Radicalization in the Rif: identifying high-risk areas for extremism in northern Morocco

Introduction

Known for its lawlessness and recalcitrance towards ruling authorities, Morocco's mountainous northern region, known as the Rif, has been a hot spot for radicalization and violent extremism. The Rif has historically been difficult for the Moroccan central government to control. Local farmers grow cannabis with impunity and drug and other illicit trafficking routes pass through the Tangier port and Spanish borders. The region has also been neglected by central government in Rabat, with fewer investments in infrastructure and economic development. Although King Mohammed VI has made significant investments in the Rif in recent years, there remains a conservative, anti-government sentiment among the population.

The Rif has been linked to several terrorist attacks in recent years including the incidents in Brussels and Paris. Perpetrators in the attacks either grew up in the Rif or had families from the region. Also, an estimated 1,500 Moroccan citizens have left the country to fight alongside ISIS and other militant groups in Syria and Iraq, one of the highest numbers of any country in the world.

As the threat of ISIS-inspired attacks and violent extremism against Western targets increases, it is vital to know the origin of radicalized individuals. Using socioeconomic indicators, locations of past conflicts, and access to government services, this project identifies areas in northern Morocco at greatest risk for radicalization and potential extremism.

Methodology

This project uses a set of criteria to determine likely areas of radicalization of the local population. These criteria are demographic indicators of radicalization from the 2004 Moroccan national census (unemployment rate, number of households below the poverty line, percentage of unmarried males over 15 years old, and illiteracy rate), proximity to major roads and government services (schools, hospitals, police stations, libraries), and locations of prior political violence (riots/protests, violence against civilians, terrorist attacks).

Demographic indicators were scored using natural breaks in the data on a scale of 1 (highest risk of radicalization) to 5 (lowest risk). This allowed the different indicators to be displayed by commune and added together to create an overall demographic risk score.

Anti-government sentiment and the risk of radicalization likely increases as the average proximity to roads and government services increases. Data was gathered from publically available OpenStreetMap locations of points of interest and roads. The distance of each pixel on the map from government services and roads were calculated, averaged, and then scored within commune boundaries.

