

Analysis of Gun Usage in BARMM Conflicts

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Abstract—Many gun-related disputes, hostilities, rebellions, and terrorism are barriers to the development efforts being conducted to prepare the region for its impending autonomy. Gun-related incidents are proportionate to the emerging extremism. Tracking conflict incidence and weapon usage, especially of firearms, will aid authorities in identifying at-risk areas and improve the peace & order situation in the region. This study analyzes whether gun-related incidents in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) consist of patterns that determines which areas are prevalent of conflicts. The researchers make use of the data analytics tool, Tableau, in mapping the events on the different municipalities of its five provinces, Maguindanao, Lanao del Sur, Basilan, Sulu, and Tawi-Tawi. Results revealed that Cotabato City in Maguindanao's capital has the highest recorded number of conflict incidents. Moreover, .17 and .30 centerfire and/or rimfire for caliber and start rifles are the most used weapons in BARMM conflicts. Lastly, conflict incidence is reflective of the state of current events in BARMM.

I. INTRODUCTION

Conflicts in Mindanao, specifically in the Autonomous Region in Muslim Mindanao (ARMM), arose during the arrival of the Spaniards in 16th century during the barter trading. The inhabitants of ARMM converted to the religion of Islam and formed a collective identity. Collective identity is described as a distinct separation of a community that draws from their beliefs, cultures and desires [1]. From then on, extremist organizations desired to be the representatives of the Muslim population to fight for their aspirations to be known as the leaders of the ARMM.

In contemporary times, conflicts still arise even if there exist agreements to grant autonomy to the region (hence, the establishment of BARMM) as well as numerous other peace agreements between the Philippine government and the extremist groups [2]. Causes of these conflicts generally are either shadow economies (e.g. illicit drugs, kidnap-for-ransom, illicit weapons, violent extremists), common crimes (e.g. robbery, damage to properties), and identity issues (e.g. clashes between families and clans, religious conflict). Among the conflicts between the groups, gun-related incidents were about 1,343 for years 2017-2018 amongst the other weapons such as explosives and bladed [3]. It appears that the areas that are more prone to violence are the capital cities of each provinces.

This study focuses on gun-related incidents in BARMM and aims to:

1. Analyze patterns on gun-related conflicts through mapping
2. Locate the areas where conflicts occur the most
3. Identify the weapons that are most utilized

II. METHODOLOGY

A. Data & Scope

Geographic and conflict data were taken from the Open Bangsamoro data set provided by Data Ethics PH, as well as the Conflict Alert monitoring system that is run by the Philippines Programme of International Alert, which is an international non-government organization that aims to help local communities undertake peacekeeping efforts within their areas.

For the purposes of this study, data about conflict incidents that took place in ARMM between 2013 and 2017 were used. Examples of conflict incidents are theft, arson, homicide, and assault, to name a few. Focus was placed on weapon usage in conflict because the number of weapons used in the conflicts was recorded at more than half of the number of total conflicts. The types of weapons defined in the data set are bladed, explosive, guns, and others.

B. Results

Initial data exploration yielded several findings. For one, the province of Maguindanao has the highest number of conflicts from 2013 to 2017, with the count recorded at 3,928, followed by Lanao del Sur (2,497), Sulu (1,709), Basilan (1,189), and Tawi-Tawi (432). Cotabato City, which is geographically located in Maguindanao but is considered an independent component city of BARMM, registered 2,754 conflicts in the same period.

There is a significant difference between the usage of guns (5,420) and that of explosives (772), bladed weapons (580), and other types of weapons (564). The count of used guns for each caliber are as follows: 1,523 for .17 rimfire/centerfire, 712 for .22 rimfire/centerfire, 62 for .25 rimfire/centerfire, and 3,122 for .30 rimfire/centerfire.

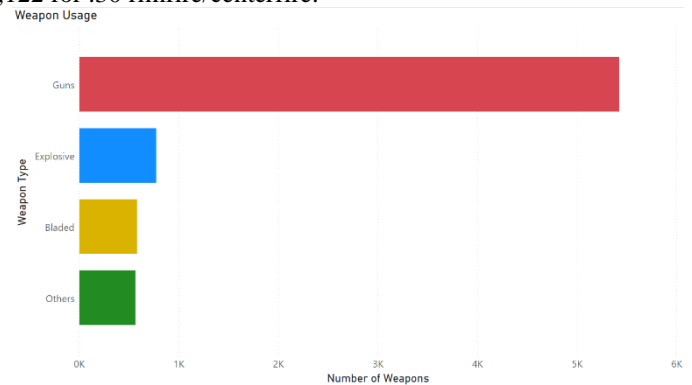


Fig. 1. Comparison of weapon usage in BARMM conflicts from 2013 to 2017

As an example, the following maps show both conflict distribution, as shown by the shade of each municipality, and gun distribution, symbolized by the color and size of the points

in each municipality, in mainland BARMM for the months immediately preceding and succeeding the siege of Marawi City in May 2017.

