



ADDRESSING FARMER-HERDER CONFLICT (FHC) IN KILOSA AND MVOMERO DISTRICTS, TANZANIA

Introduction

Farmer-herder conflicts in Kilosa and Mvomero Districts, Tanzania, pose significant challenges to sustainable development and community well-being. These conflicts stem from competing claims over land, resources, and livelihoods (Saruni et al., 2018), exacerbated by demographic pressures, land tenure insecurity (Benjaminsen et al., 2009). Falanta & Bengesi, 2018), and environmental factors (Mwamfupe, 2015). Understanding the spatial distribution of resources and population is crucial for developing effective policies to mitigate these conflicts.

Key Spatial Insights

1. Spatial Distribution of Livestock and Population

- **Kilosa District:** Figure 1 depicts the spatial distribution of cattle, highlighting areas with concentrated livestock populations.

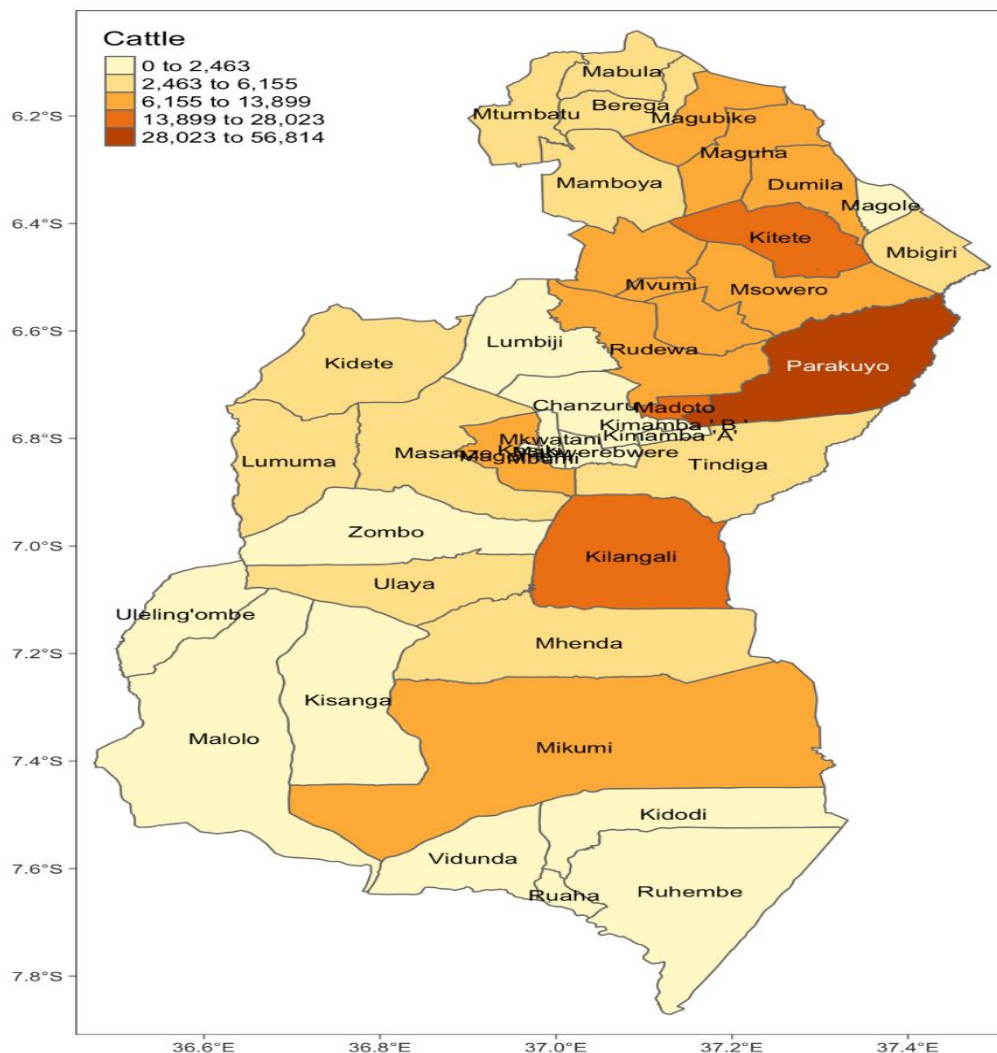


Figure 1: Spatial Distribution of Cattle in Kilosa District

Figure 2 shows the distribution of the human population, illustrating areas of high population density that coincide with high conflict incidence.