Conflict data from the Armed Conflict Location and Event Data Project (ACLED) from 1997 to 2015 was used to determine the density of conflict incidents. The greater the density of past conflicts the more likely the population in that area will have experienced political violence or participated in riots or protests. Conflict density was calculated and then scored on a scale of 1 to 5 (again, highest to lowest) using natural breaks in the data.
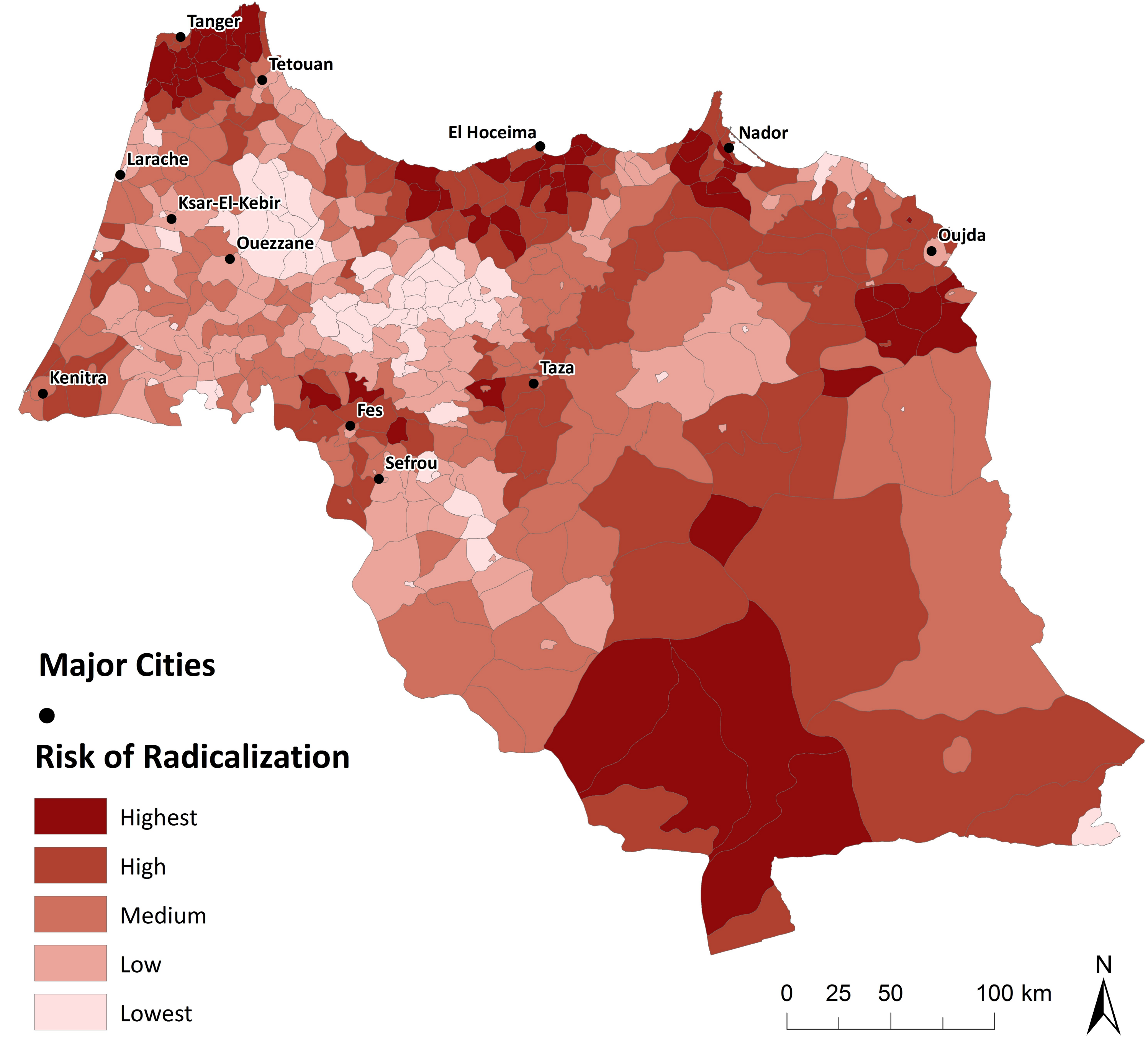
Lastly, the three sets of criteria - demographic indicators, access to government services and roads, and conflict density - were added together in a weighted formula (with more emphasis on demographics and access to government services) to produce and overall radicalization risk score. This score was then classified into a final 1 to 5 scale (highest to lowest risk) using natural breaks.
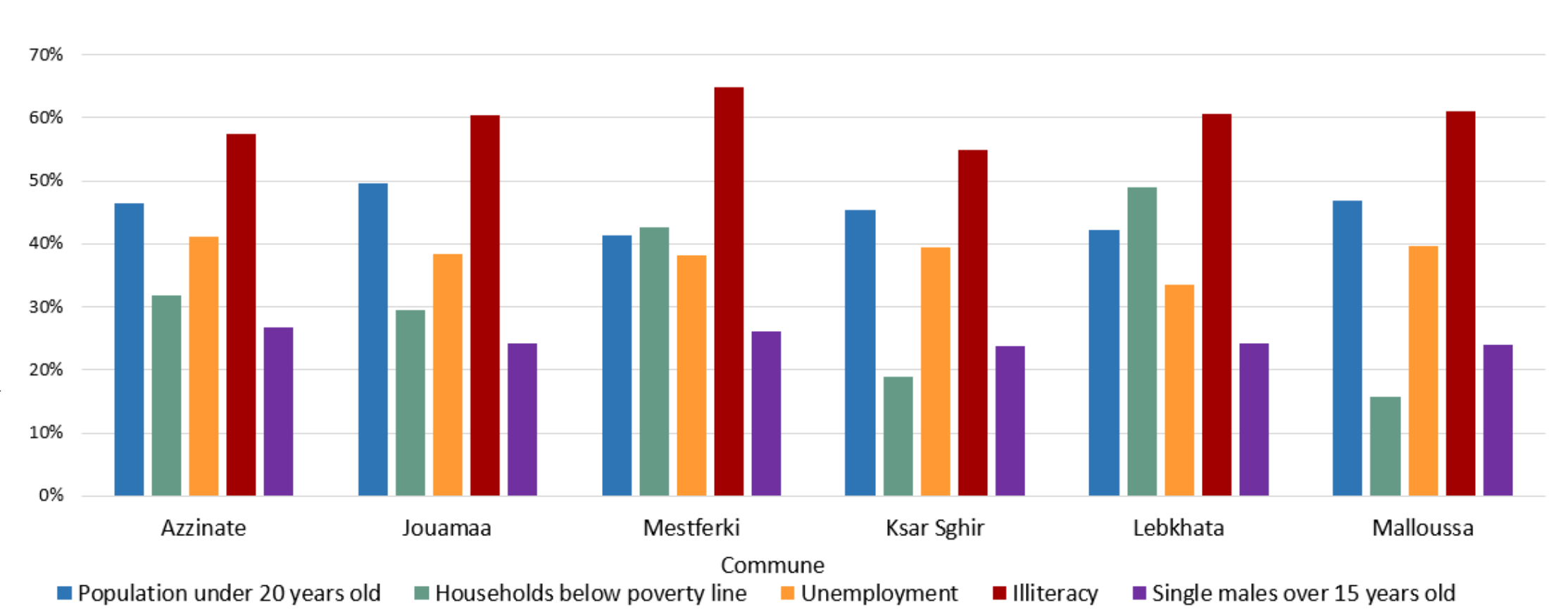
Results

