Provincial Socioeconomic Vulnerability in Angola

The Fletcher School of Law and Diplomacy

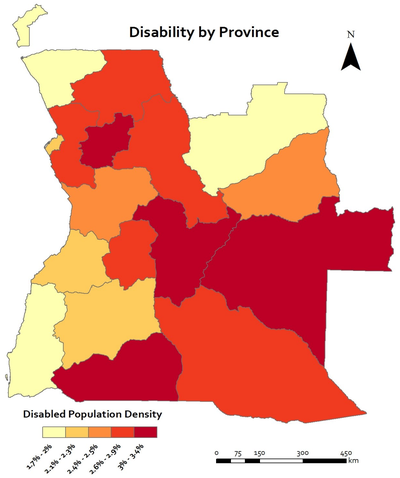
Introduction

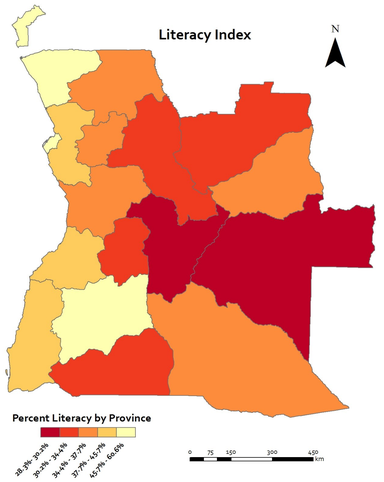
In 2012, Angola "graduated" from Least Developed Country Status according to the UN. Lags in socioeconomic development can be tied to the recent end to a civil war (2002) , leftover land mines, and government corruption that prevents public funds from being used on necessary public services. Most of the focus on urban development in the aftermath of the civil war focused on the capital city of Luanda, which is in the province of the same name, though 56% of the population lives in rural areas, according to 2015 World Bank Data.

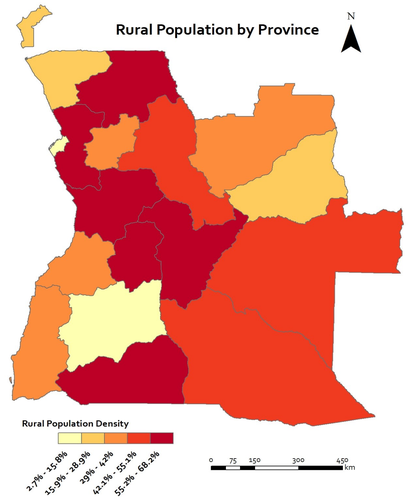
An updated assessment of where the most vulnerable populations live in rural Angola could help to better understand development needs. As the economic situation in Angola continues to fluctuate due to the volatile global oil market, it is likely that people who were not deemed "vulnerable" 5 years ago may now be vulnerable or in the coming years. This leads to the need to answer two spatial questions: **1) Which provinces in Angola have the most vulnerable populations?** ***and*** **2) Where are the most vulnerable provinces located relative to the capital city?**

Methodology

To answer these questions, I created a Vulnerability Index using tabular data from the 2014 Angola Population and Housing Census (Recenseamento Geral da População e Habitação). This data was collected on a household level by province, so I aggregated it to represent provincial results. After cleaning the data, I joined the data from each individual vulnerability criterion to level 1 GADM administrative boundaries (province). I chose the criteria for the Vulnerability Index based on both common indicators of vulnerability and available data. These criteria were: disability*; literacy; and rural domicile and they were equally weighted in the overall scoring. *Disability was a criterion due to the prevalence of leftover landmines in the country and used as a proxy for health. Rather than counting the number of people within each criterion, I determined the population density for each category and normalized the count by the total provincial population. For all categories except literacy, a high population density per criterion demonstrates a higher vulnerability. It should also be noted that the literacy index was determined by adding together respondents who indicated that they could both read and write.







Limitations

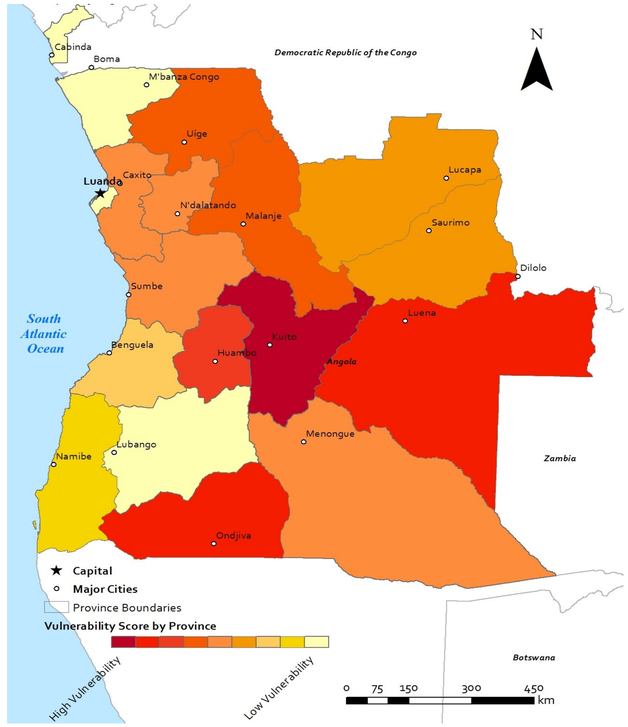
Limitations included the size of the survey data file, the quality of the survey data and the fact that this cannot be representative of the entire Angolan population as only a percentage of the total population responded to the survey. There are also a plethora of additional indicators of socioeconomic vulnerability that are not captured here that could very well change the results.

Conclusions

The Summary Index Scores clearly indicate that Bié is the most vulnerable province based on these criteria, with a score of 0. Bié is consistently in the most vulnerable category for each criterion. This also indicates that Luanda, the province where the capital is located, is the second *least* vulnerable, though it receives the most resources through public spending. Also, generally, provinces get more vulnerable as they get farther away from the capital city.

Cartographer: Ayla Francis
Class: DHP P207—GIS for International Applications
Date: May 8, 2017
Projection: WGS 1984 UTM Zone 33S
Sources: Angola National Institute of Statistics (2014), GADM, Gridded Population of the World, The World Bank

Vulnerability Index Results



Vulnerability Index Scores by Province	
Score	Province
0	Bié
1	Cunene
1	Moxico
2	Huambo
3	Malanje
3	Uíge
4	Bengo
4	Cuando Cubango
4	Cuanza Norte
4	Cuanza Sul
7	Lunda Norte
7	Lunda Sul
8	Benguela
9	Namibe
11	Cambinda
11	Huíla
11	Luanda
11	Zaire