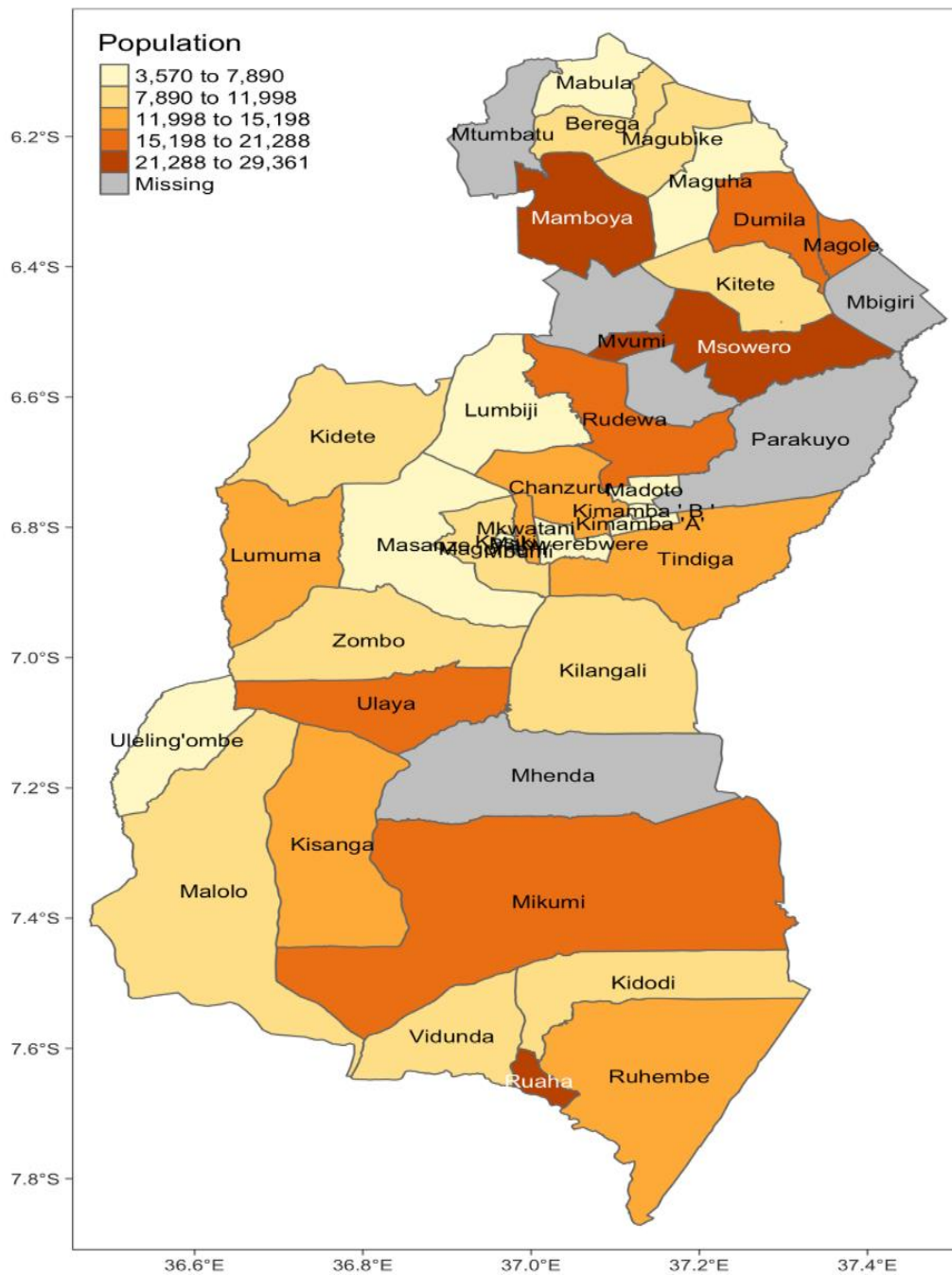


Figure 2: Spatial Distribution of Human Population in Kilosa District

- **Mvomero District:** Similar spatial patterns are observed in Mvomero district, with Figure 3 illustrating cattle distribution and Figure 4 portraying human population densities. These spatial distributions influence resource competition and conflict dynamics.