The results of this analysis show that the highest risk areas of radicalization are located primarily in the suburbs of major cities, in particular Tetouan, Tangier, Nador, El Hoceima, and Fes. With the exception of Fes, all of these cities are located in what is considered the heart of the Rif region. High risk in suburban communes suggests that proximity to government services and schools

The highest risk areas are concentrated in communes that contain high conflict densities.The ACLED conflict data has many points located in cities and population centers and very few or no points in rural areas and communes. This may have skewed the final risk map towards more urban areas.
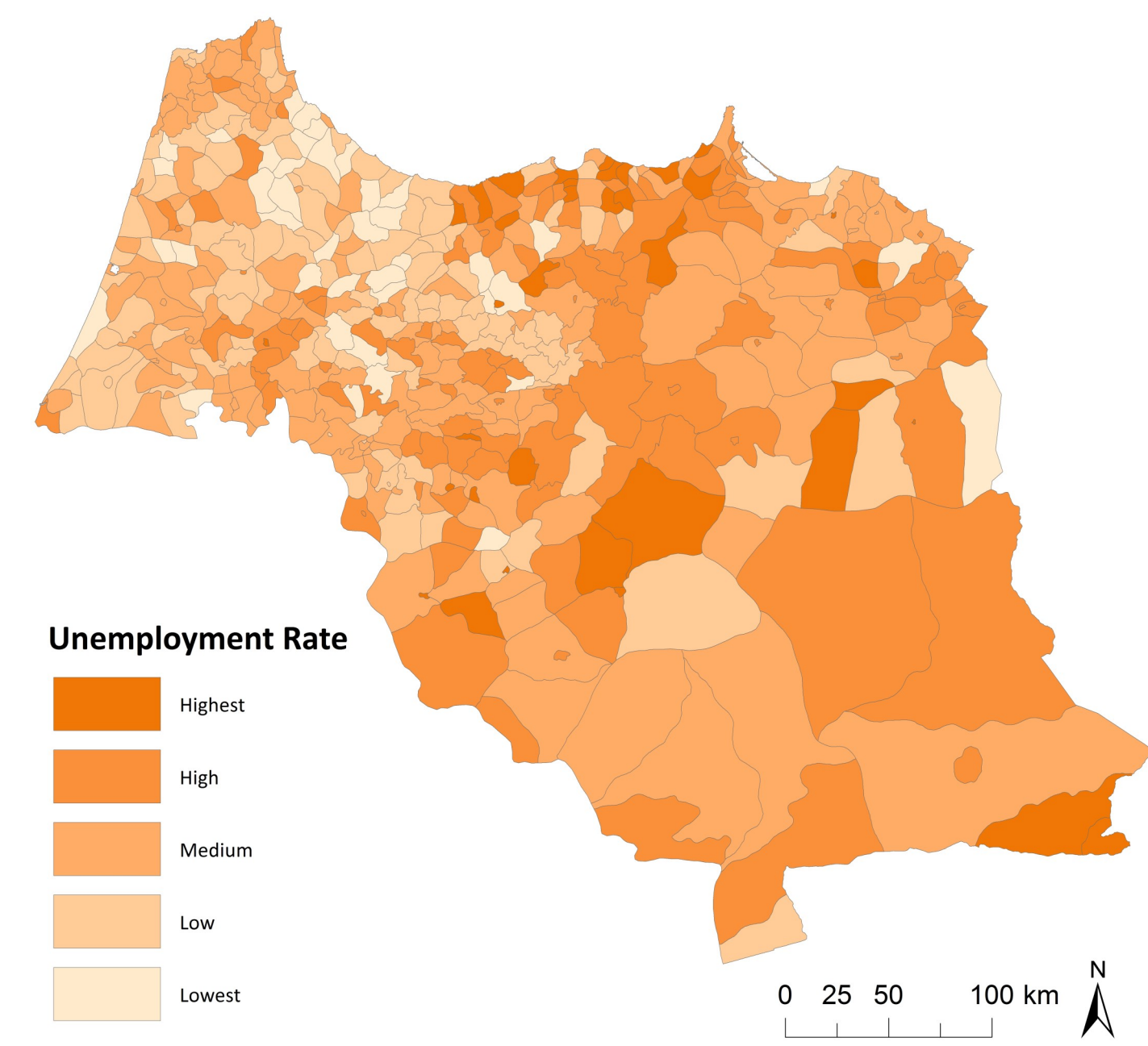
