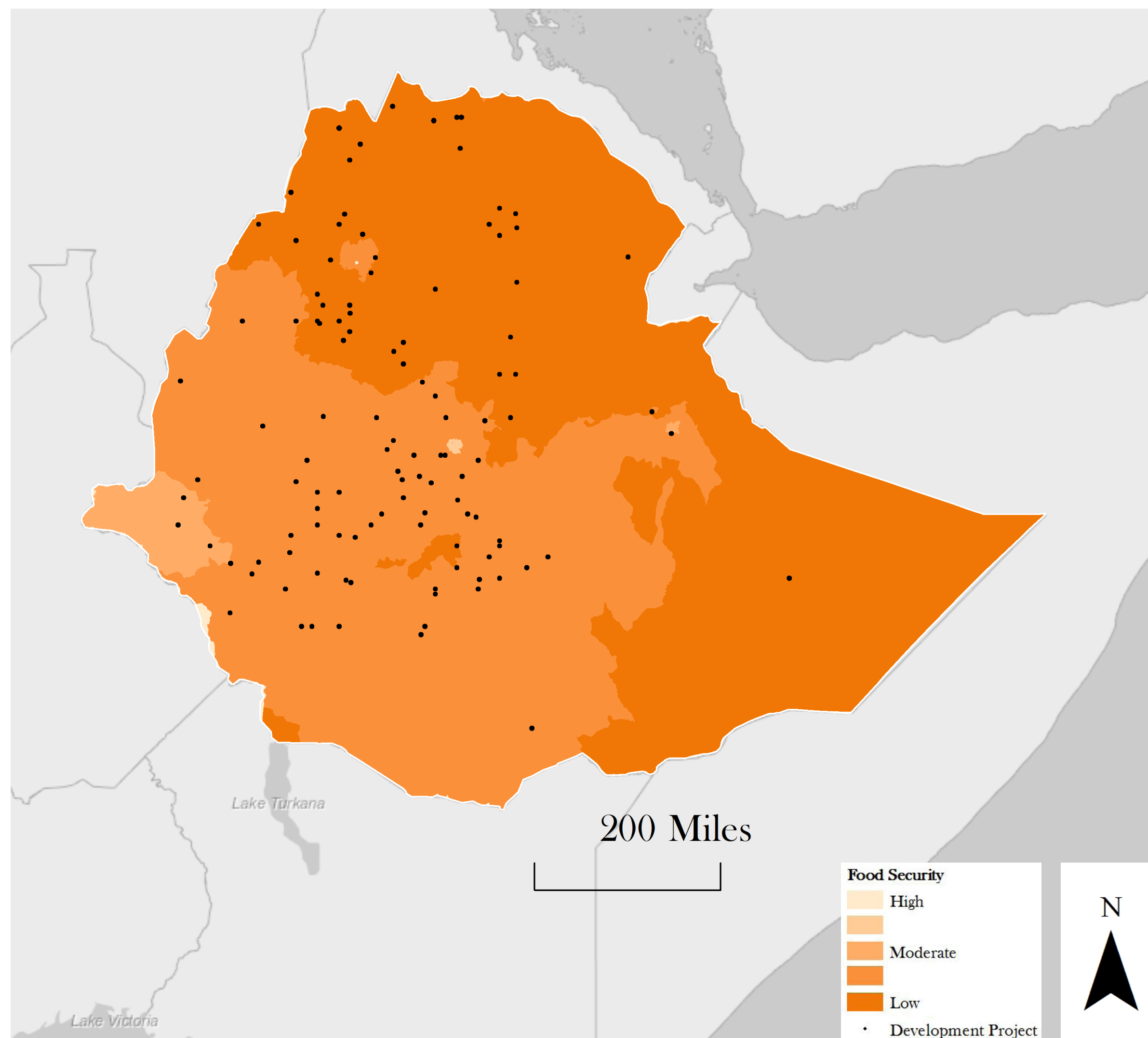


International Aid Response to Food Insecurity in Ethiopia



Introduction

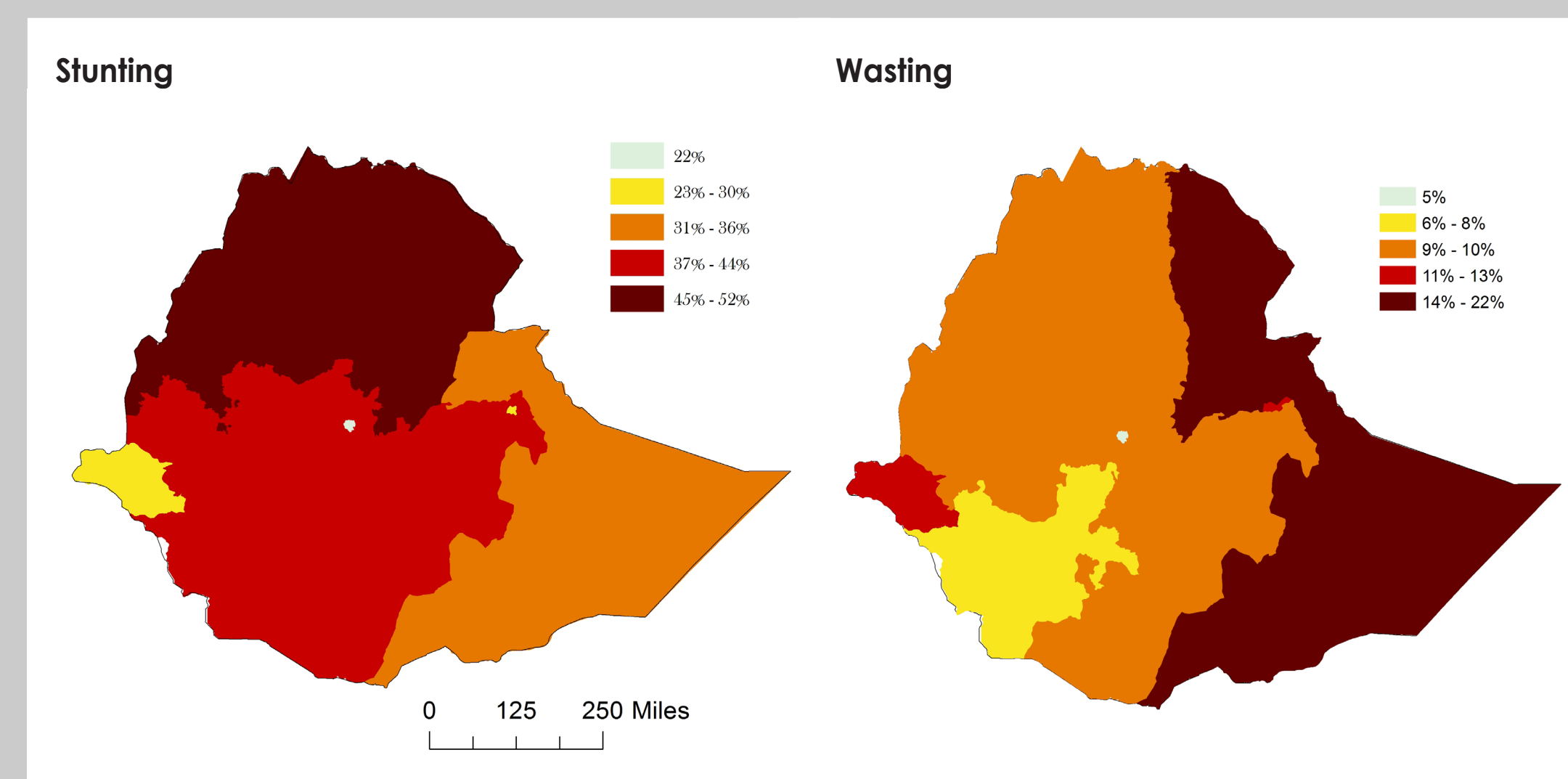
The well-known Ethiopian famines of 1983-1985 and 2003 are recent examples of a seemingly reoccurring history of food insecurity. Most farmers in Ethiopia live from harvest to harvest, thus making them particularly vulnerable to droughts. Currently, Ethiopia is experiencing food security stress following low agricultural production in 2013 caused by three to four consecutive inadequate rain seasons.¹ Similarly, delayed rains in the beginning of 2014 are anticipated to decrease labor income during the lean season between harvests when stocks are often diminished.²