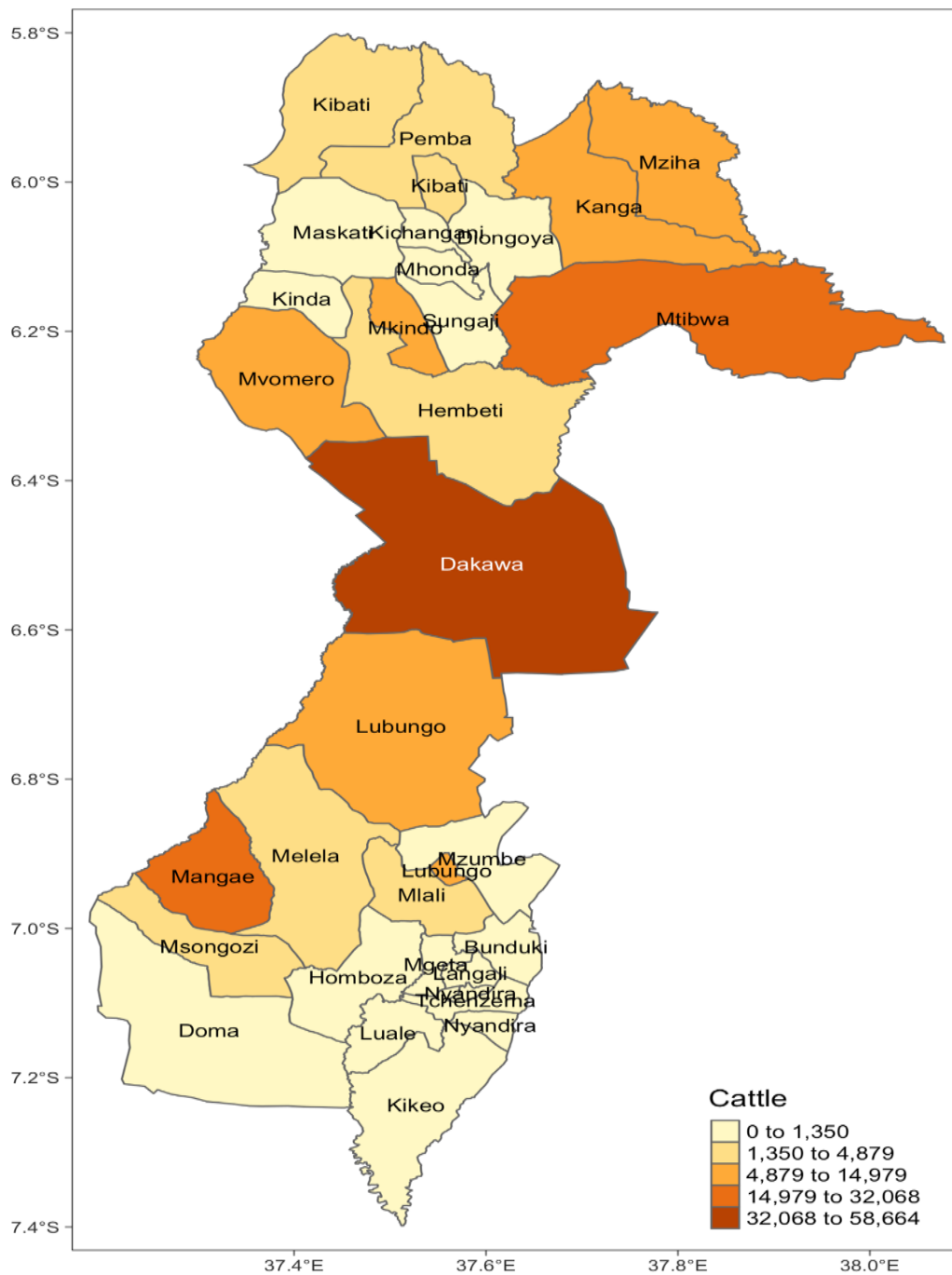


Figure 3: Spatial Distribution of Cattle in Mvomero District

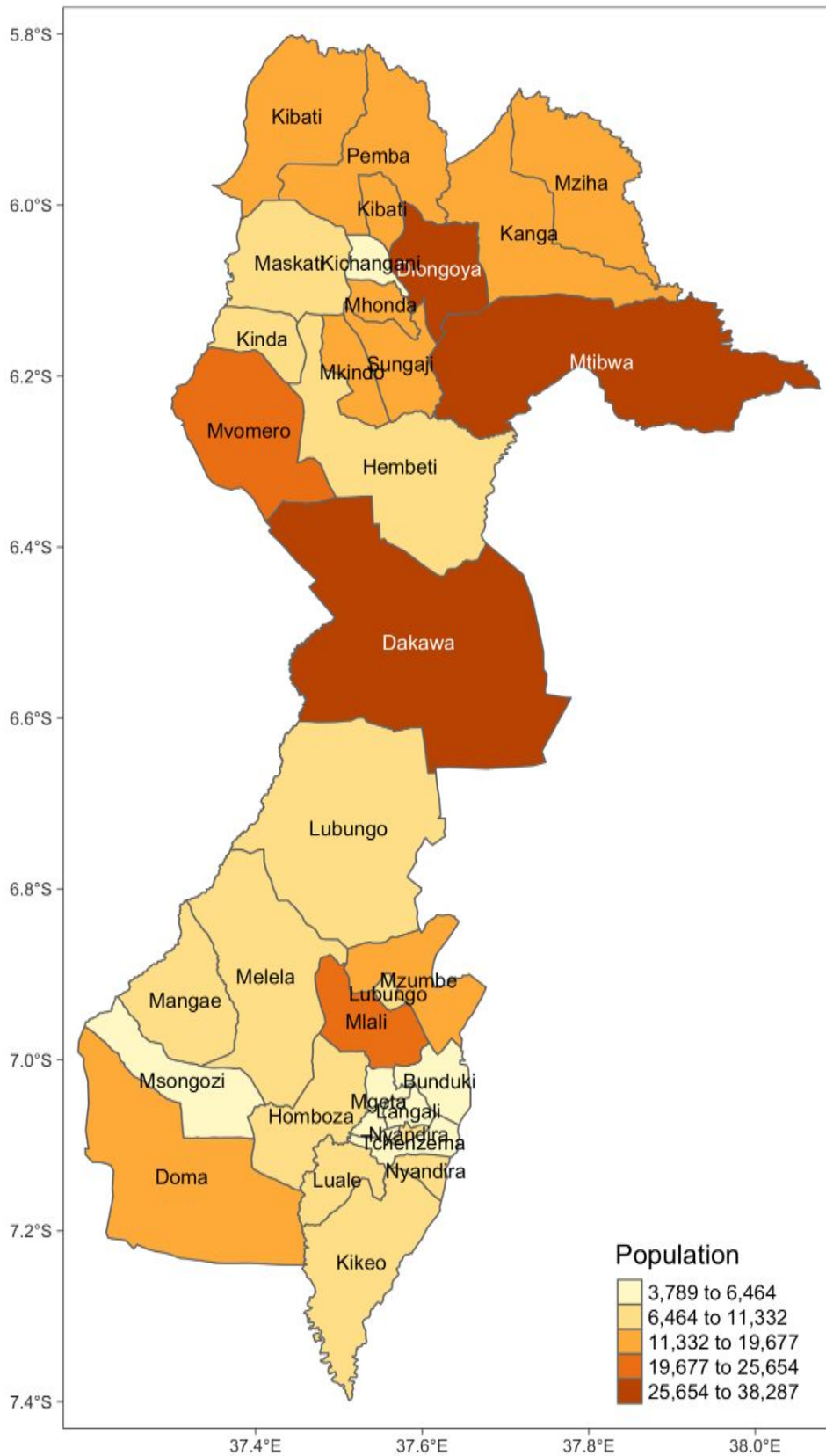


Figure 4: Spatial Distribution of Human Population in Mvomero District

2. Ward Area Sizes and Elevation Variability

- In Kilosa district (Figure 5), variations in ward sizes impact land use patterns and agricultural productivity.

