The evolution of IS (Islamic State) activities in Syria Between 2017 to 2022

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Introduction

In an era marked by geopolitical turbulence and socio-political unrest, understanding the spatial dynamics of conflict is paramount for informed decision-making, conflict resolution, and peace-building efforts. Arguably the most notorious belligerent party in the Syrian civil war is the Islamic State (IS). The activities conducted by the Islamic State and the motivations behind them have appeared nebulous to policymakers, particularly among the shared battlefield with numerous other parties like Hezbollah, the Global Coalition, Turkish forces, Kurdish forces, and Syrian regime forces.

As a highly prominent actor not only in Syria but also in Iraq, a more granular picture of IS activities would equip policymakers, civil society groups, and humanitarian aid organizations with a deeper understanding of the area underlying conflict dynamics.
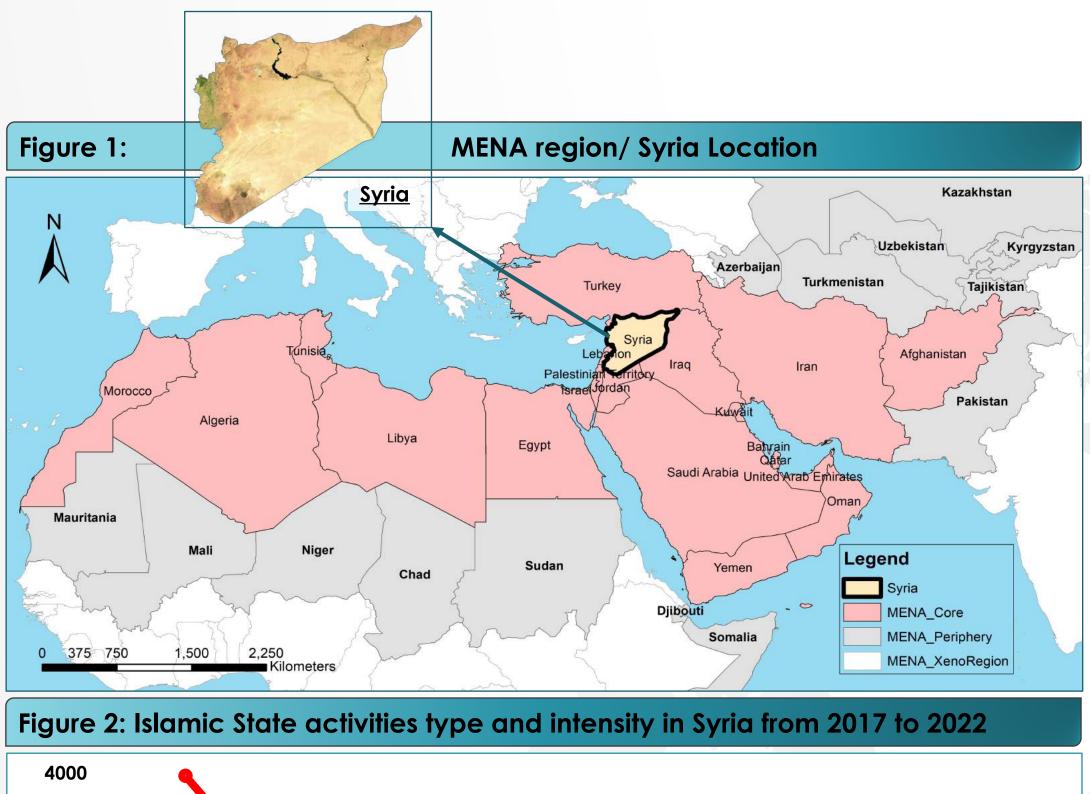
Area of Focus

