

# Spatial Analysis of Civilian Fatalities and Effectiveness of Operation Barkhane in the Sahel Region from 2013-2022

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## Background

Operation Barkhane was a French Military anti-insurgent operation started on August 1, 2014 after the resounding success of Operation Serval, which was effective in ousting various jihadist fighters from the north of Mali. Operation Barkhane's main objective was to combat the growing influence of and territory held by various Islamist fundamentalist groups in Africa's Sahel region, including Al-Qaeda in the Islamic Maghreb (AQIM), Jama'at Nasr al-Islam wal Muslimin (JNIM), Islamic State in the Greater Sahara (ISGS), Ansar al-Sharia, among more than 20 smaller factions. These groups controlled large swaths of land rarely patrolled by the local armies. The groups would often target rural communities where many of the residents' religious beliefs were mixed between Islam and animism, which was considered haram to the jihadists. Many of the groups also targeted Sufis in the region. Despite increases in troops deployed in the region, as Figure 6 shows, the Operation has been heralded as a resounding failure due to its inability to reduce violence and diminish the control and influence of jihadist groups, as figure 2 to 5 demonstrate. Even despite the US military getting involved by supplying aerial support using its unmanned aerial vehicle (UAV) in 2019, the forces could not quell the insurgency nor the violence. Although the Sahel region includes Mauritania and Chad, for the purpose of this analysis, I am only including Mali, Burkina Faso and Niger, where most of the attacks occurred.

## Research Question

Was Operation Barkhane effective in reducing violence and subduing the insurgency in the Sahel Region?

