IMPACTS of Conflict: Vulnerable regions to conflict in Syria from 2011 to 2019

Background

The “Worst man-made disaster since World War II” (UN News, March 14, 2017) is ongoing in Syria today. More than nine years have passed since the civil war broke out there in 2011. We see a lot of impacts by the conflict on Syria as many battles break out in Syria. Especially, many demographic changes have happened in Syria. The UN’s special envoy for Syria, De Mistura, mentioned in 2017 that more than 400,000 people died due to conflict in Syria. According to the United Nations Refugee Agency, 6.2 million people in Syria have become internally displaced persons (IDPs), and 5.5 million people have fled from Syria as refugees (UNHCR, February 14, 2020).

This project aims to identify sub-districts in Syria that are largely affected by conflict focusing on the population change, number of battles that happened, number of IDPs, number of people in need, and the number of fatalities in Syria. It will help the international organizations and actors to work for supporting people in those affected areas.

A question that this project aims to address is: which sub-district in Syria is most affected by conflict?

Methods

This project uses vulnerability analysis. Vulnerability to the conflict in Syria is measured by five factors: number of battles, number of fatalities, number of IDP flows, number of people in need, and rate of population changes. The number of battles is data from 2011 to 2019 issued by ACLED, which contains XY information used for special join to a sub-district boundary layer. As the data of fatalities from 2011 to 2014 and data from 2017 to 2019 are obtained from different sources, each is analyzed separately. Data of fatalities from 2011 to 2014 is a vector point data and used spatial join, while data of fatalities from 2017 to 2019 is an excel data obtained from ACLED. The number of IDP flow from 2017 to 2018 is obtained from the UN organization via Humanitarian Data Exchange. The number of people in need is data issued by the Syria Humanitarian Needs Overview. The rate of population changes was measured by data of 2011 and 2016 by using the field calculator.

Each factor is ranked from 3 (most vulnerable) to 0 (least vulnerable) by classifying based on natural breaks. After scoring each factor, the vulnerability that is based on six factors is measured by adding each number, and it has been classified to a score of 0 to 15. Then this project re-classifies it to 5 (high vulnerability) to 1 (low vulnerability).

Results

There was some limitation of sources. Population data during a conflict time was only available to the governorate level. Population change from 2011 to 2016 had to be conducted by the governorate level. Accordingly, normalization of each factor could not have been done due to a lack of population data by sub-district. Additionally, fatality data was only available from 2011 to 2014 and 2017 to today, each from different data sources. In addition, both the number of battles data and IDP flow data are available from 2017.

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