This poster focuses on mapping incidents of Islamic State activity in Syria between 2017 and 2022, with the main focus being on the locations of these incidents and activities to better understand the potential concentrated areas for the IS and the reasons behind these concentrations. The conflict dynamics and undercover implications are aimed to be illustrated by the spatial analysis based on the location, distribution, and intensity of incidents to understand the conflict's drivers better and will contribute an additional layer that may be easily overlooked by policymakers attempting to understand the underlying drivers of conflict in Syria. The project is based on the data extracted from the ACLED database (Armed Conflict Locations & Events data project), specifically, IS activities in Syria 2017-2022. A visual-spatial analysis of IS activities will be provided by this project, covering the four types of activities: Battles, Explosions/ Remote violence, Strategic development, and Violence against civilians.
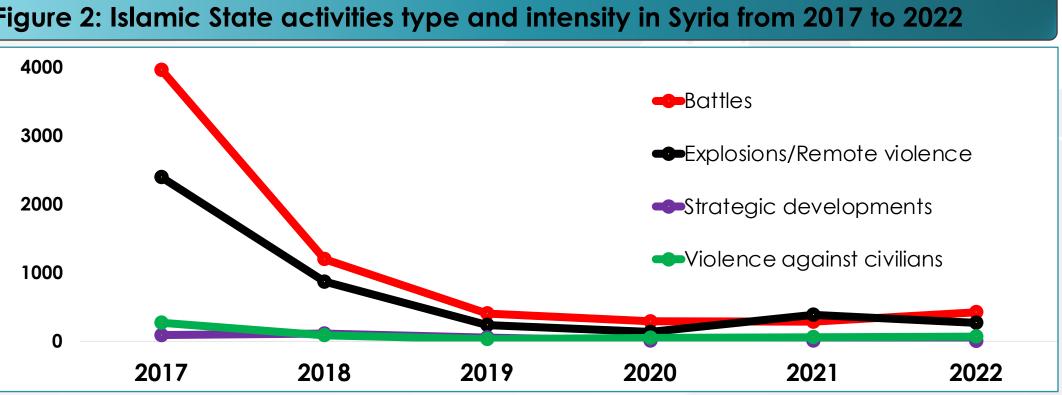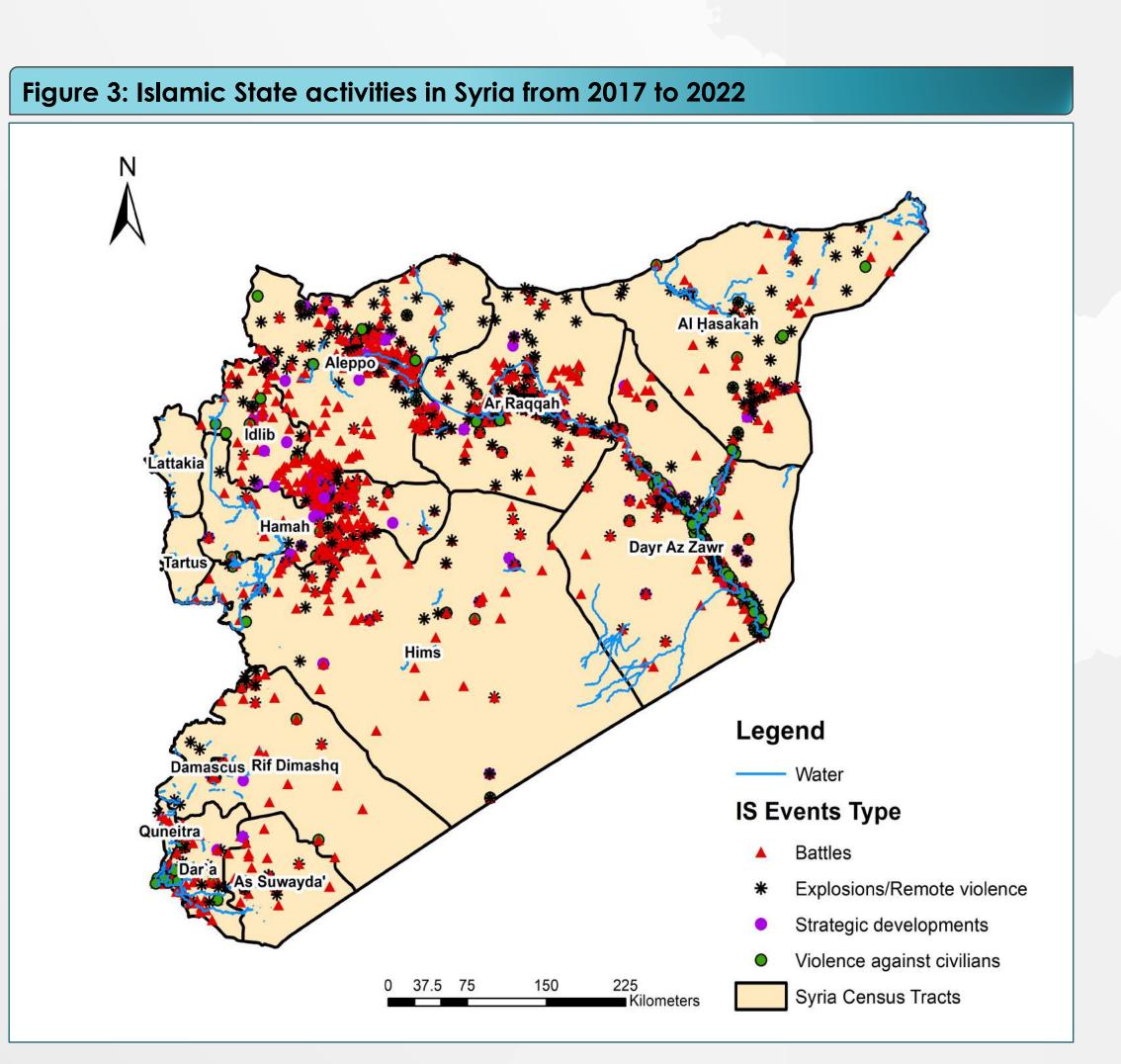
Research Questions

