

The Best and Worst Places for Disabled People

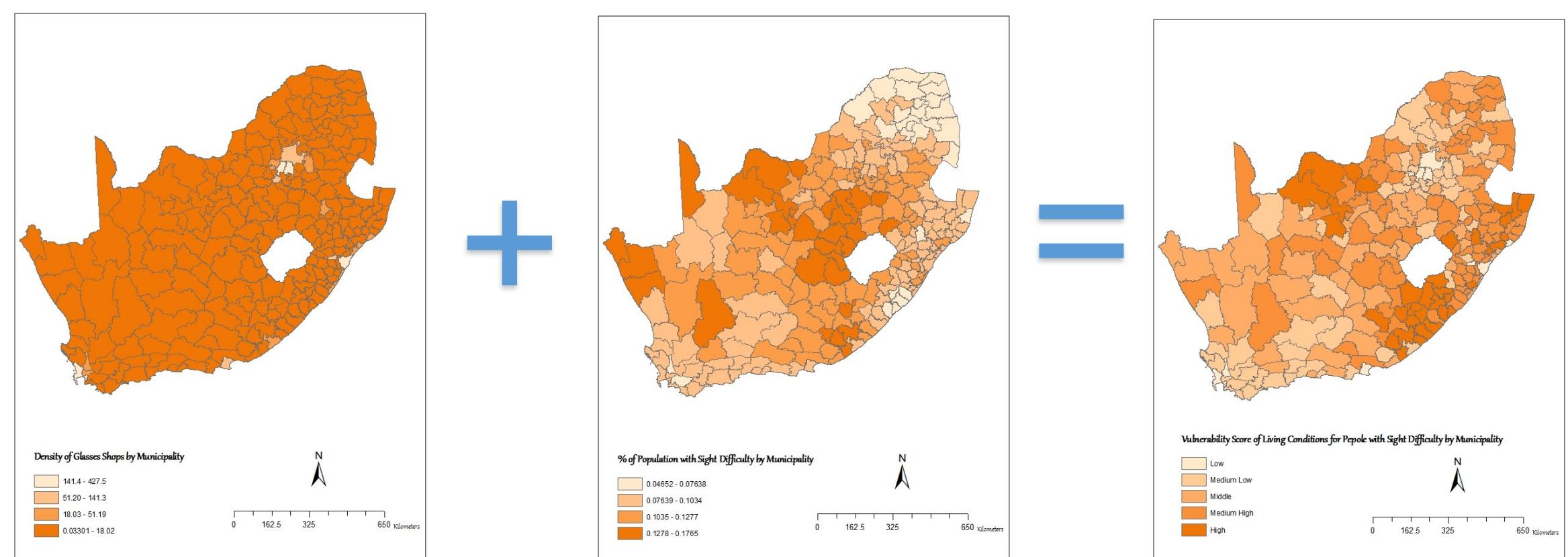
The Living Conditions of Disabled People in South Africa, 2011

Project Goal

Globally, people with disabilities are facing not only difficulties in everyday life, but also problems in accessibility to assistive devices. According to the Research Brief on Disability and Equality in South Africa (SA) 2013-2017, disabled people with disabilities in South Africa further continue to experience exclusion from full participation in society.

This project does not aim to provide a systematic analysis for disabled people to solve all the inequalities and problems. Instead, it shows the information of living vulnerability and accessibility to assistive devices by multiplicity in South Africa and of where is suitable for disabled people to live. This project only focuses on three types of disabled people: people with eyesight problem, people who need hearing aid, and people who need a wheelchair. These people can live alone in the places with good living conditions and high accessibility to assistive devices and the data in this project is more valuable to them.