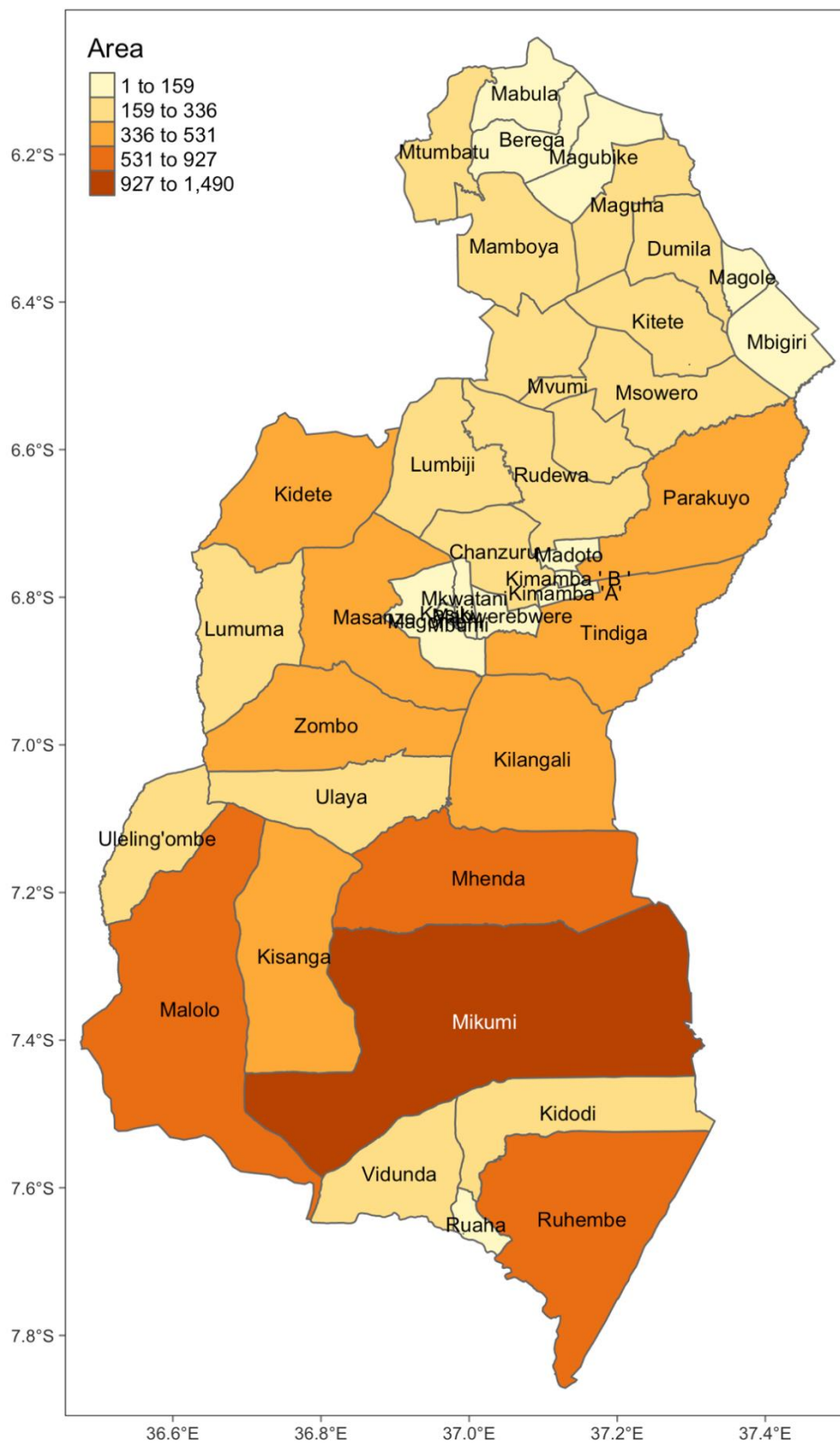


Figure 5: Spatial Distribution of Area size (km²) of Wards in Kilosa District

Figure 6 highlights elevation differences, influencing the suitability of land for grazing and agricultural activities.