This project had several limitations, including lack of timely or complete census data. Many of the variables were normalized over a selection of the population (ex. individuals over 7 years old for employment data). Also, the roads and government services data was derived from crowdsourced, open-source data, which does not ensure that all locations were included in the data. Another challenge for this project was determining the variables, weighting, and breaks in the census and proximity data. This project used natural breaks, but a better set of demographic or proximity criteria informed by future radicalization studies would prove extremely useful.
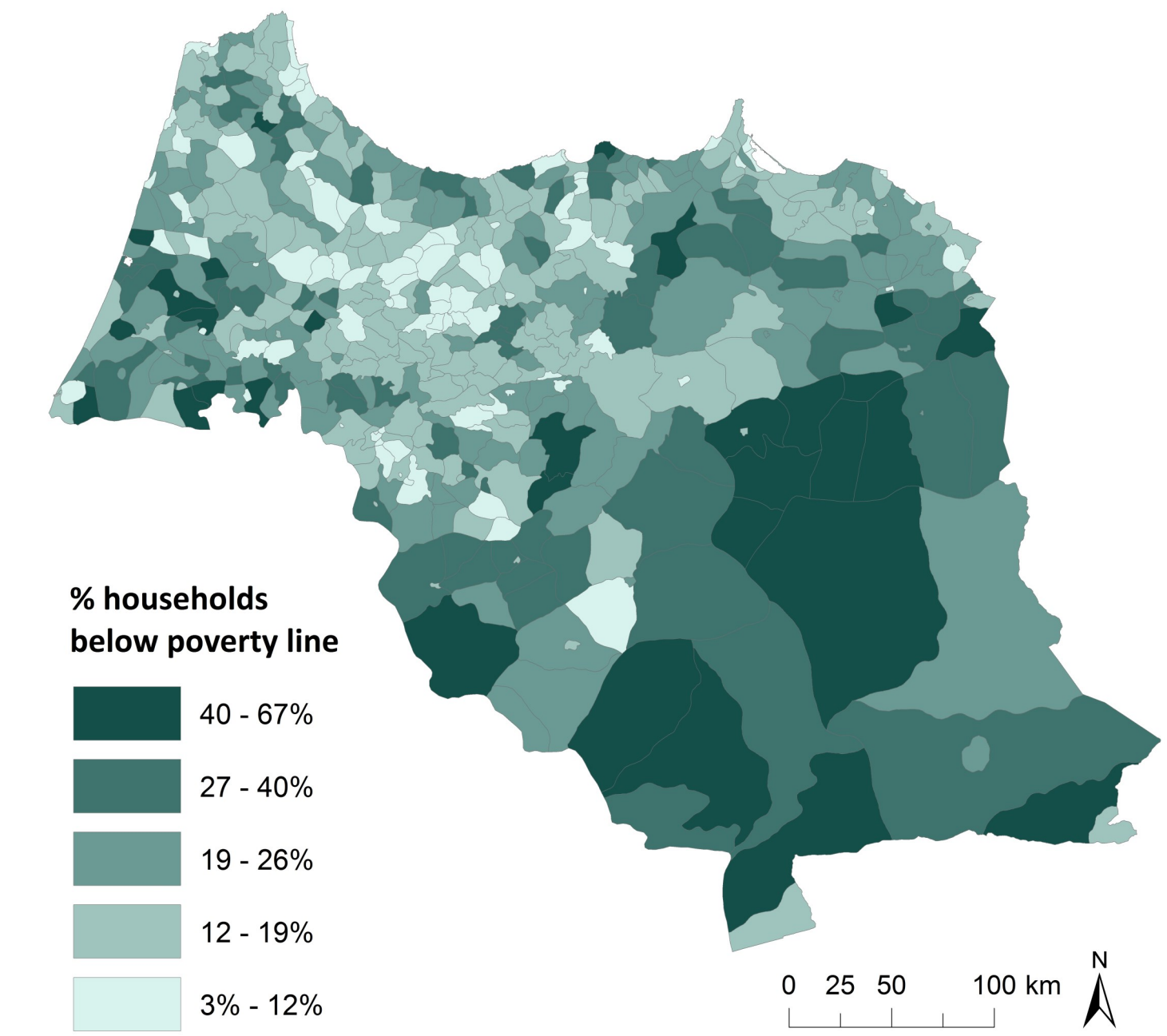
Major Cities
- ●