- What spatial patterns and distributions characterize the activities of the Islamic State in the Syrian conflict from 2017 to 2022?
- Where are the primary clusters of these activities located, and what factors contribute to the clustering of Islamic State activities in these areas?
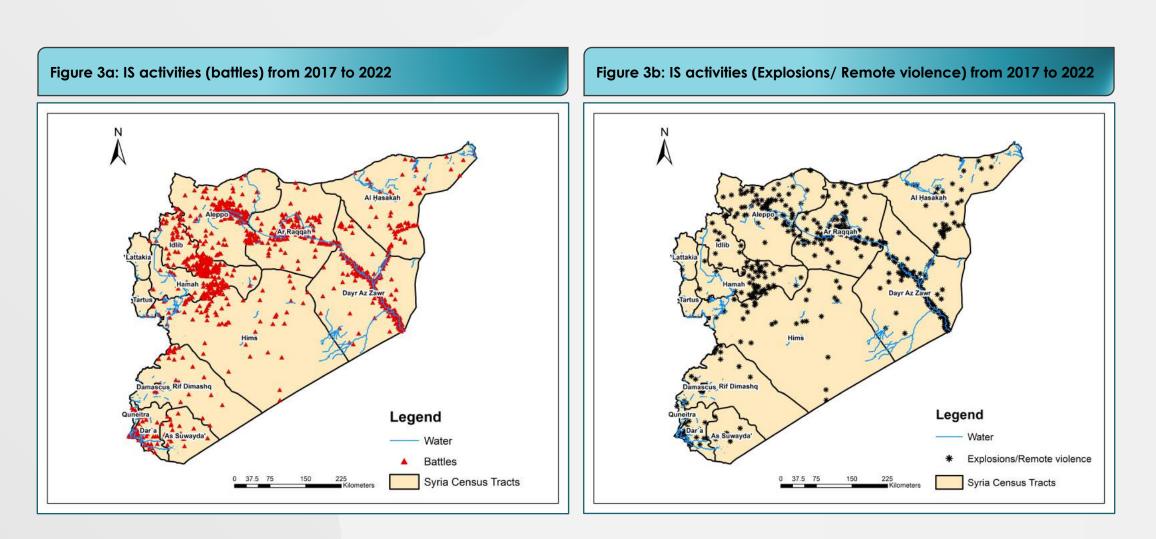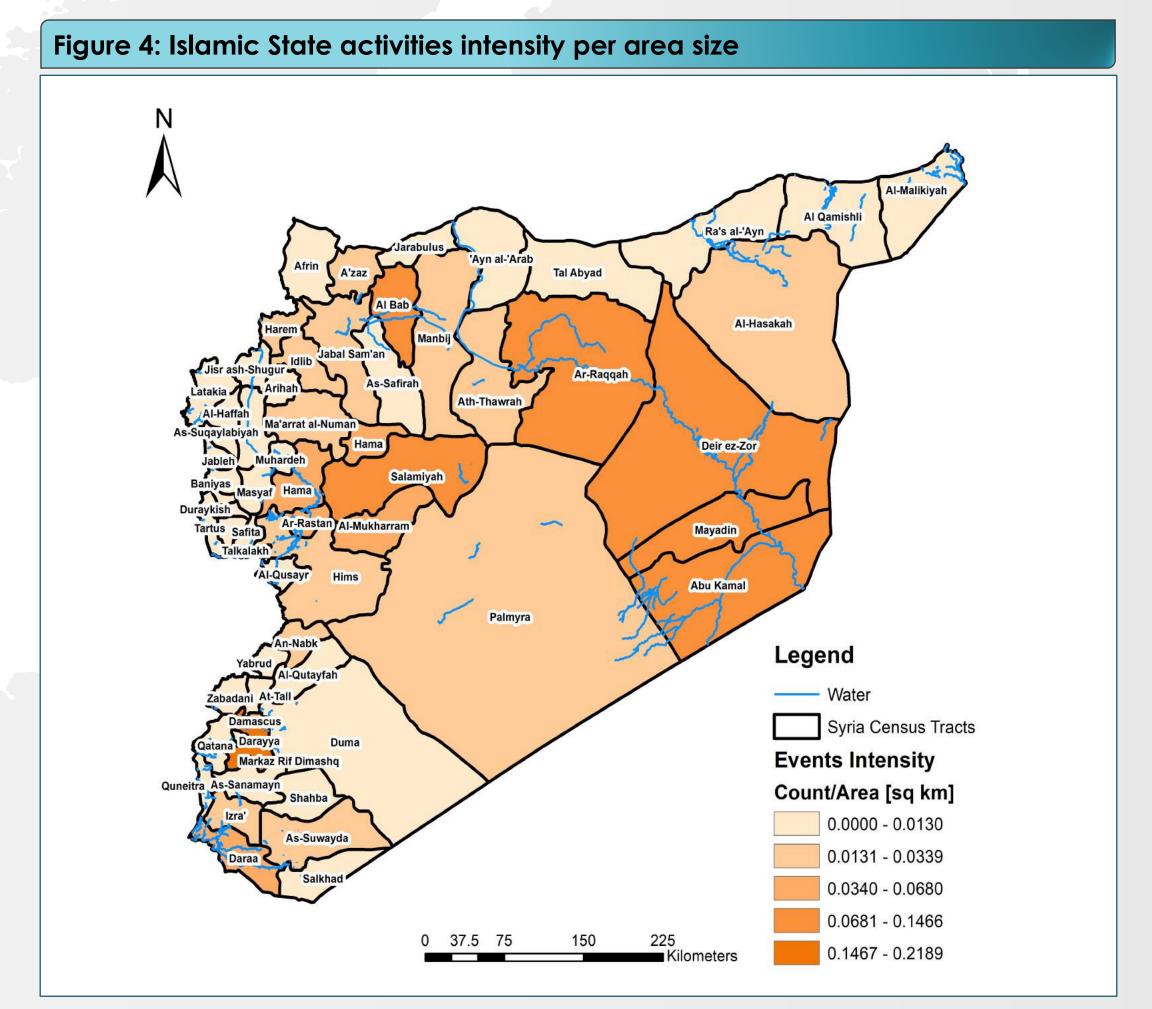
Methodology