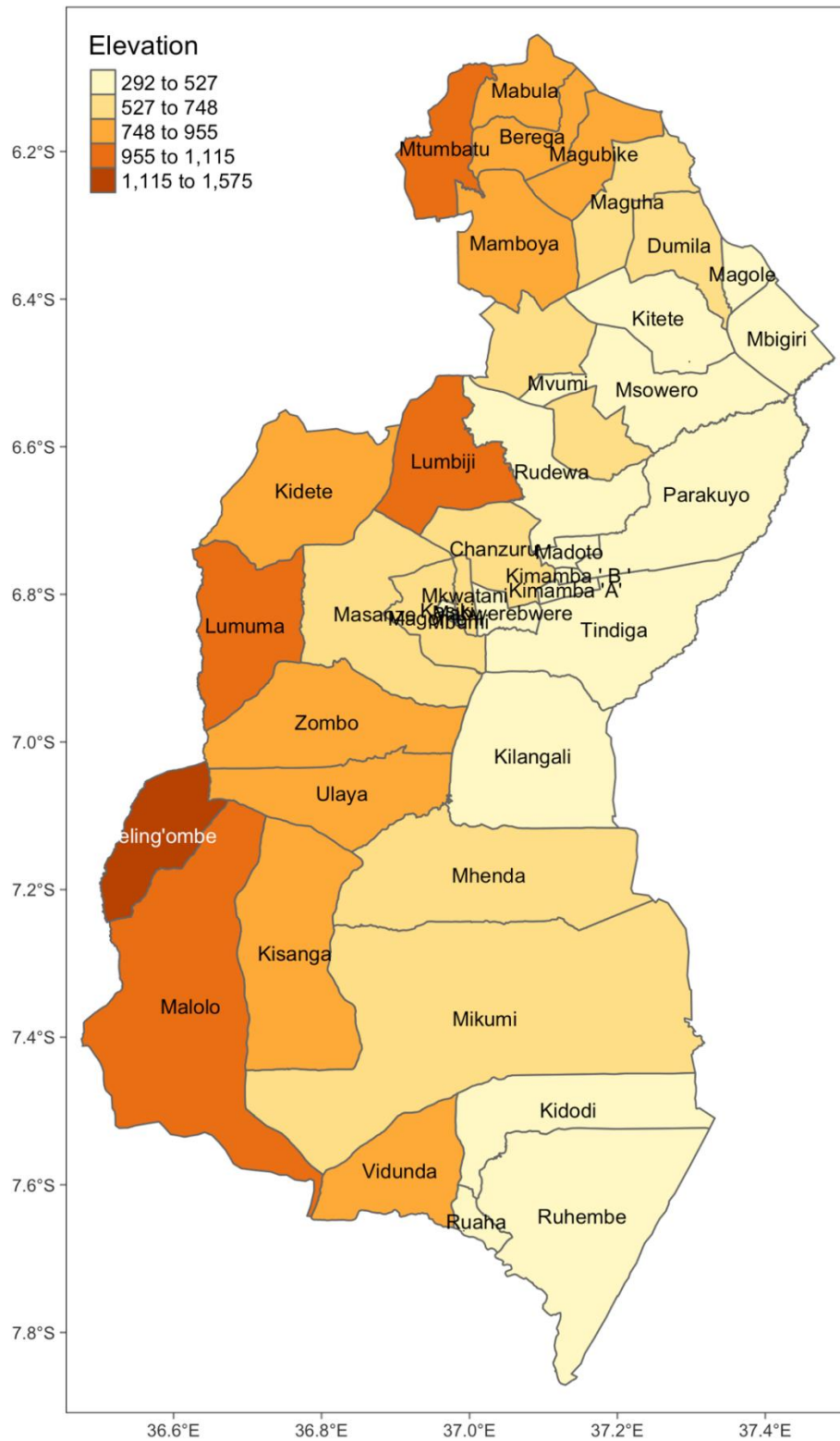


Figure 6: Spatial Distribution of Elevation(m) in Kilosa District

- Mvomero district exhibits comparable spatial variations in ward sizes (Figure 7) and elevation (Figure 8), which affect resource availability and livelihood strategies, contributing to conflict dynamics.