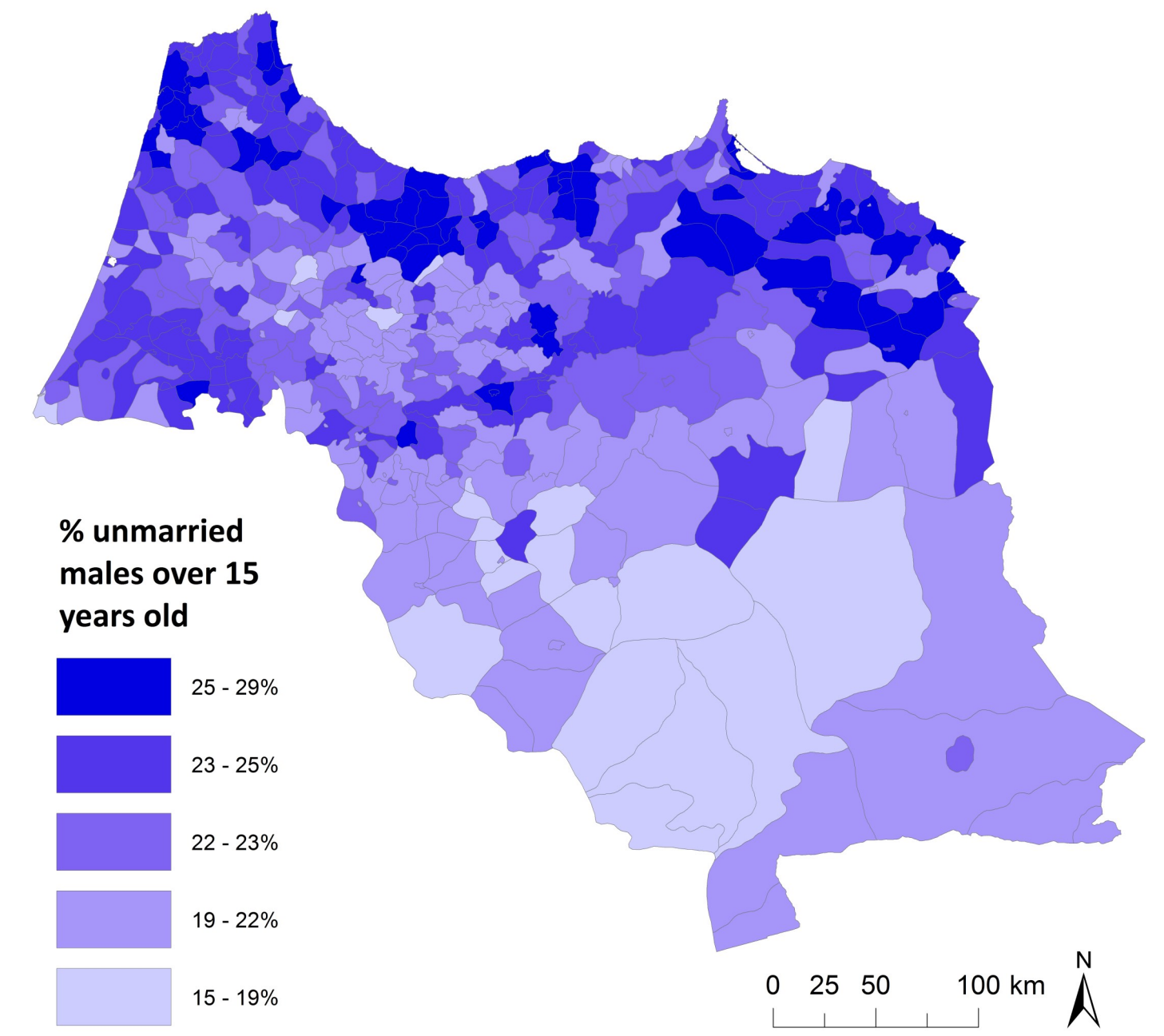### Risk of Radicalization
- Highest
- High
- Medium
- Low
- Lowest