The data for this study, covering 11,753 incidents of IS activities from 2017 to 2022, was sourced from the Armed Conflict Location and Event Data Project (ACLED). Although the Syrian civil war began in 2011, this time frame was selected based on ACLED's data availability. ACLED compiles its data from various sources, including media reports, NGO outputs, local partners, and social media. Using ArcGIS, we mapped these incidents by type and location. ACLED categorizes incidents into Battles; Explosions/Remote violence; Strategic developments; and Violence against civilians. These locations were determined based on the geocoding of longitude and latitude coordinates of reported events, which we utilized from a geocoded database from ACLED. Our mapping process involved creating event count plots, and point, choropleth, and hotspot maps to analyze spatial patterns and clusters across Syria's 14 governorates (such as Aleppo, Homs, and Al Raqqa) and their subdivisions. This approach allowed us to examine the intensity and distribution of conflicts within each governorate, as well as at the sub-governorate levels in Figures 4 and 5, which enhances the granularity and clarity of our spatial analysis in intensity and hotspot mapping. Additionally, a temporal graph charted the annual distribution of incidents, aiding in the visualization of temporal trends.

Figure 1: MENA region/ Syria Location

Figure 2: Islamic State activities type and intensity in Syria from 2017 to 2022

Figure 3: Islamic State activities in Syria from 2017 to 2022

Figure 3a: IS activities (battles) from 2017 to 2022

Figure 3b: IS activities (Explosions/ Remote violence) from 2017 to 2022

Figure 4: Islamic State activities intensity per area size

Figure 5: Cold/ Hotspots of Islamic State activities in Syria from 2017 to 2022

Figure 3c: IS activities (Strategic development) from 2017 to 2022

Figure 3d: IS activities (Violence against civilians) from 2017 to 2022
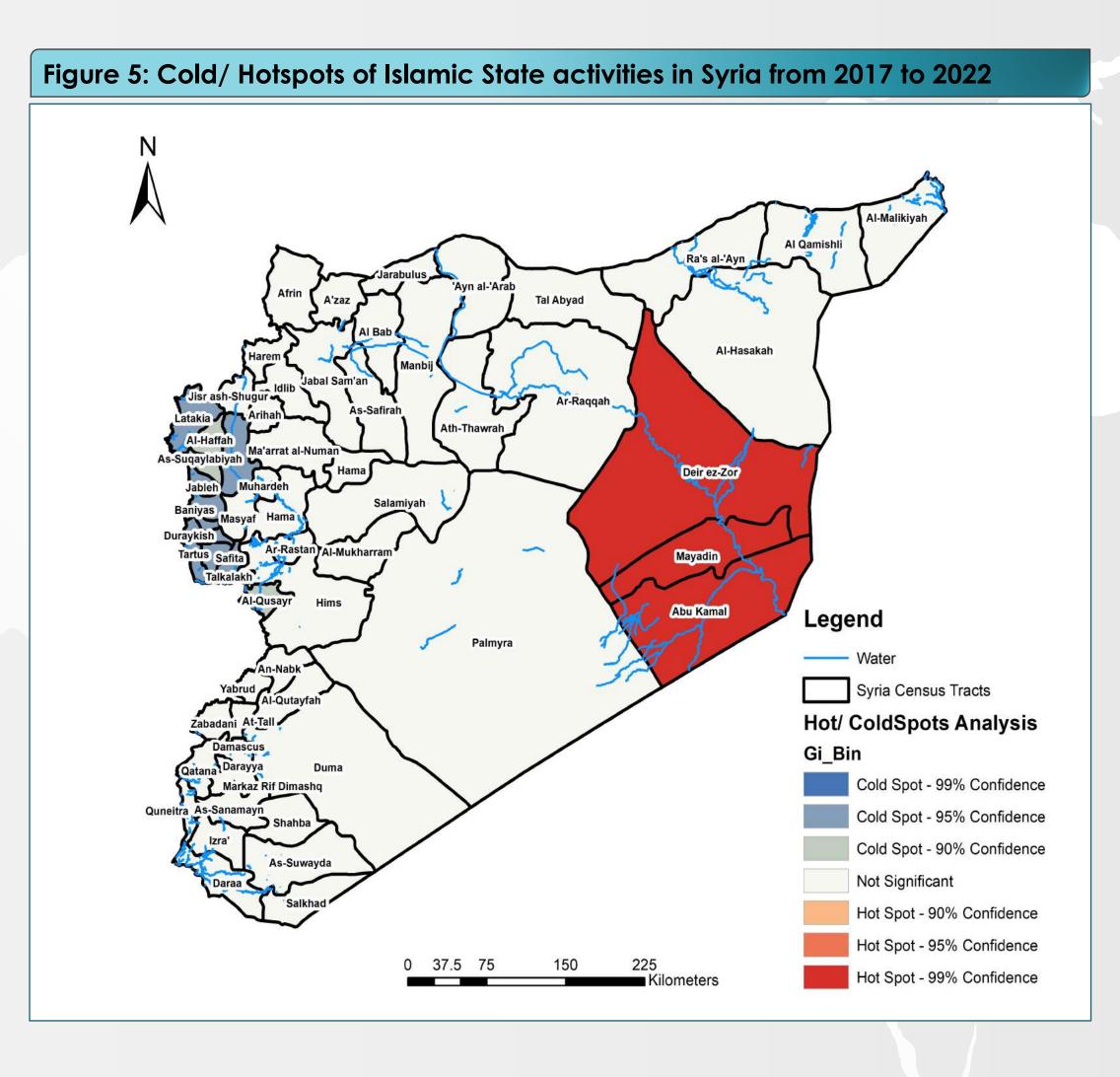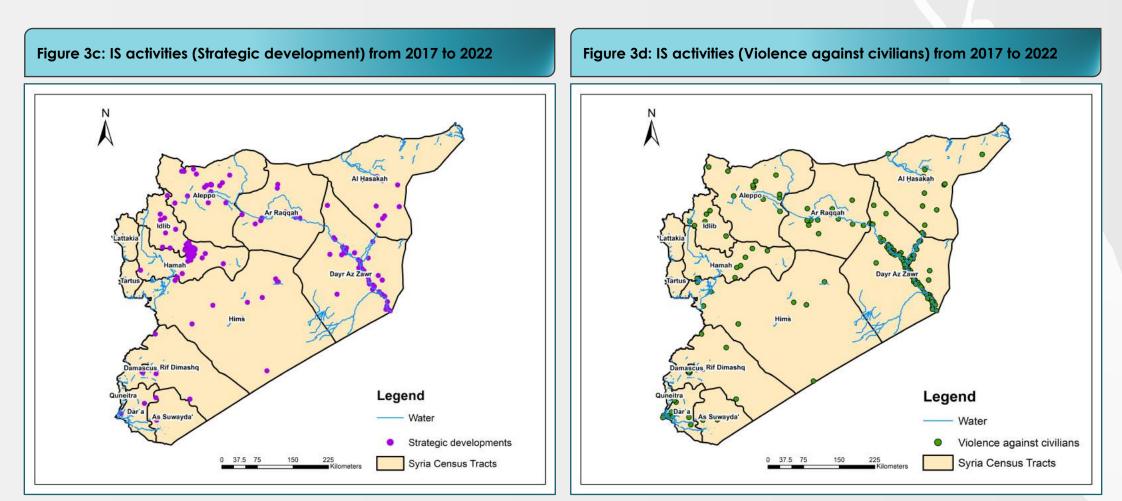
Findings

Figure 1 first outlines a basic landscape of *Syria* in the region. This is important to take into account because the territorial ambitions of the *Islamic State* are not merely limited to *Syria*. After all, areas of *Iraq* are also of central concern for the claimed *IS caliphate*. Moreover, we will see later, that some of the most highly concentrated areas of conflict border with *Iraq* and are also connected to the *Euphrates River*. Finally, borders with *Turkey* in the west of *Syria* are also worth noting given that the *Assad regime* is based there.