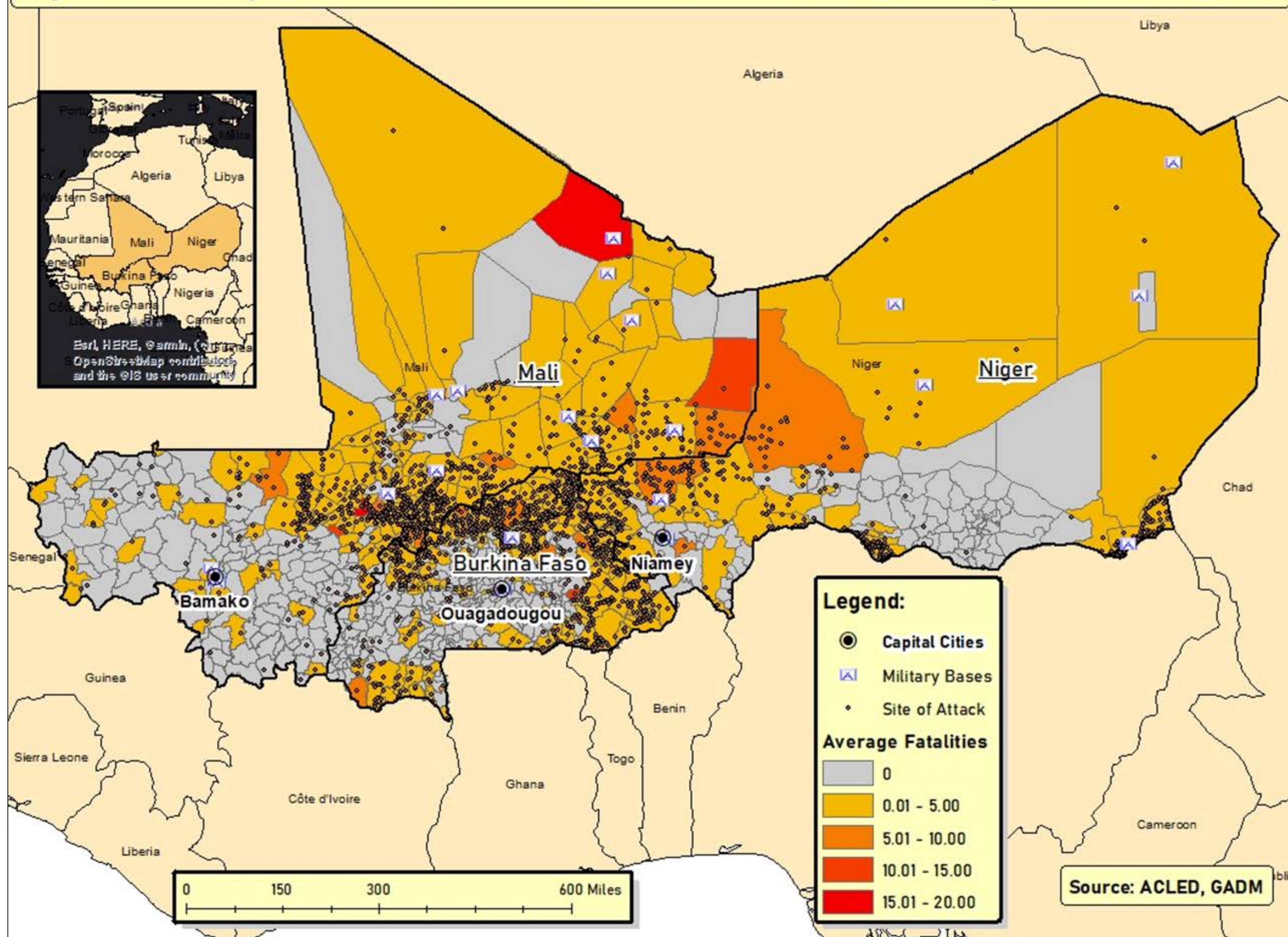
## Methodology

The data used in this spatial analysis was collected from the Armed Conflict Location & Event Data Project (ACLED), which conducts disaggregated data collection, analysis and crisis mapping projects. The data was housed within Excel files containing dates, coordinates, types of events, actors, secondary actors, and sources of attacks within the 3-country states within the region. The coordinates of the events were plotted on maps exported from GADM, focusing on the municipality level. The events were then joined with the municipal level maps and a heat map was provided to show the frequency and severity of the attacks. Data is from December 2013 until November 2022.

