KATHMANDU UNIVERSITY

SCHOOL OF ENGINEERING

DEPARTMENT OF GEOMATICS ENGINEERING

A MINI PROJECT REPORT ON DIFFERENT TYPES OF THEMATIC MAPS BASED ON ANY THEME.

GEOM 313: MODERN CARTOGRAPHY

Submitted By

Arbin Chaudhary

Roll no. 07

Group: GE

Level: UNG/3rd year/2nd semester

Submitted To

Er. Sujan Subedi

Department of Geomatics

Engineering, Kathmandu

University

Mini Project:

Question

Create four different types of thematic maps of any region within Nepal focusing on any theme of your choice. Include a brief report explaining the rationale behind your chosen theme.

Ans.: The four different types of thematic maps of any region within Nepal focusing on the selected theme are:

1. Dot Density Map:

Theme: Number of households and population of dang district

Rationale:

1. **Socio-Economic Development**
   - Provides insights into living conditions and economic activities.
   - Identifies needs for housing, education, and employment opportunities.
   - Highlights distinct household characteristics among different ethnic groups.

2. **Resource Allocation**
   - Essential for effective allocation of local government resources.
   - Informs decisions on infrastructure development, healthcare, and education.
   - Helps predict demands for services based on population density and household ownership patterns.

3. **Public Health Planning**
   - Vital for identifying vulnerable groups needing targeted health interventions.
   - Aids in planning for reproductive health services based on family planning needs.
   - Supports predictions of healthcare demands through understanding household sizes.

4. **Migration Trends**
   - Sheds light on rural-to-urban migration patterns.
   - Assists local authorities in managing urbanization pressures and future growth.

5. **Cultural Insights**
   - Offers understanding of cultural practices and social structures.
   - Highlights variations in household arrangements and gender roles among ethnic groups.

This rationale approach emphasizes the importance of analyzing households and population data in Dang District for comprehensive planning and development.
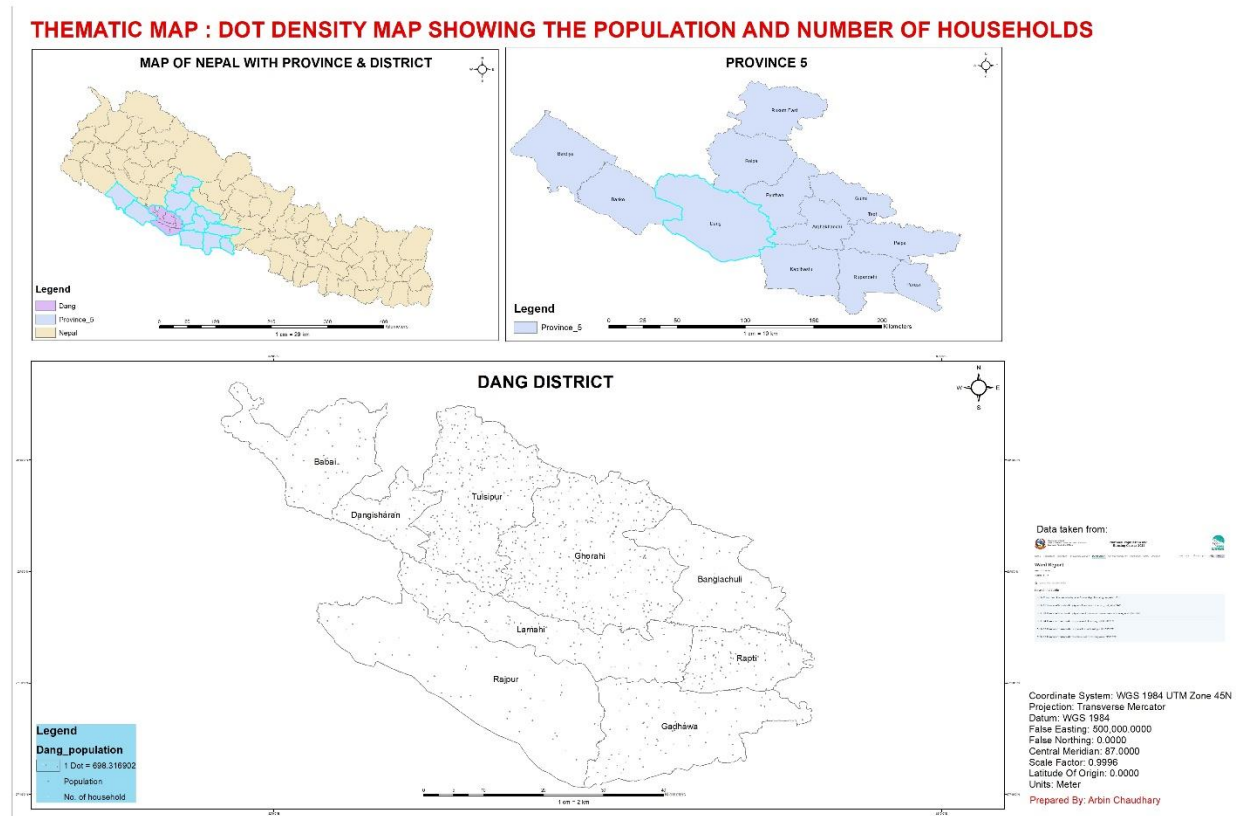
Prepared Map:

Figure 1 : Dot Density Map showing the no. of household and population

2. Graduated Symbol Map

Theme: Number of landless Dalits
Rationale:

1. **Economic Vulnerability**
   - Landless Dalits face significant economic challenges, often relying on low-paying, unstable labor.
   - Their lack of land exacerbates poverty and limits access to education and healthcare.

2. **Impact of Natural Disasters**
   - They are disproportionately affected by natural disasters, receiving less aid and support.
   - Understanding their situation is vital for developing effective disaster recovery programs.

3. **Social Exclusion**
   - Systemic discrimination leads to social exclusion, limiting participation in economic and political life.
   - Analyzing landlessness highlights ongoing caste-based inequalities.

4. **Migration Trends**
   - Many landless Dalits migrate for work due to local economic constraints.
   - Studying this trend can inform policies to improve livelihoods and reduce migration dependency.
5. **Policy Development**
   - Understanding the demographics and challenges faced by landless Dalits is crucial for targeted policy interventions.
   - Promotes social justice and enhances the socio-economic status of this marginalized community.

This rationale approach underscores the importance of analyzing landlessness among Dalits to inform equitable policies and improve their living conditions.
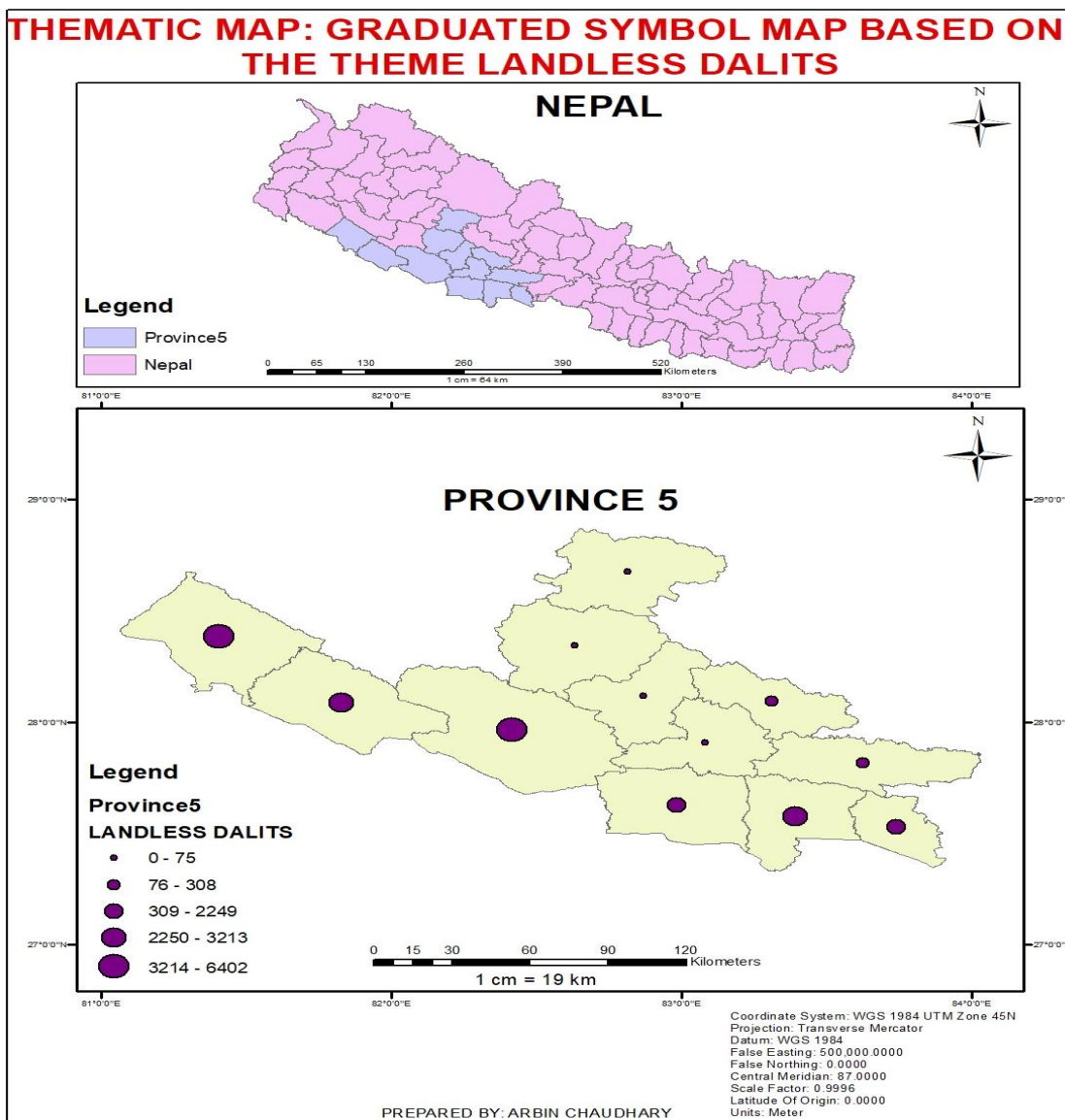
Prepared Map:

Figure 2: Graduated symbol map showing number of landless dalits

3. Choropleth Map

Theme: Literacy Status of the people with disability, NPHC 2021

Rationale:

1. **Educational Disparities**

   - Individuals with disabilities often face barriers to education, resulting in lower literacy rates. Understanding these gaps is crucial for targeted interventions.

2. **Economic Opportunities**

   - Literacy is essential for employment and economic independence. Analyzing literacy levels can inform programs that enhance employability.

3. **Social Inclusion**

   - Literacy empowers participation in civic and community life. Examining literacy status helps identify barriers to social inclusion.