International aid efforts in Ethiopia have intensified in the last several years. Since 2000, over \$23 billion USD has been loaned or granted to Ethiopia for projects intended to improve food security.³ The focus of these projects range from agriculture and rural development to basic nutrition as a response to the estimated 44 percent of the population undernourished.⁴ The purpose of this spatial analysis is to assess if food security aid is targeting the regions that are experiencing the most need.

Methodology

The resultant map combines the data presented in the 'Poverty Severity Index,' 'Food Security Outlook,' 'Stunting' and 'Wasting' maps as a suitability analysis for food security aid. Overlaid with location data for existing food security aid projects, this map may help determine the appropriateness of existing aid.

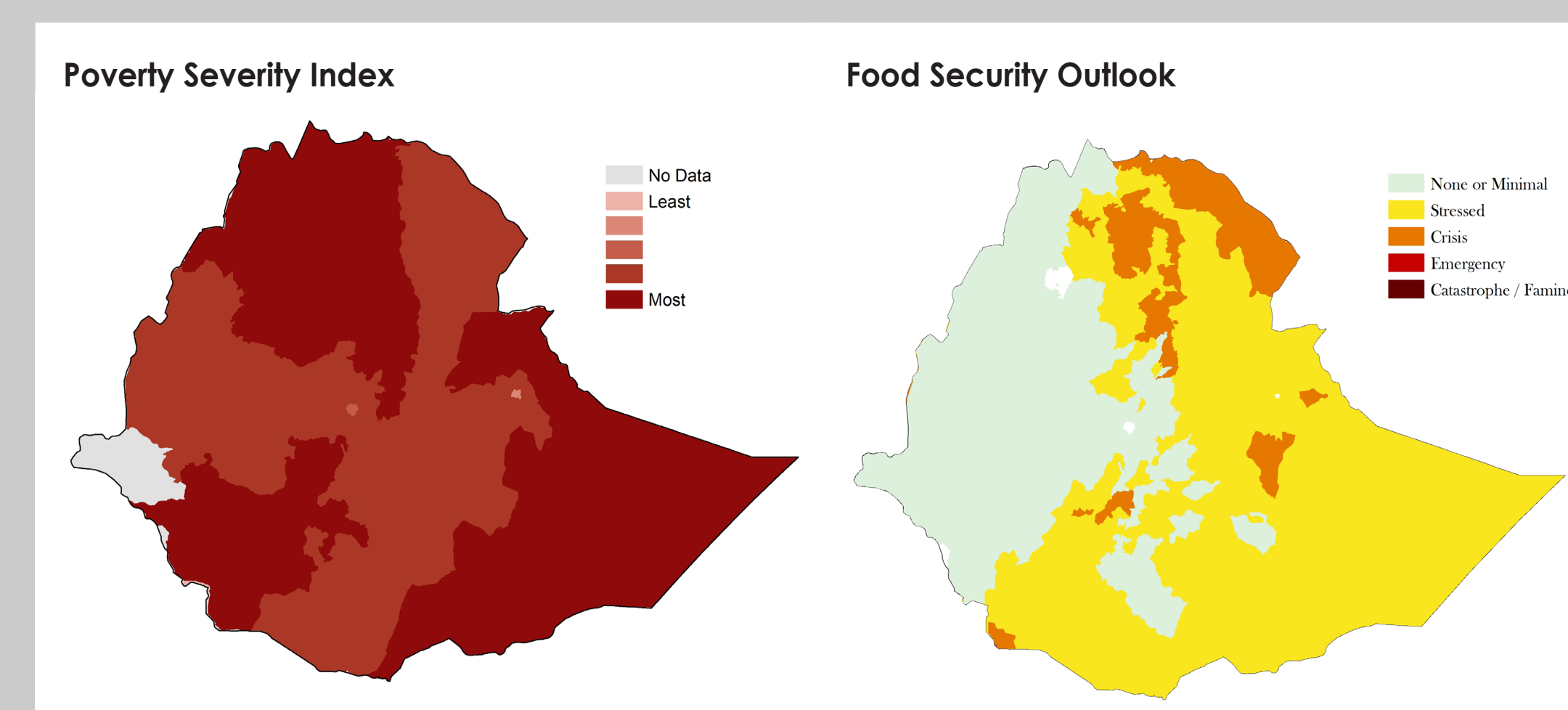
1. To determine the areas of most need of food assistance, I assessed vulnerability to food insecurity and the prevalence of stunting and wasting.
 - a. Nutrition outcomes⁵ were based on household statistics compiled at the level of administrative regions. Children under five years were classified as malnourished based on the following anthropometric indexes:
 - i. Stunting - This map shows the percentage of children whose height-for-age is two standard deviations below average.
 - ii. Wasting - This map shows the percentage of children whose weight-for-age is two standard deviations below average.