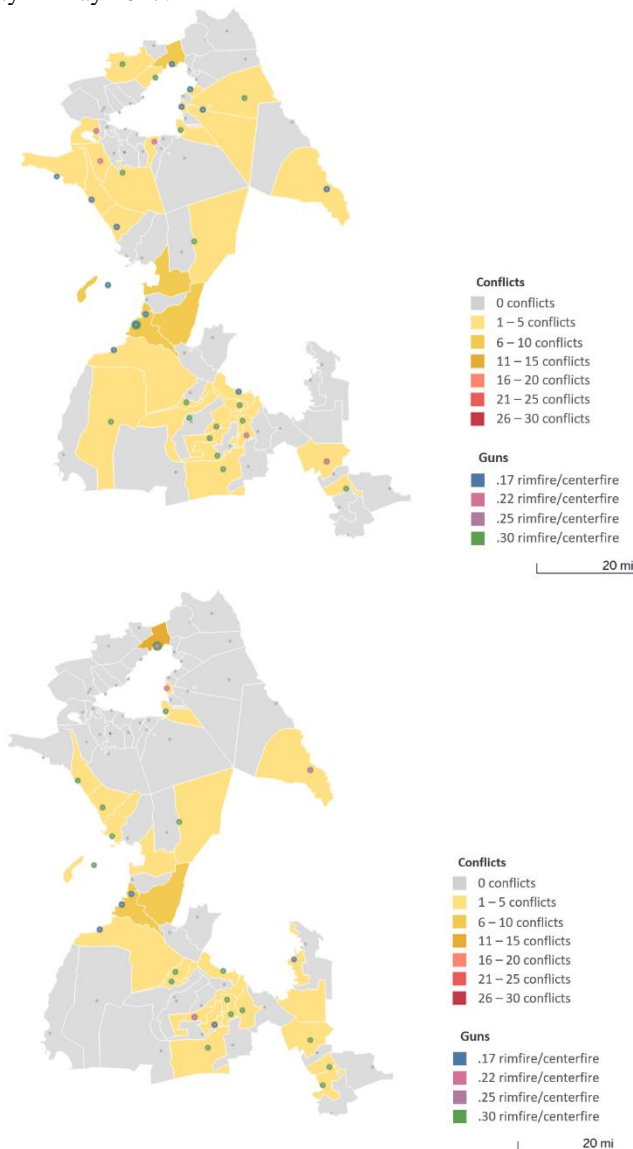


Fig. 2. Conflict and gun distribution in mainland BARMM before (April 2017) and after (June 2017) the Marawi City siege that occurred in May 2017

C. Analysis

Based on the maps, the area of Cotabato City in Maguindanao has the highest recorded number of conflict incidents from 2013 to 2017. Furthermore, conflicts consistently took place in neighboring municipalities within the same time frame. Other potential hotspots to monitor are Lamitan (Basilan), Marawi City (Lanao del Sur), and Patikul (Sulu).

Guns, specifically .17 caliber rimfire/centerfire and .30 caliber rimfire/centerfire rifles, are the most used weapons in conflicts. Distribution is also heavy in conflict hotspots, which is consistent with the number of conflicts recorded there.

Major events that occurred in the region, such as the ARMM general elections in 2016 and the 2017 siege of Marawi City,

contribute to both conflict and gun distribution. In Figure 1, it shows before the Marawi Siege, conflicts are scattered throughout Lanao del Sur and Maguindanao. Marawi and Cotabato are the cities with the greatest number of conflicts in their respective provinces. Figure 2 shows similar distributions. Minor conflicts between the government and rebel forces occurred before and after the major event of the Marawi City siege, which explains the number of conflicts and the gun usage tallied in the months preceding and succeeding the said event.

III. CONCLUSION

There are several insights to be taken away from the study. The study identified multiple conflicts hotspots such as Cotabato City (Maguindanao), Lamitan (Basilan), Marawi City (Lanao del Sur), and Patikul (Sulu). Guns were heavily utilized ahead of explosives and bladed weapons. .17 and .30 caliber rimfire/centerfire rifles tallied the highest usage. The number of conflicts is consistent with the major and minor conflicts that preceded and succeeded major events in the region.

IV. RECOMMENDATION

To address the insights uncovered in this study, authorities may establish more checkpoints in conflict hotspots and their surrounding areas. The implementation of stricter firearm ownership policies must also be explored, as well as a review of existing firearm ownership licenses.

The contributors also recommend the collection of conflict data from 2018 and 2019. Background data (i.e. affiliations, ethnicity, etc.) of the actors involved in conflicts may also prove useful in explaining why conflicts occur in certain areas and how authorities can mitigate them.

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