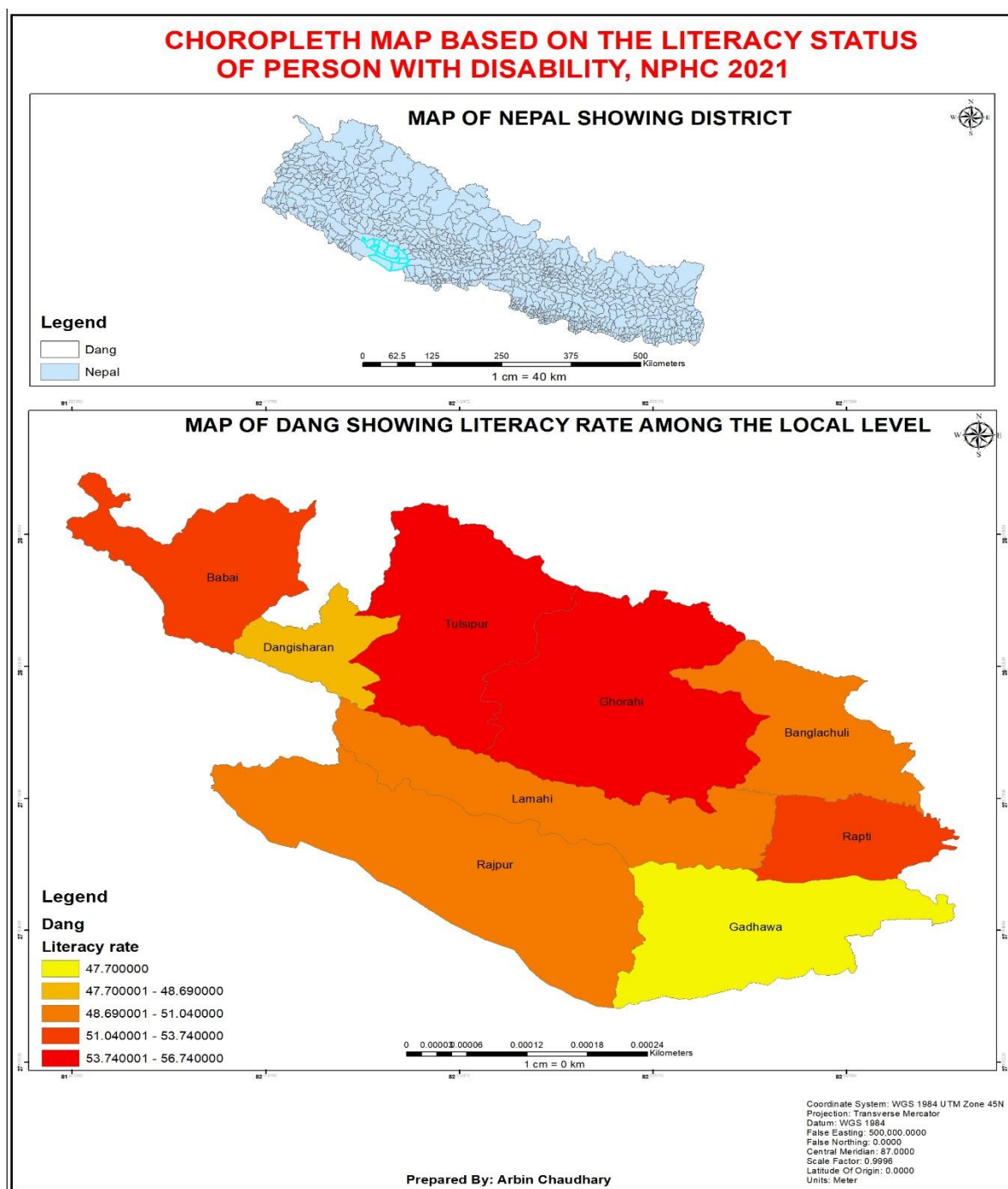4. **Impact of Disability Type**

   - Different disabilities affect literacy acquisition differently. Analyzing this can guide tailored instructional strategies and support.

5. **Policy Development**

   - Data on literacy among people with disabilities is vital for informed policymaking and resource allocation to improve educational access.

This rationale highlights the importance of analyzing literacy status to promote inclusivity and enhance the quality of life for people with disabilities.

Prepared Map:

Figure 3:Literacy status of people with disabilities in Dang District

4. Chorochromatic Map:

Theme: Land Use and Land Cover in Dang District

Rationale:

1. **Environmental Management**
   - Identifies ecosystem changes and the impact of human activities, aiding resource management.

2. **Impact of Urbanization**
   - Informs sustainable urban planning in response to rapid urban growth and infrastructure demands.

3. **Agricultural Practices**
   - Optimizes land use for agriculture, improving soil management and food security.