0 25 50 100 km

N

Cartographer: Mike Airosus

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Data Sources: GADM Administrative Boundaries, Open Street Map Data via OSM X-tractor, ACLED Conflict Data, 2004 Morocco census data (Haut-Commissariat au Plan du Maroc), GfK, ESRI

DEMOGRAPHICS OF HIGHEST RISK COMMUNES

Commune: Azzinate, Jouamaa, Mestferki, Ksar Sghir, Lebkhata, Malloussa

Legend: Population under 20 years old, Households below poverty line, Unemployment, Illiteracy, Single males over 15 years old

UNEMPLOYMENT

Unemployment Rate
- Highest
- High
- Medium
- Low
- Lowest

0 25 50 100 km N

POVERTY

% households below poverty line
- 40 - 67%
- 27 - 40%
- 19 - 26%
- 12 - 19%
- 3% - 12%

0 25 50 100 km N

UNMARRIED MEN

% unmarried males over 15 years old
- 25 - 29%
- 23 - 25%
- 22 - 23%
- 19 - 22%
- 15 - 19%

0 25 50 100 km N

GOVERNMENT SERVICES

Proximity to government services
- Highest
- High
- Medium
- Low
- Lowest

0 25 50 100 km N

PAST CONFLICT

Conflict Density
- Highest
- High
- Medium
- Low
- Lowest

0 25 50 100 km N