Religieux ou Enjeux Socio-économiques?* Paris: L'Harmatta.
- Vignal, L. (2018). 'Produire, Consommer, Vivre : Les Pratiques Economiques du Quotidien Dans la Syrie en Guerre (2011–2018)'. *Critique Internationale*, 80(3): 45–65. <https://doi.org/10.3917/criti.080.0045>
- Walther, O. J., T. Kučera, R. Davies, P. Collier, A. Hoeffler, J. D. Foltz, K. A. Opoku-Agyemang, M. T. Klare, O. Shemyakina, H. I. Grossman, P. Collier, P., A. Hoeffler, M. Humphreys, et. al (2017). 'Wars and Conflicts in the Sahara-Sahel'. *Oxford Economic Papers*, 51(3): 831–48. <https://doi.org/https://doi.org/10.1787/8bbc5813-en>
- World Bank (2023). *World Development Indicators Data*. Washington, DC: World Bank. <https://databank.worldbank.org/source/world-development-indicators#>
- World Bank (2011). *World Development Report 2011: Conflict, Security, and Development*. Washington, DC: World Bank.