4. **Biodiversity Conservation**
   - Monitors habitat changes to protect local biodiversity and endangered species.

5. **Climate Change Adaptation**
   - Guides policies on carbon storage and water resources to enhance climate resilience.

This rationale highlights the significance of analyzing land use and land cover for effective environmental management and sustainable development in Dang District.
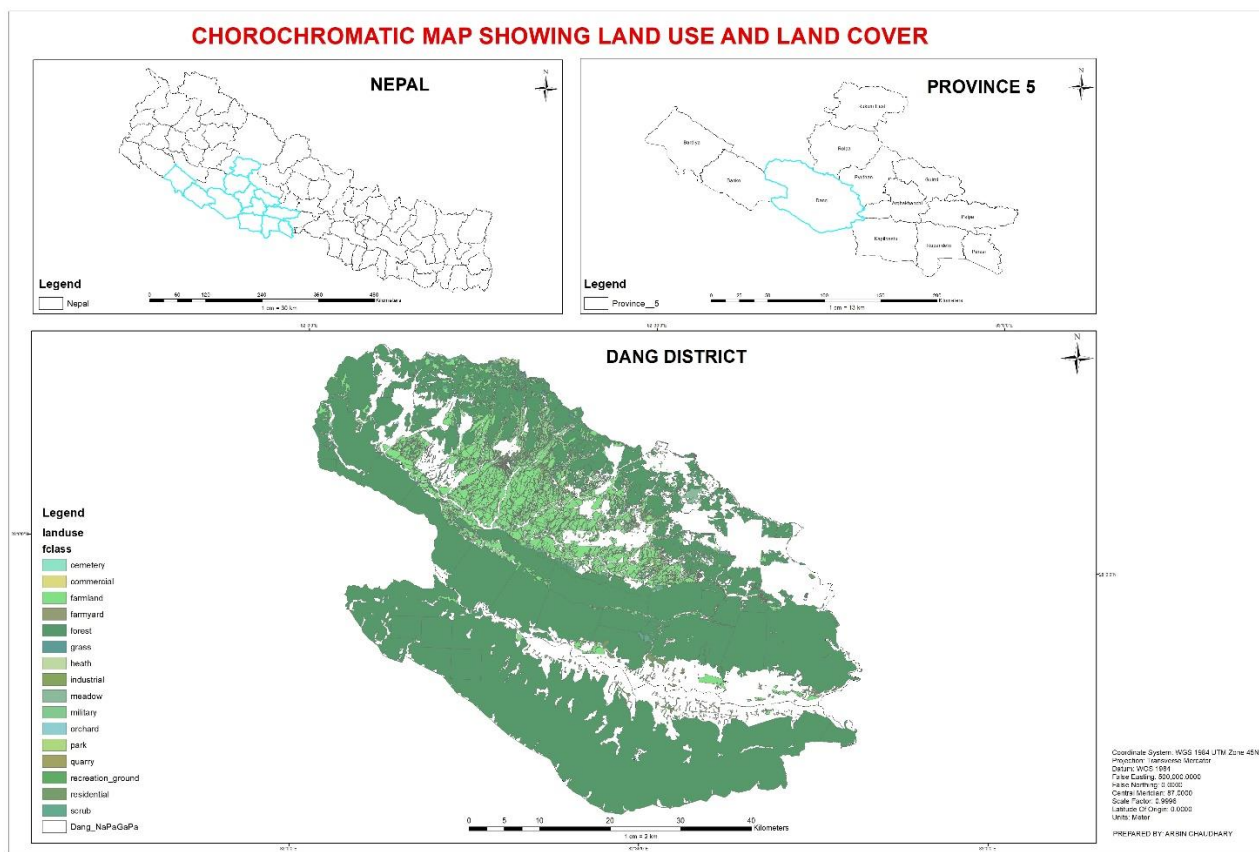
Prepared Map:

Figure 4: Chorochromatic Map showing land use and land cover