Living for the City

A Spatial Analysis of Youth Rural-Urban Migration in Ethiopia

Background

Ethiopian youth are increasingly moving from rural areas to cities like Addis Ababa in search of economic opportunities. Some of the factors which influence youth decisions to migrate include shortage of land access, lack of educational and non-agricultural employment opportunities, prevalence of early marriage, rural livelihood shocks like drought and famine, poverty, school dropout, ethnic conflict, proximity to main roads, and high population densities. This spatial analysis accompanies a mixed methods study conducted in Addis Ababa in June-August 2018 focused on the livelihoods of youth after their migration.

Spatial Question

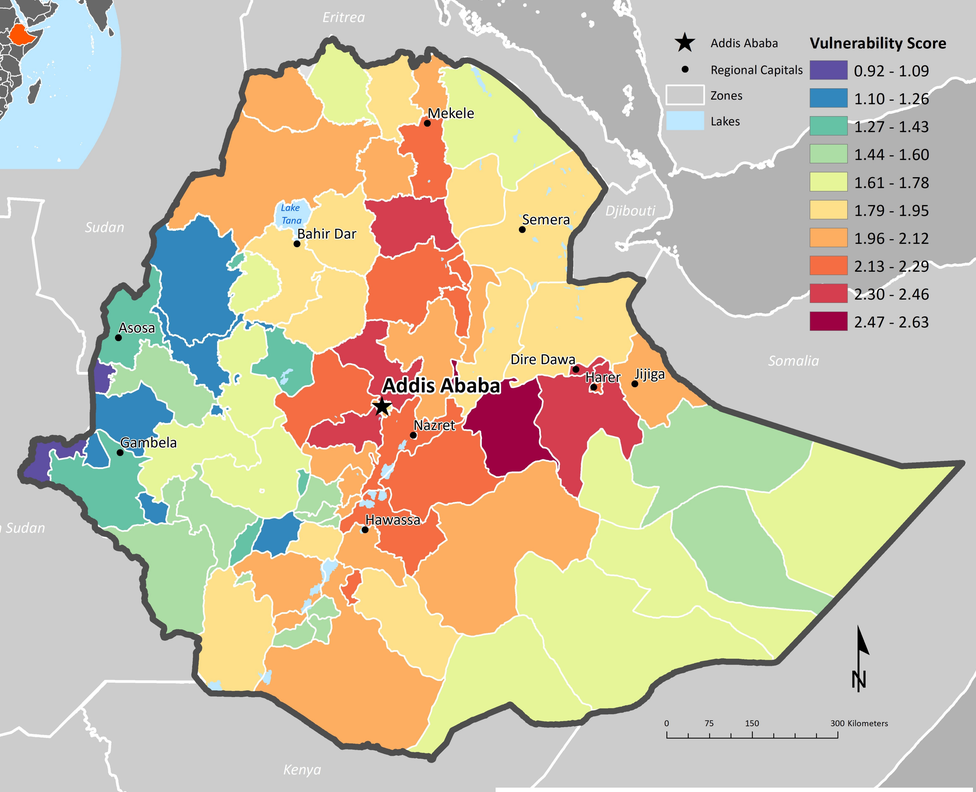
Where are the zones in Ethiopia in which youth have been most likely to migrate to Addis Ababa, between 2013-2018?

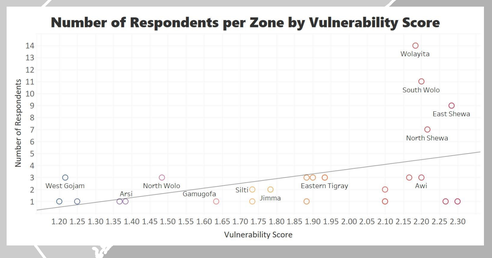
Methods

To create a vulnerability index, I selected eleven total indicators which, based on the literature and my own primary data collection, contribute to youth migration decisions. The indicators fall along three different dimensions: 1) socioeconomic risk factors, 2) susceptibility to shocks, and 3) ease of migration to Addis Ababa. The majority of these indicators were calculated using 2007 census data tabulated by Administrative Level 2 (zones), but a few layers required additional analysis using XY point data, raster calculation, and network analyst.

Each indicator was then assigned a score from 0 to 4, with 4 being the highest vulnerability and 0 the lowest. I then created an average socioeconomic score and an average shock score, and calculated a weighted average for each of the three categories as follows: ((average socioeconomic*0.5) + (average shock*0.4) + (ease of migration*0.1))/3. The final vulnerability score has a possible range of 0-4, with values closest to 4 indicating zones where youth might be most likely to migrate to Addis Ababa.

Zones from which Youth are Most Likely to Migrate to Addis Ababa





Created by: Sarah Carson, DHP P207, GIS for International Applications, May 2019

Sources: Armed Conflict Location and Event Database 2013-2018, Famine Early Warning Systems Network IPC 2013-2018, Ethiopia Central Statistical Agency 2007, UN OCHA, WorldPop 2010 and 2015, World Food Program GeoNode 2017, Humanitarian Data Exchange, World Bank, "City" by Les vieux garçons from the Noun Project

Projected Coordinate System: Adindan_UTM_Zone_37N

Results

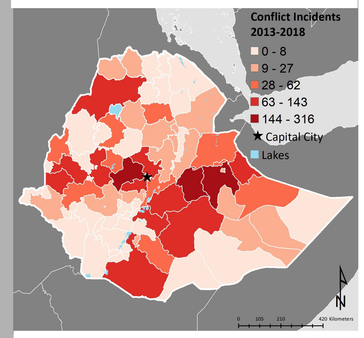
The final map demonstrates that the highest vulnerability to migration is focused around several zones in central and Eastern Oromia region as well as Amhara region. The zone with the highest vulnerability is West Hararghe, which has particularly high rates of food insecurity, conflict, poverty, and birth rates. The areas with lowest vulnerability to are largely on the periphery. This aligns with the literature, which demonstrates that these youth, if they do choose to migrate, are more likely to migrate to bordering countries such as Somalia, Djibouti, and Sudan.