Figure 2 shows that combat-related incidents dropped significantly after *2018*, indicating an overall drop in violence while strategic developments and violence against civilians remained consistent, although relatively low compared to strategic developments and violence against civilians. The graph first suggests a lack of strategic planning by armed groups, which could imply that battles are unorganized in nature. This would be unsurprising given the sheer number of armed groups in the area if many incidents are sporadic and unplanned. The figure also suggests that while violence against civilians has occurred, this approach has not been a priority by IS in their activities. It is worth noting, however, that a potential limitation of this category is the blurred lines between "combatant" and "noncombatant."

Figure 3 plots each incident over the 6 years by point into each of the four event categories "For more details see **Figures 3a, 3b, 3c, and 3d**". Here we find a high number of incidents in the *Hama* and *Aleppo* governorates. The most outstanding finding here, however, is the overwhelming number of IS activities concentrated along the *Euphrates River*, which would suggest a correlation between waterways and IS activity, which can relate to using the *Euphrates River* to secure their needs for water, food, and transportation. It also appears that the highest proportion of violence against civilians is concentrated along the *Euphrates*. This makes sense considering that people tend to congregate near bodies of water. These areas thus would incur more human collateral damage, as well as deliberately inflicted violence by the *IS*.

Figure 4 illustrates the incident types geographically, where we observe a high concentration of incidents in *Hama*, *Daraa*, *Aleppo*, and *Deir Ezzor*. Again we find one of the most compelling findings the high concentration of incidents in governorates that contain bodies of water. This is especially the case for the *Euphrates River*, which runs through *Northeast Syria* down into *Iraq*. *Homs* has experienced comparatively fewer incidents than its neighboring governorates.

Figure 5 illustrates a hotspot map where we observe a high confidence level of hotspots in the entire *Deir Ezzor* governorate. This means that the proximity of recurring incidents is high and can thus determine that events are not randomly occurring. This further supports the correlation between waterways and conflict, as it suggests that IS activities particularly in *Deir Ezzor* along the *Euphrates* are deliberate, or at least that there is some degree of intention behind their presence there. We can also observe high-confidence level cold spots in the *Latakia* and *Tartous* governorates, which is compelling considering that the national regime is based in the region. The *southwestern* area of the country became insignificant in terms of hot/cold spots.

Conclusion

The temporal scope, categorization, and intensity of activities conducted by the Islamic State in Syria from 2017-2022 were analyzed in this project. **A high concentration of IS events "Hot spots" was observed along the Euphrates, particularly in Deir Ezzor, Mayadin, and Abu Kamal.** The strategic importance of water resources, for both territorial control and transportation routes, was underscored by the research. Additionally, the distribution of geographic power dynamics in Syria and its influence on the focal points of IS activities were taken into consideration. The regional context, such as **the border of Deir Ezzor Governorate with Iraq and its connection to the Euphrates**, was found to be significant, explaining the higher level of IS activity in the region, especially in clashes with other armed groups, such as the Syrian Democratic Forces (SDF), along with Iranian-backed militia groups. The fact that **the national regime is based in the West** was observed to explain why there would be a lower number of incidents **"Cold spots"** and more dispersion in areas like **Latakia**.

This research could be further developed by **compiling data on events of other armed groups besides the Islamic State**, including the activity of other belligerents like Kurdish forces, foreign militaries, militia groups, and the Syrian army itself. The contribution of understanding from the distribution of **ethnic groups and Syrian clan networks** could also be significant. Taking a deeper look into the country's topography with events was suggested to possibly explain more about why incidents are concentrated along certain zones, as observed with water.

Overall, the project points out the complexities of mapping conflict zones and makes **connections between the activities of armed groups and geographical and political characteristics**. These factors can be considered for the activities of the Islamic State in Syria and might also be applied to other armed groups in other conflict zones.

Sources:

- Syria Base map: The Database of Global Administrative Areas. https://gadm.org/
- Islamic State activities in Syria: ACLED Armed Conflict Location and Event Data Project "from 2017 to 2022 Data". https://acleddata.com/data-export-tool/
- Water layer: HUM Data. https://data.humdata.org/dataset/syrian-arab-republic-water-bodies