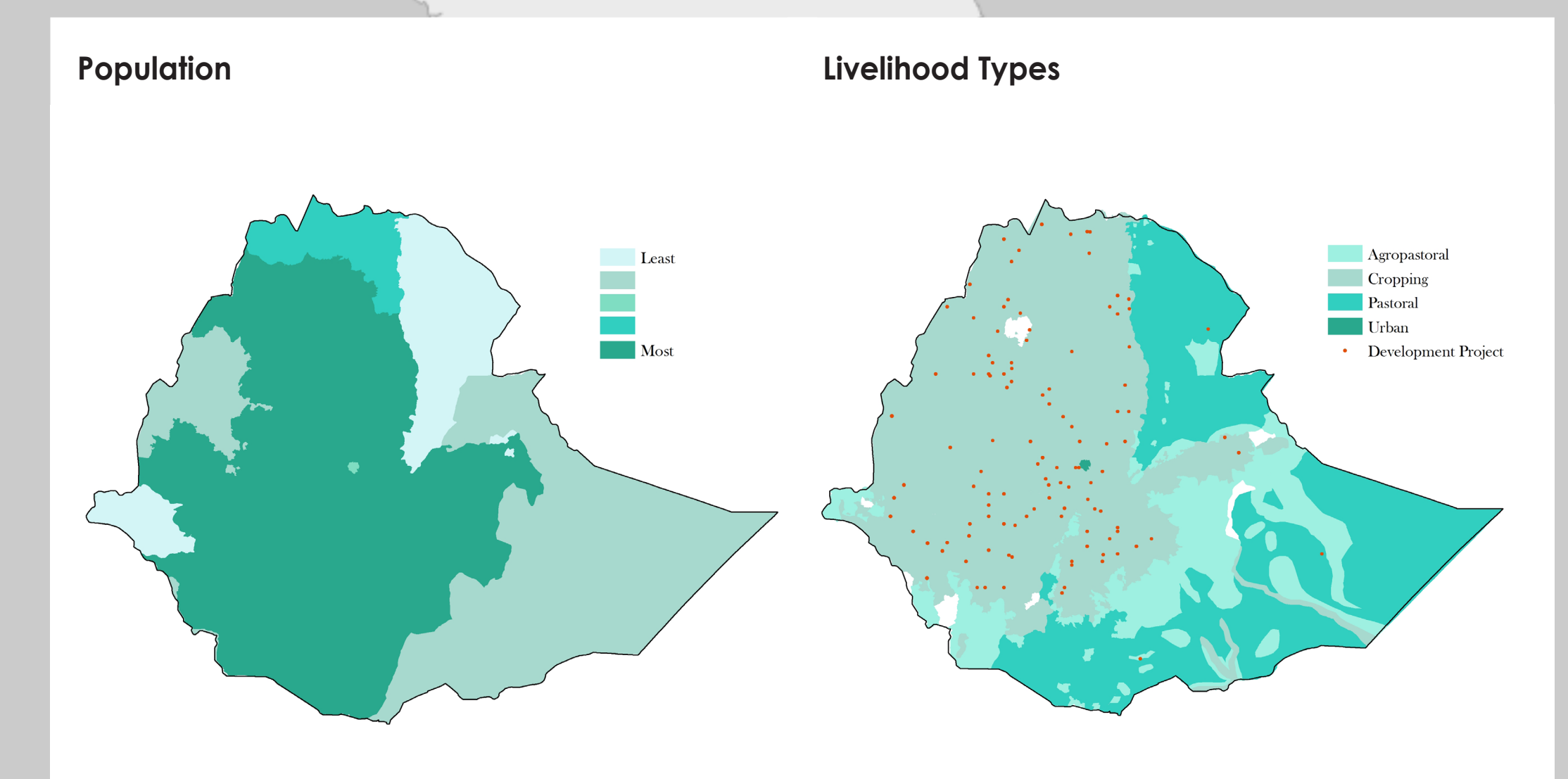
b. Vulnerability to food insecurity was largely based on poverty statistics⁶ at the administrative level and the Food Security Outlook.³