There is also a statistically significant positive correlation between areas with high risk for migration and areas which have the highest representation in my primary data collection (p=0.032). However, there are a few outliers, the most notable being Wolayita. This zone had the highest representation in the quantitative survey, at 14 respondents, but ranked 52nd out of 95 zones in terms of vulnerability.

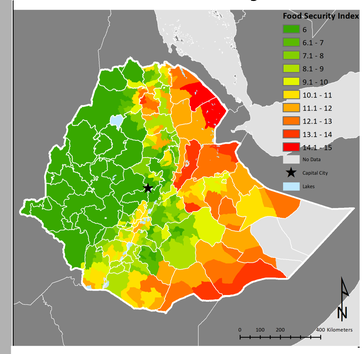
This mismatch could be due to the non-random sampling procedures of the survey or also indicate that the geospatial analysis has failed to take into account certain cultural factors in places like Wolayita which contribute to migration, but are not readily measurable. An additional limitation is that the last census took place in 2007, and much has shifted in the context since then.

Shock Vulnerability Indicators

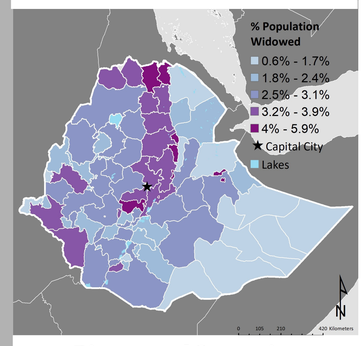
Conflict



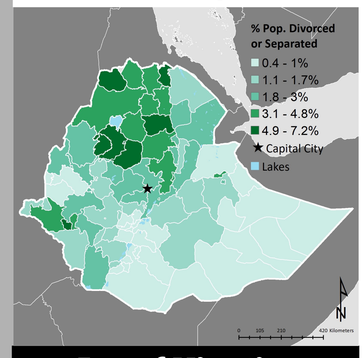
Food Insecurity



Death of Parent

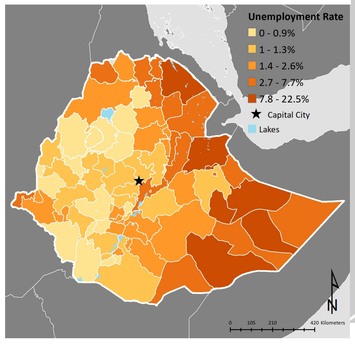


Divorce and Separation

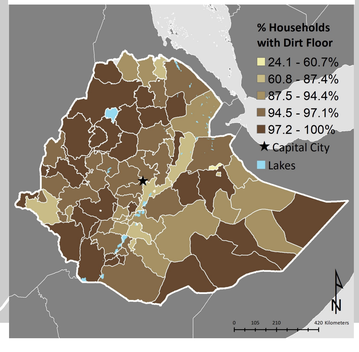


Socioeconomic Indicators

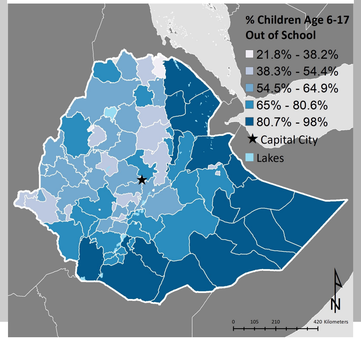
Lack of Job Opportunities



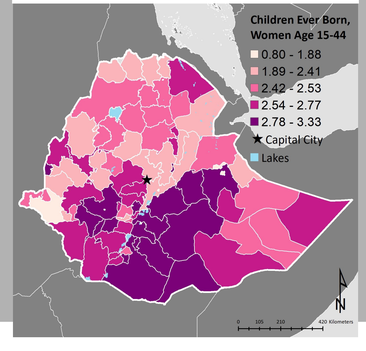
Poverty



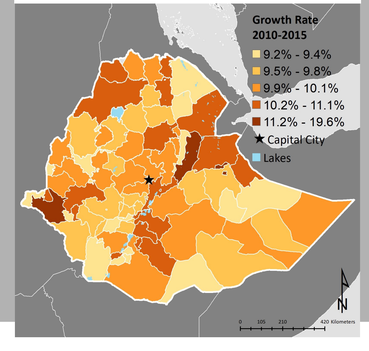
Drop-out Rates



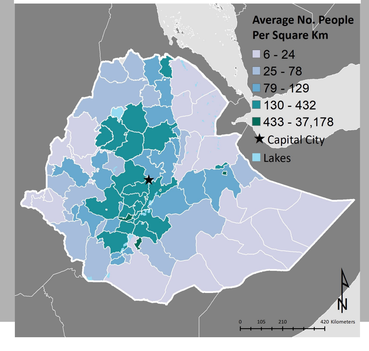
Birth Rates

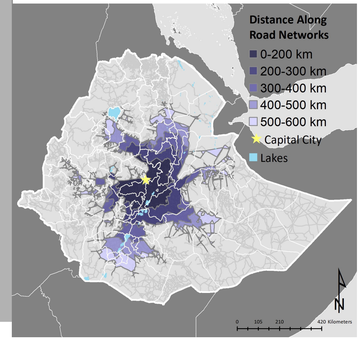


Population Growth



Population Density



Ease of Migration

Proximity to Addis Ababa