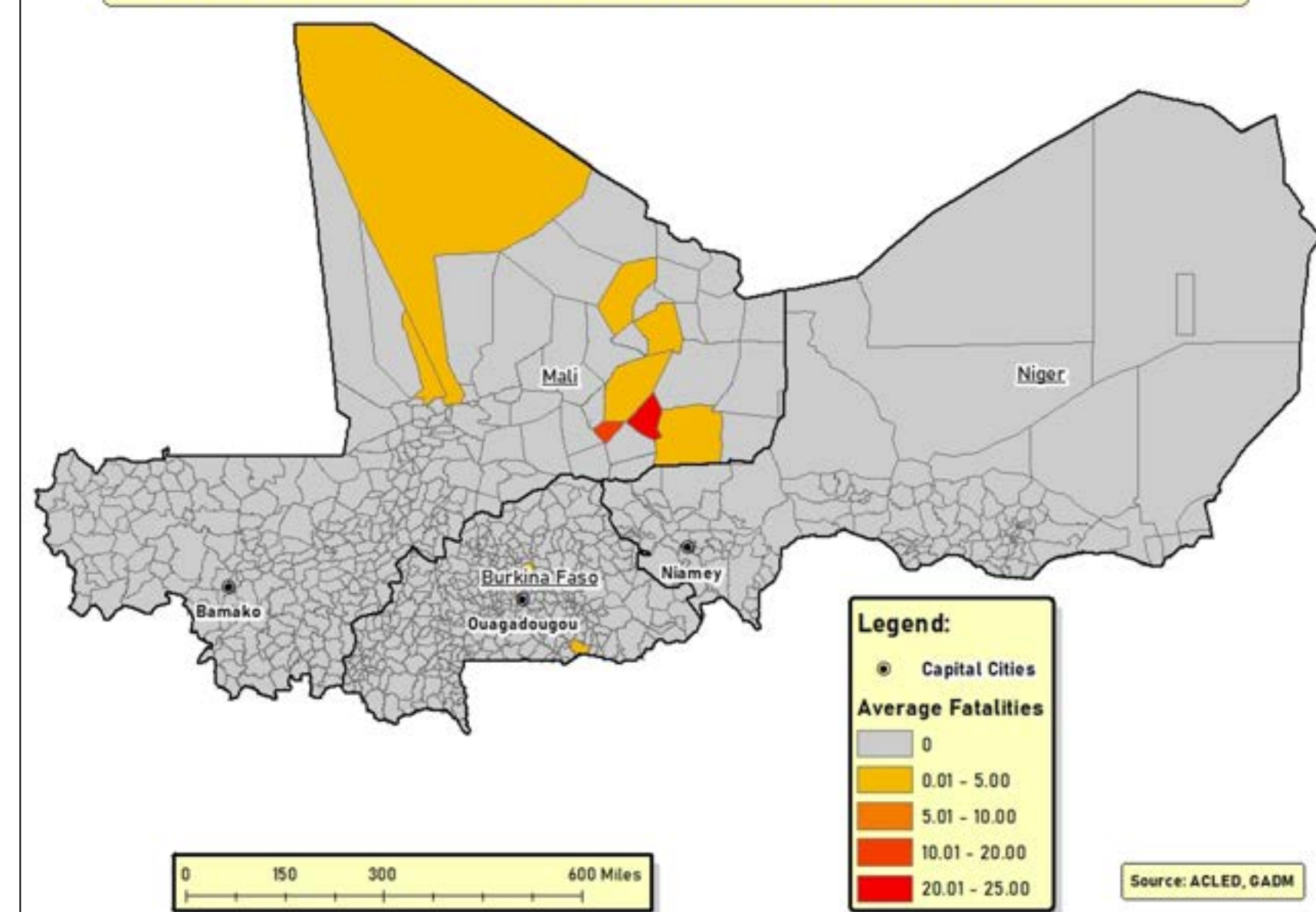
## Findings

The maps in Figures 2-5 show that Operation Barkhane had little success in slowing the expansion of jihadists' threat in the Sahel. The maps also show that the intensity, frequency and spread of the attacks increased over the 10 years analyzed. As of 2022, other bordering countries, including Benin, Ghana and Togo have been affected and may spread further.