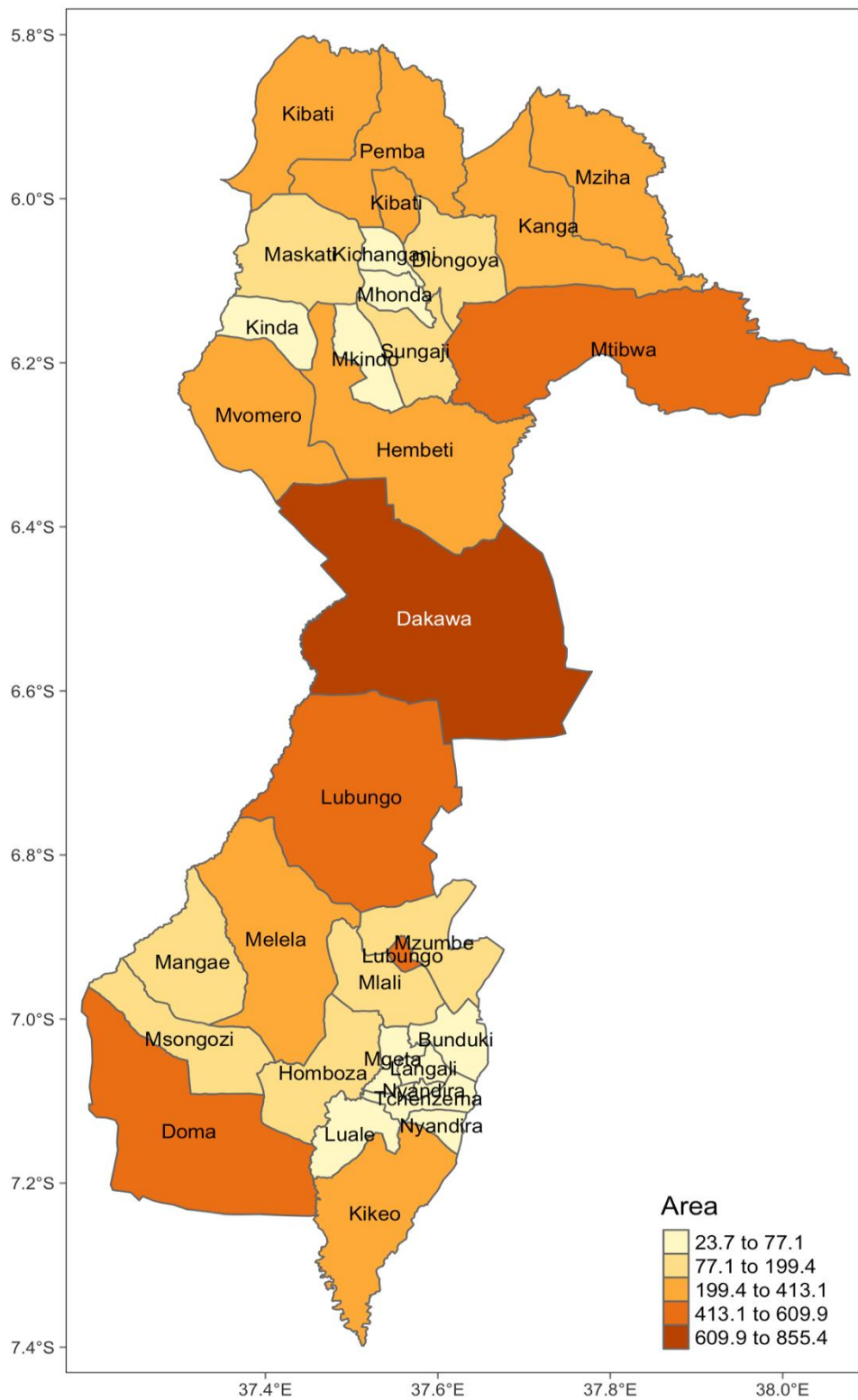


Figure 7: Spatial Distribution of Area size (km²) of Wards in Mvomero District

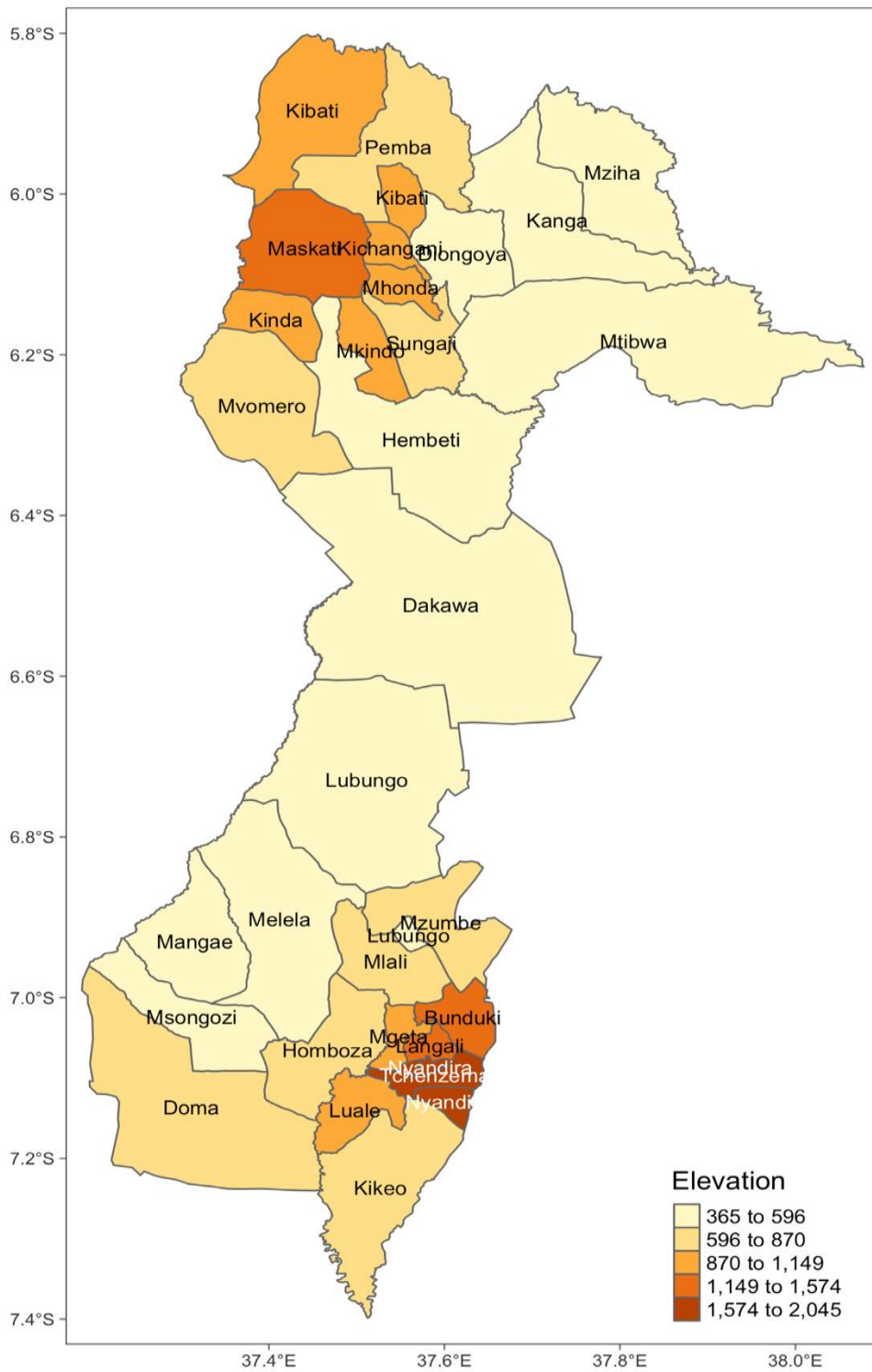


Figure 8: Spatial Distribution of Elevation (m) in Mvomero District

Figure 9 illustrates the spatial distribution of farmer-herder conflicts (FHC) in Kilosa District. The map shows that conflicts are concentrated in certain wards, particularly those with high livestock densities and lower elevation areas. These conflict hotspots are often located near the boundaries between different land uses, such as agricultural zones and grazing areas.