- i. Poverty Severity Index - A measure of poverty that attributes more weight the further a person falls below the poverty line of 2005 Purchasing Power Parity of \$2 per day.
- ii. Food Security Outlook - A product of a comprehensive scenario development that considers rainfall, harvest, staple food and commodity prices, seasonal labor demand, livestock health, government assistance and political conflict to predict the ability of people to buy or produce food.

For April to June 2014, the outlook anticipates the area designated as Crisis due to a late start to the Belg rains, the rainy season which occurs between February and May, and its resultant delay in planting and decreases in herd sizes. The Stressed regions are attributed to delays to the Sugum/Diraac rains, which reduced forage growth and water availability, as well as compromising livestock health. For many households in the regions of None or Minimal food insecurity, staple food has maintained a normal supply and stable price since January 2014.



2. I assessed demographics of population statistics⁶ and livelihood practices.⁷
 - a. Population - Portrays population statistics at the level of administrative regions.
 - b. Livelihood Types - Characterizes regions by the ways in which locals obtain food and income and engage in trade, whether agropastoral, cropping, pastoral or urban livelihood types. Locations of international aid projects focusing on food security predominate in western Ethiopia.



Limitations

The GPS coordinates available regarding international aid for food security projects varied in quality – some represented specific locations while others covered a general geographic area. Furthermore, the data did not provide enough information to divide the projects by subcategories, such as, agricultural extension or food aid projects. Most datasets provided subnational information at the administrative region level rather than smaller districts or woredas. The Food Security Outlook focuses on six month predictions, and therefore may not provide the year or multi-year forecasts needed for deciding aid projects, which require significant time from fund allocation to implementation.

Conclusions

This analysis demonstrates that food security aid is not necessarily targeted to those in the most severe poverty. The nutrition outcomes of stunting and wasting, most prevalent in the north and east respectively, are also not a determinate of international aid. Rather, aid is concentrated in the most heavily populated parts of the country, perhaps because of the ease of accessing beneficiaries, and where cropping is the most common livelihood type.

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Coordinate System: GCS_WGS_1984