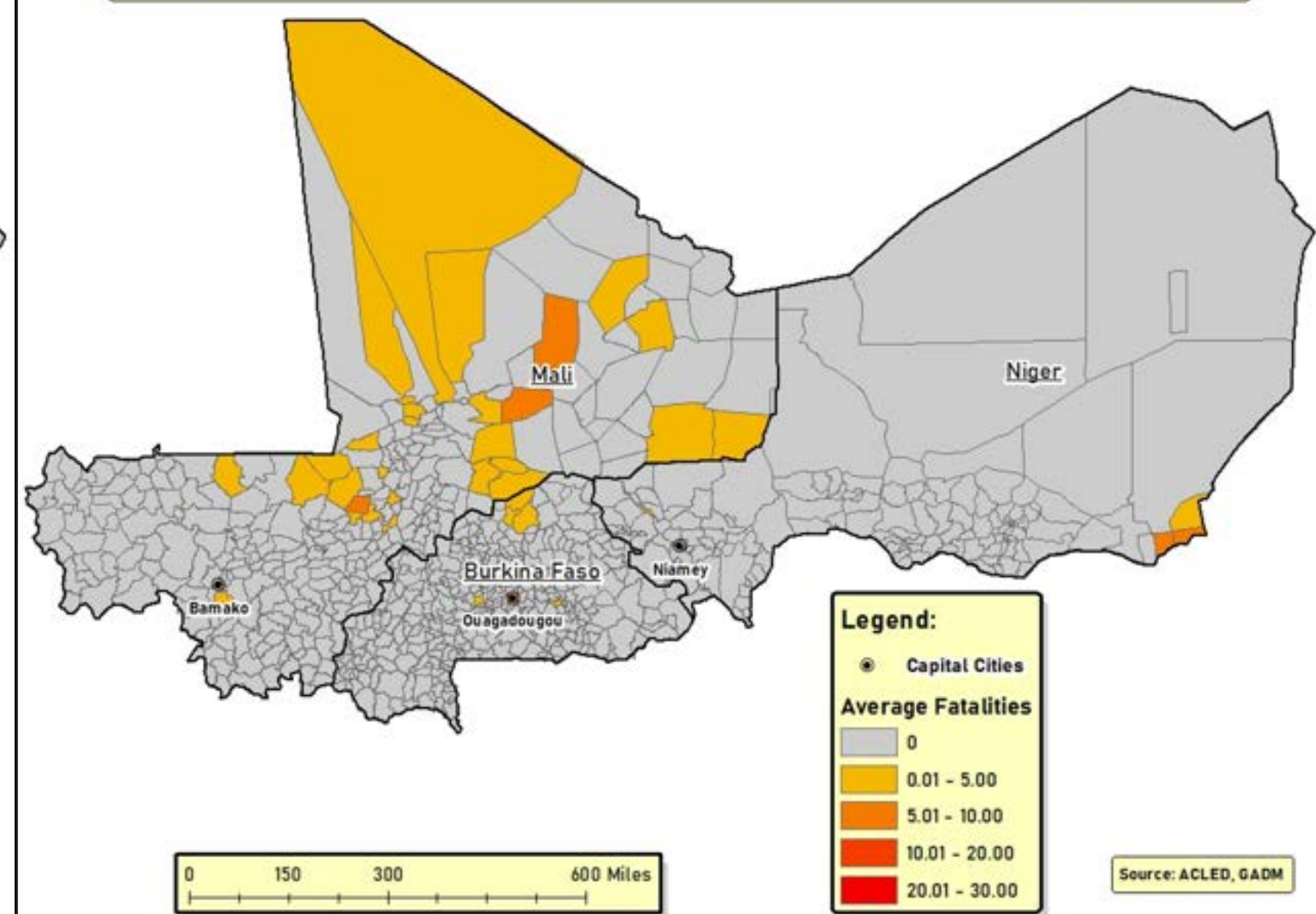
**Figure 1: Average Civilian Fatalities in Mali, Burkina Faso and Niger from 2013-2022**