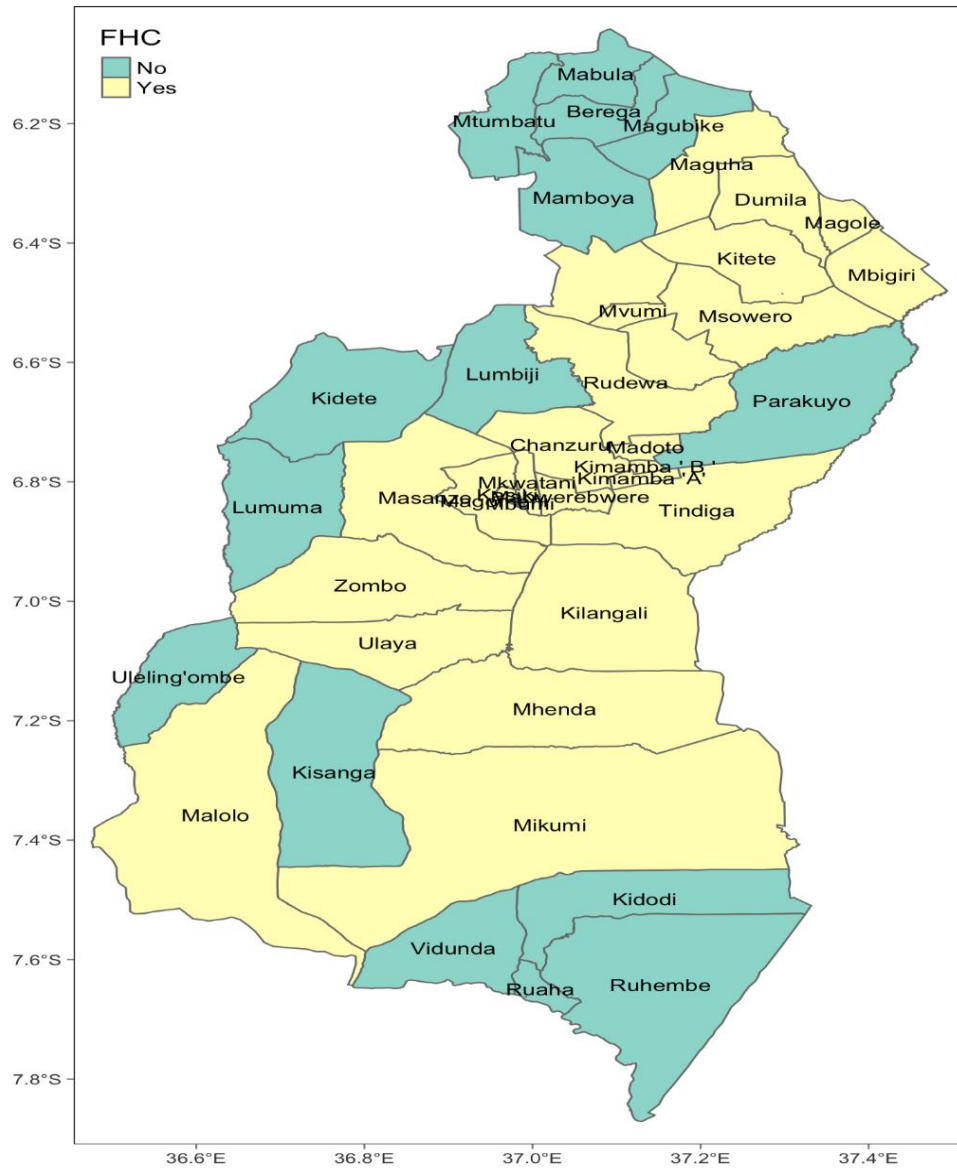


Figure 9: The spatial distribution of FHC across Kilosa District

Figure 10 depicts the spatial distribution of farmer-herder conflicts (FHC) in Mvomero District. The map reveals that conflicts are spread across different wards, with some areas experiencing higher frequencies of disputes. The distribution of FHC in Mvomero is more dispersed compared to Kilosa, reflecting a different pattern of land use and resource competition.