Vulnerability for People with Sight Difficulty



Vulnerability for Normal People

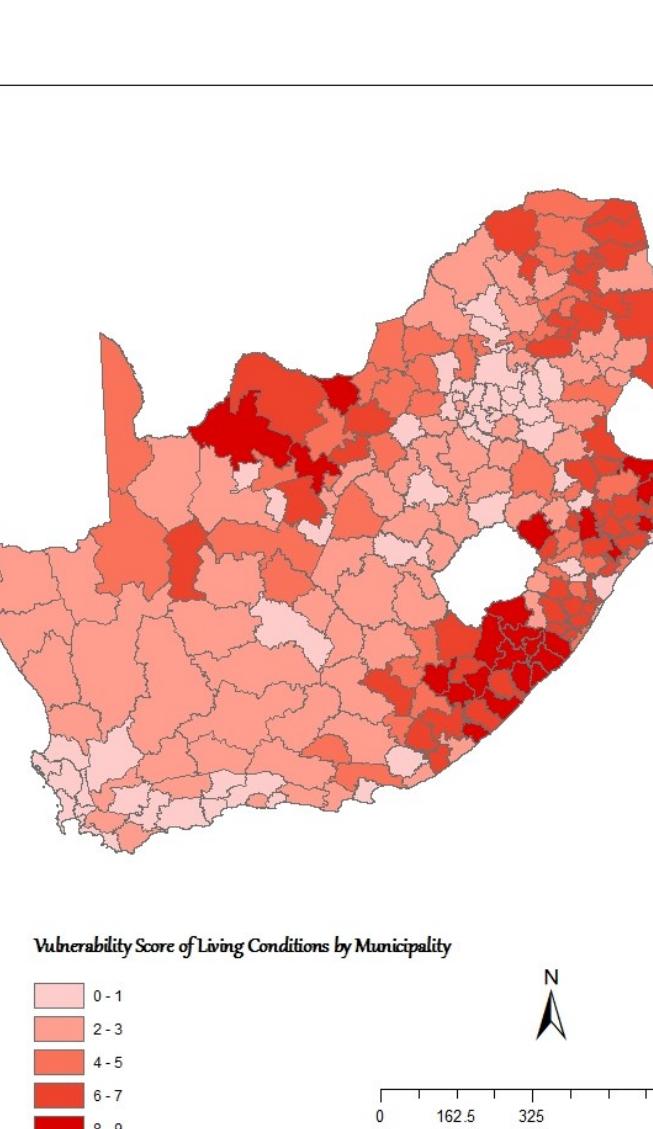
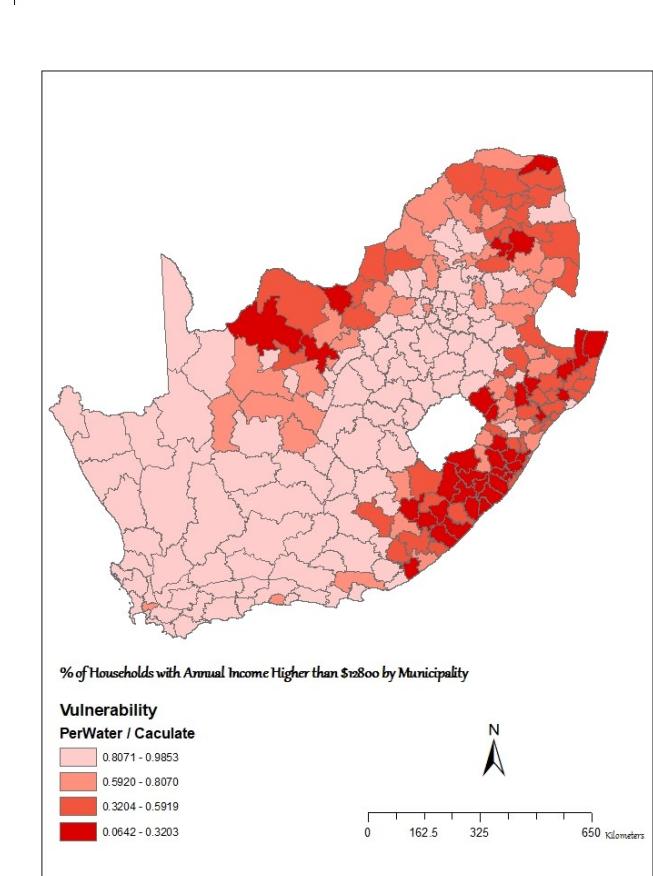
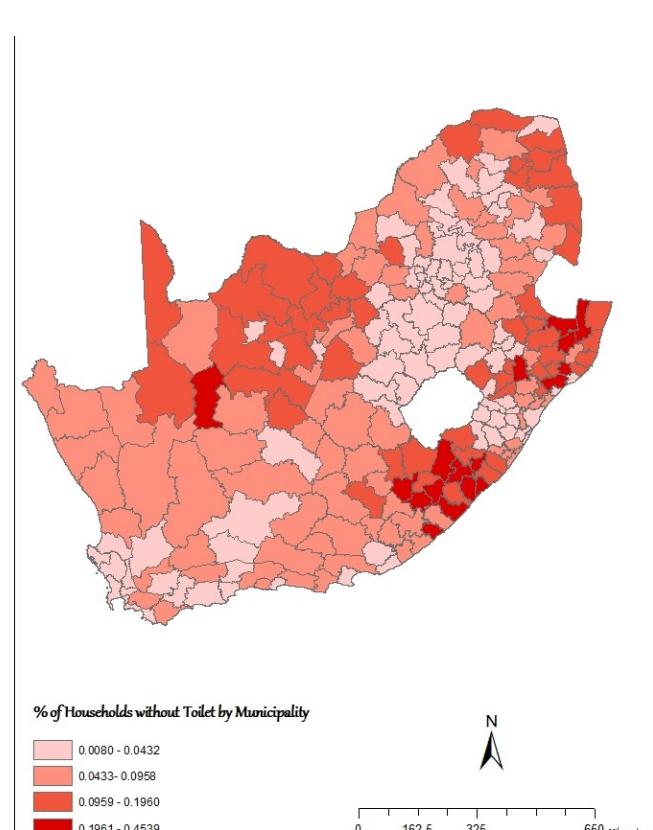
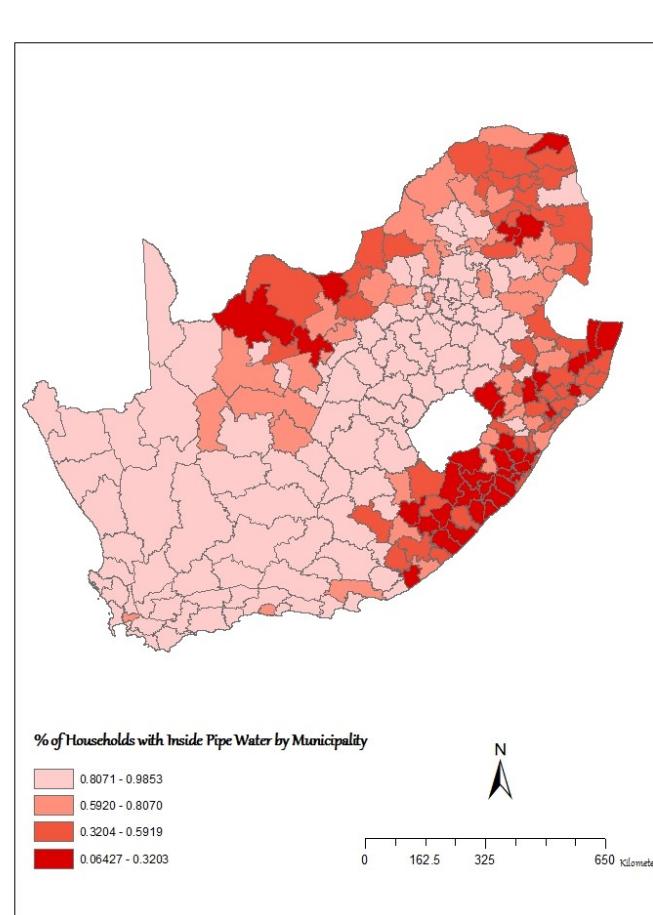
Three conditions are considered in evaluating the vulnerability of living: the number of pipeline water inside a yard by household, the number of households without toilets, and the number of high annual income by household in every municipality of South Africa.