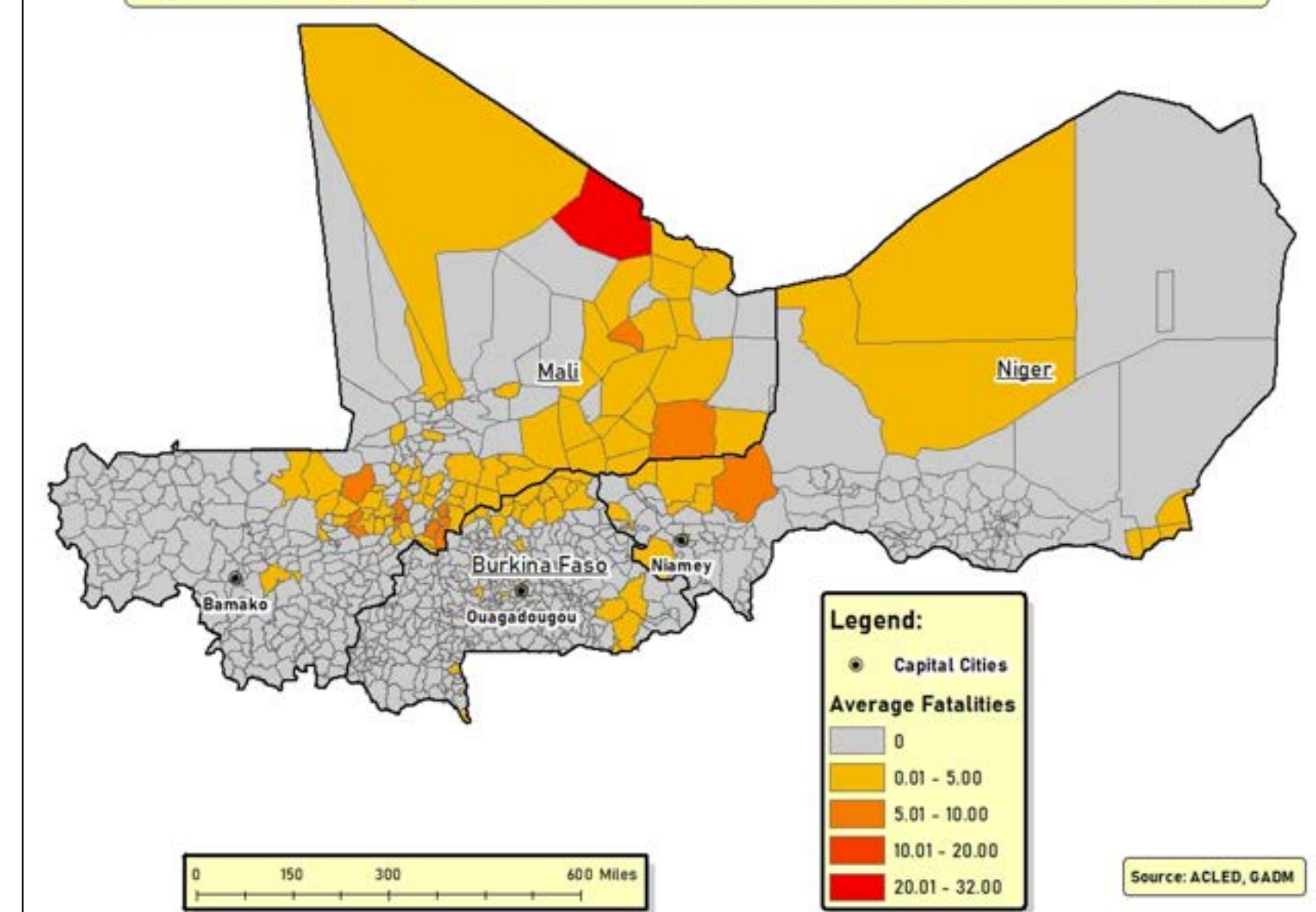
**Figure 2: Average Civilian Fatalities in the Sahel from 2013-2014**