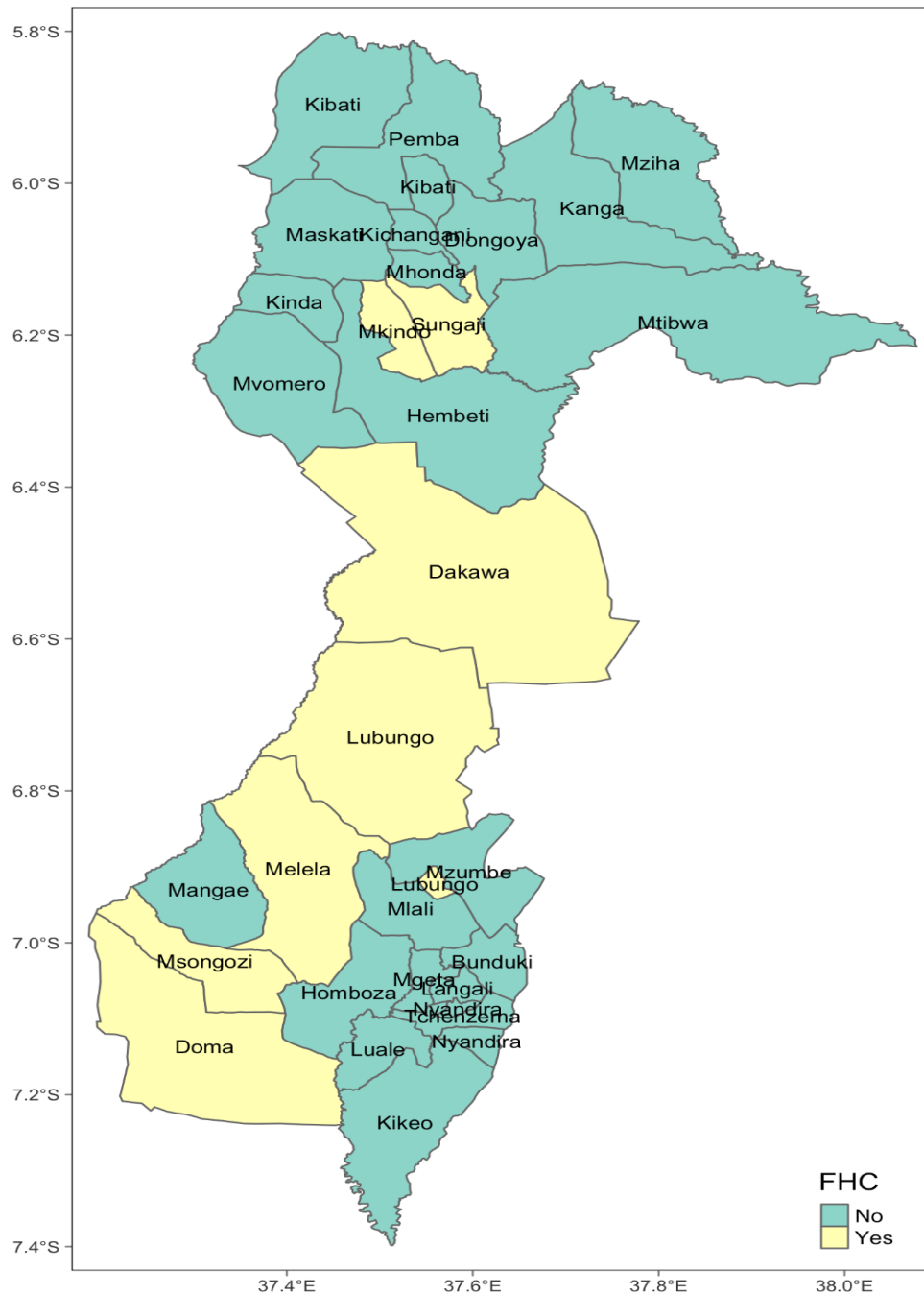


Figure 10: The spatial distribution of FHC across Mvomero District

Policy Recommendations

1. Localized Conflict Resolution Strategies

- Develop and implement localized conflict resolution strategies that address specific spatial dynamics and community grievances related to land use, livestock management, and resource access.

2. Enhanced Governance and Institutional Capacities

- Strengthen local governance structures and institutional capacities to manage conflicts effectively. This includes improving transparency in resource management, enhancing land tenure security, and promoting community-driven conflict resolution mechanisms.

3. Integrated Spatial Planning and Development

- Integrate spatial data and analyses into development planning processes to guide equitable resource allocation, infrastructure development, and land use policies. This approach supports sustainable development while mitigating conflicts over natural resources.

Conclusion

Addressing farmer-herder conflicts in Kilosa and Mvomero districts requires a nuanced understanding of spatial dynamics and localized interventions tailored to community needs. Therefore, by leveraging spatial insights and implementing targeted policy measures, Tanzania can foster peaceful coexistence, protect livelihoods, and promote sustainable development.

Plate 1: Cornfield before damaged.



Plate 2: Cornfield after being damaged by cattle.





Plate 3: Prof. Raphael Chibunda, Vice Chancellor of Sokoine University of Agriculture (SUA), receives information during the 2024 Nane Nane Exhibition. The exhibition showcased the Land Resources and Conflict Geodatabase (LaReCo), an interactive web-based application developed on an open-source platform. LaReCo enables users to visualize the spatial distribution of farmer-herder conflict magnitude, along with environmental and socio-economic data in Kilosa and Mvomero Districts, provided at the ward level. LaReCo is the result of a research project funded by SUA through the SUARIS fund scheme.



Plate 4: Dr. Edwin Ngowi engages with pupils during the 2024 Nane Nane Exhibition, providing insights about the learning opportunities available at the College of Social Sciences and Humanities (CSSH). He elaborates on the diverse programs offered by the college, highlighting the unique educational experiences and skills that students can gain. Dr. Ngowi emphasizes the importance of these programs in fostering critical thinking and social awareness among students, thereby preparing them for future challenges in various fields. His interactive presentation aims to inspire the next generation of learners to consider pursuing their studies at CSSH..

References

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