Pipeline
Condi-

Toilet
Conditions

Annual
Income

Vulnerability
Score for Nor-
mal People
Living



Optimal Places for Disabled People

Total Population of People with Sight Difficulty

High Vulnerability
Medium High
Vulnerability
Medium Low
Vulnerability
Low Vulnerability

5,072,391
10,815,485
9,029,356
20,135,876

Total Population of People with Hearing Difficulty

5,060,691
8,408,056
8,265,417
20,024,316

Total Population of People with Walking Difficulty

3,956,530
7,951,203
7,834,506
19,812,426

Results and Findings

This project shows the best places and worse places for different groups of disabled people to live in South Africa. The best places for disabled people are not only those municipalities with indoor pipeline water, toilets and high annual income, but are also those locations with highly accessibility to the aid facilities.

From the maps, about half the municipalities are in low or medium low vulnerability.

According to the table, the population of disabled people who live in low or medium low vulnerability places are more than that in the high

Methods

The following tools were run to explore the situation and results:

Joint: to join all the related data to the boundary layer

Field Calculator: to calculate the rank of each group and the vulnerability of living conditions

Statistics: to sum and calculate the total number of disabled people in optimal places

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Projected Coordinate System: WGS 1984 UTM
Zone 35S

Data Resources: Statistics South Africa, Eris, USGS, NOAA, Garmin, NPS, Proprietary data obtained by Tufts University for academic use