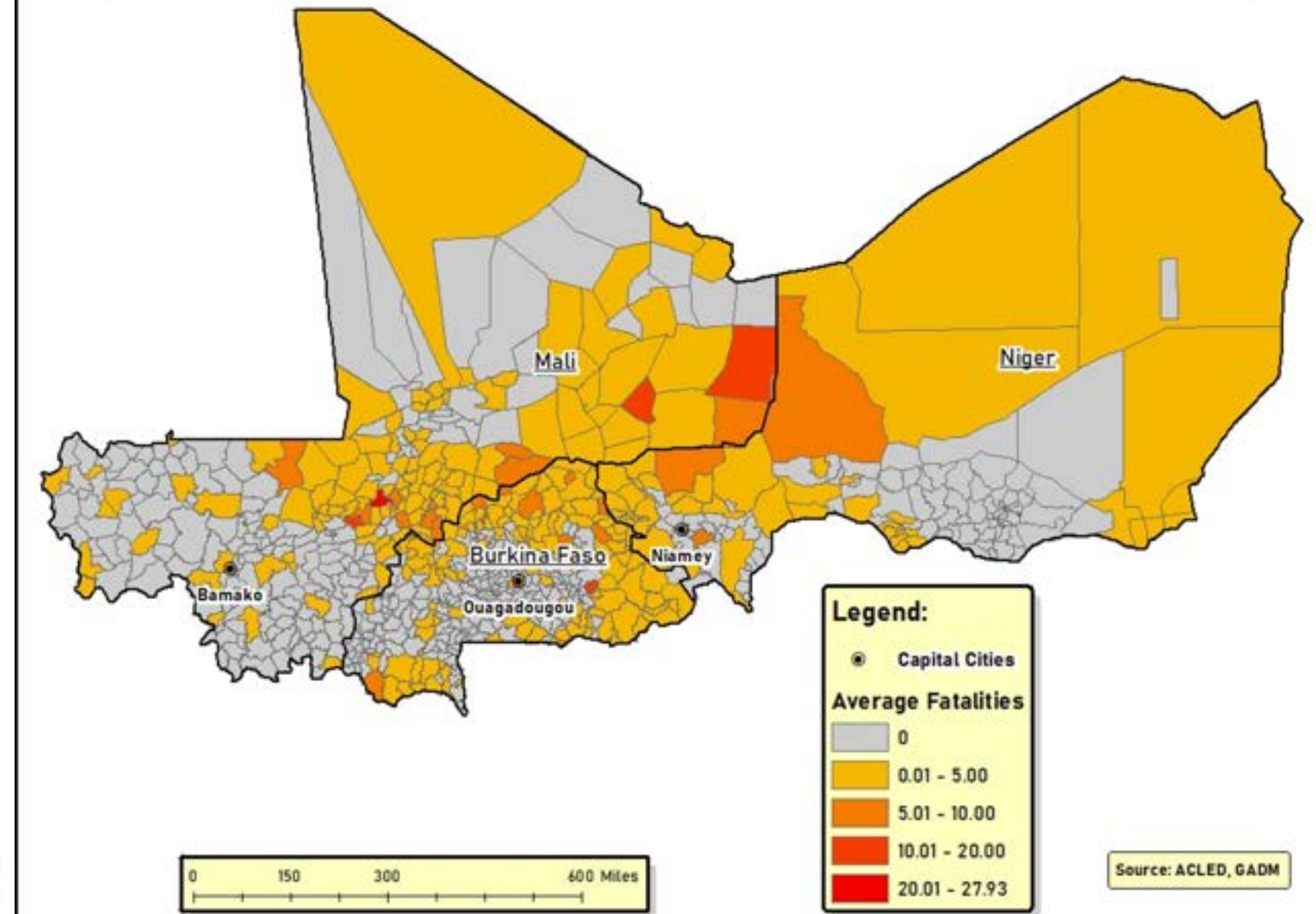
**Figure 3: Average Civilian Fatalities in the Sahel from 2015-2016**



**Figure 4: Average Civilian Fatalities in the Sahel from 2017-2018**



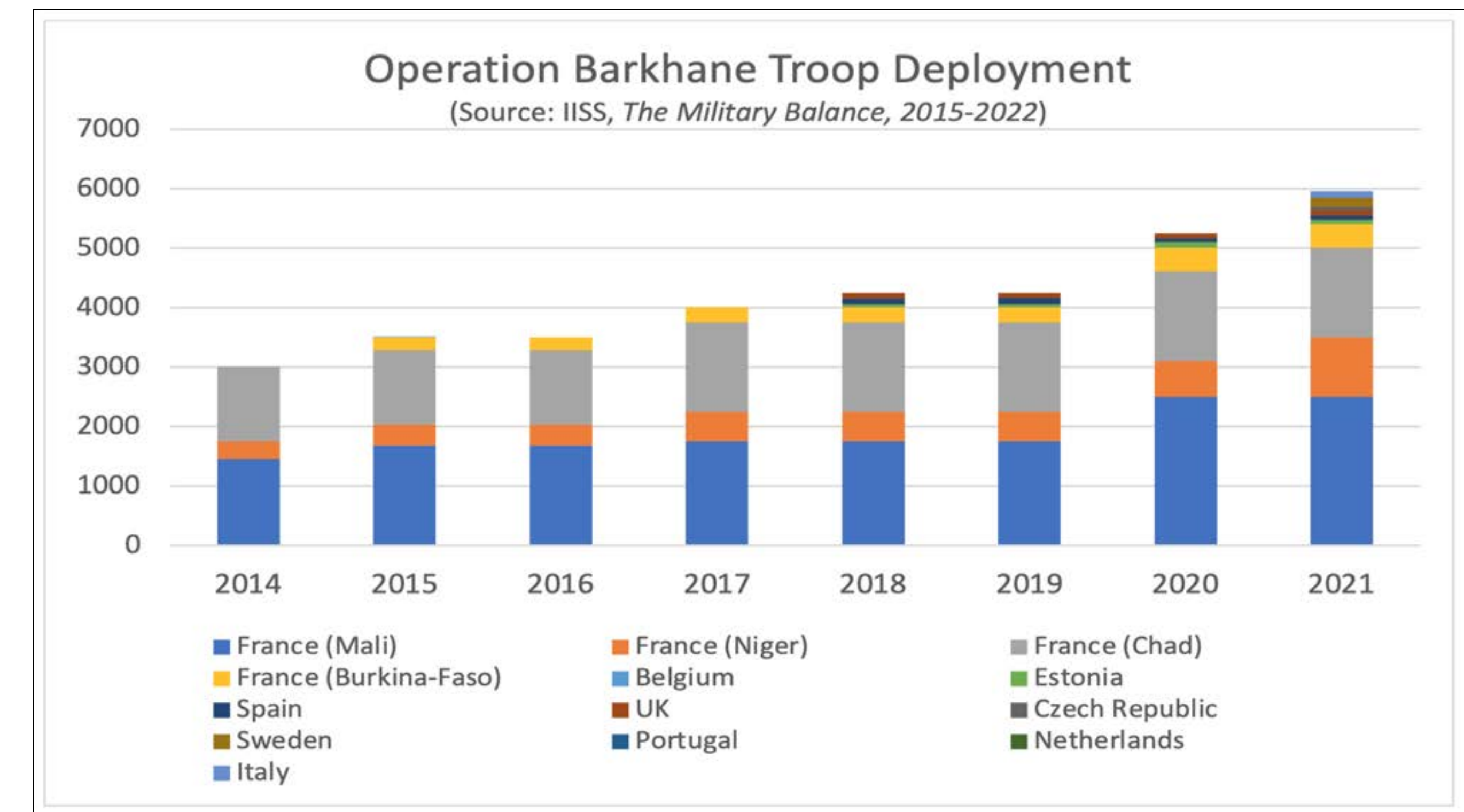
**Figure 5: Average Civilian Fatalities in the Sahel from 2019-2022**



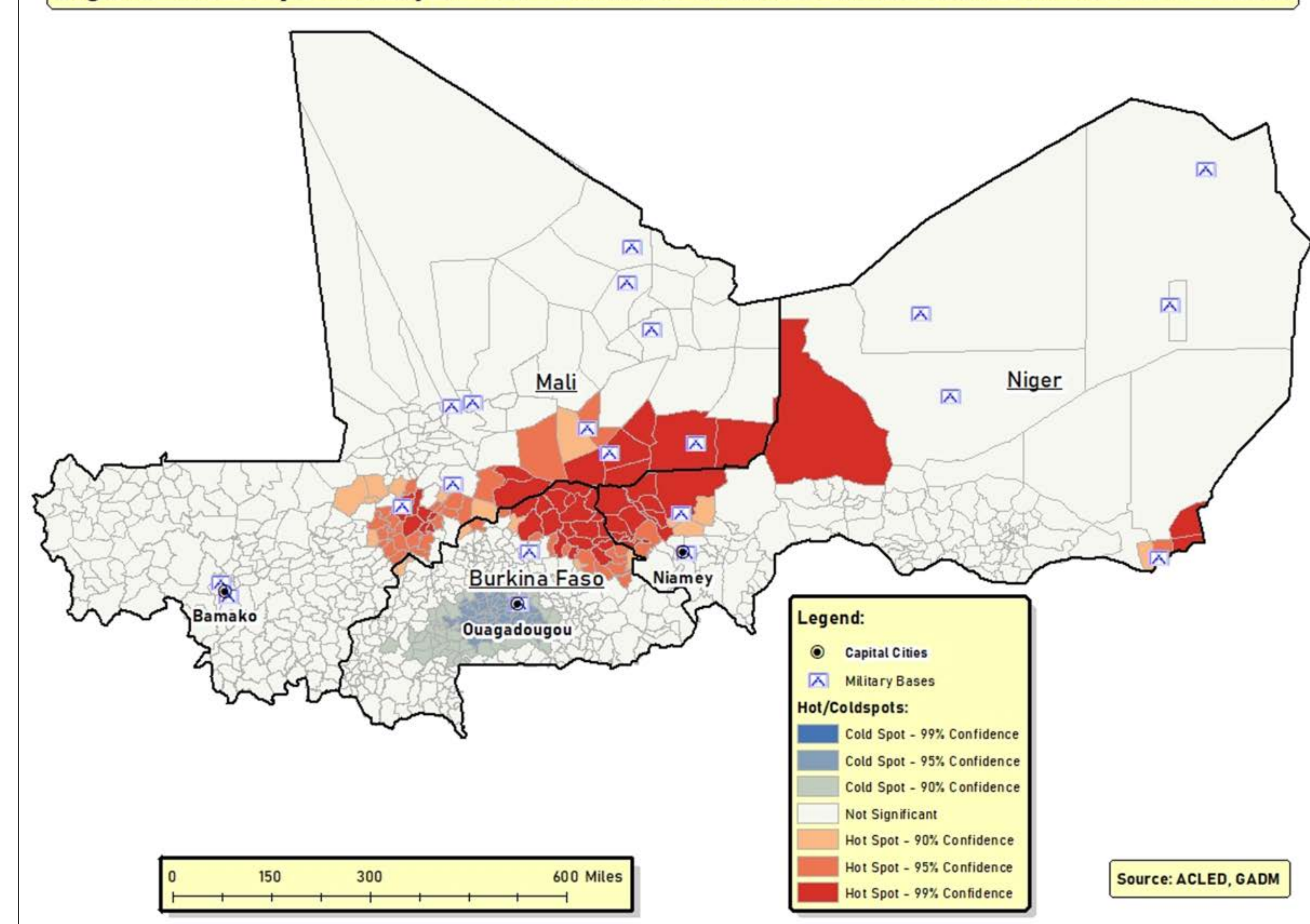
## Sources

Armed Conflict Location and Event Data Project (ACLED), available at: [acleddata.com](http://acleddata.com); The Database of Global Administrative Areas, available at: [gadm.org](http://gadm.org), and International Institute of Strategic Studies (IISS), available at [iiss.org](http://iiss.org)

**Figure 6:**



**Figure 7: Hotspot Analysis for Civilian Fatalities in the Sahel from 2020-2022**



## Conclusion and Policy Recommendations

- Despite the French forces gaining early victories in the fight, the jihadist groups in the Sahel exponentially gained recruits and spread their reach within the region. At its peak, the Operation counted on 6000 troops, which proved to be an inadequate approach.
- Even though France and other countries increasing troops, they were ineffective in quelling the influence of the jihadist forces, if anything it exacerbated the violence across the tri-border region, as Figure 5 shows.
- Given the public protests with the results of Operation Barkhane and the coup d'état that took place in Mali and Burkina Faso, France was forced to end the operation in Mali.
- For future military strategy and developmental decisions, Figure 7 shows a hotspot analysis for municipalities that had the most attacks in the last 2 years.
- France and other countries should focus on the hot spots in Figure 7, by providing funds for middle and high school education, increased involvement of local stakeholders in decision-making, more security and trainings that would offer an avenue for locals towards economic development and away from joining the jihadist insurgencies.