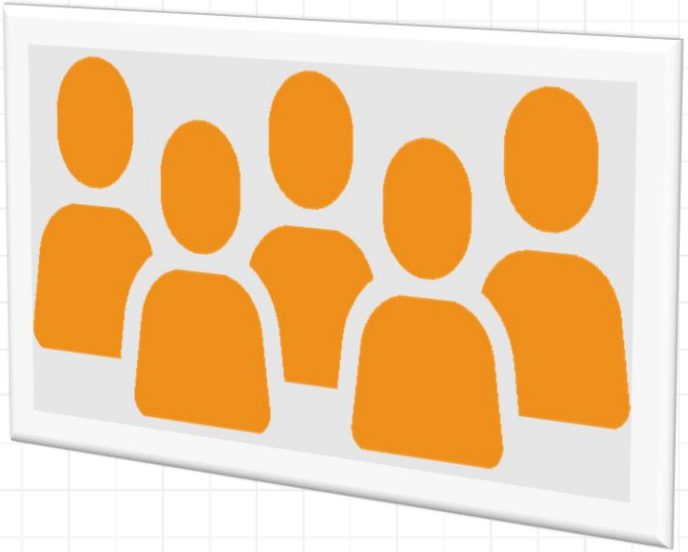
South Sudan Population Estimation Survey

Background

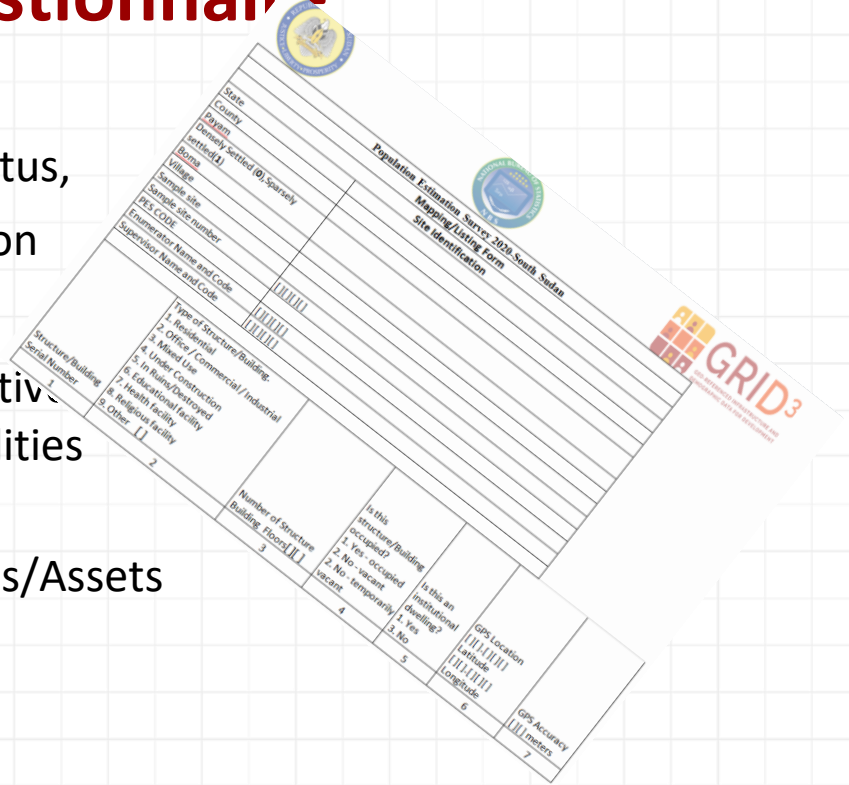
- Population numbers fundamental data for decision making
- No recent population data for South Sudan
- 2008 Sudan Population and Housing Census, showed:
  - South Sudan population at 8.26 million
    - ✓ 4.29 million male
    - ✓ 3.97 million females
- Reliance on population projections (overtaken by events, time)
- ***The Population Estimation Survey is not a replacement of the Population and Housing Census***



The focus of the survey: Questionnaire

Major variables in the questionnaire:

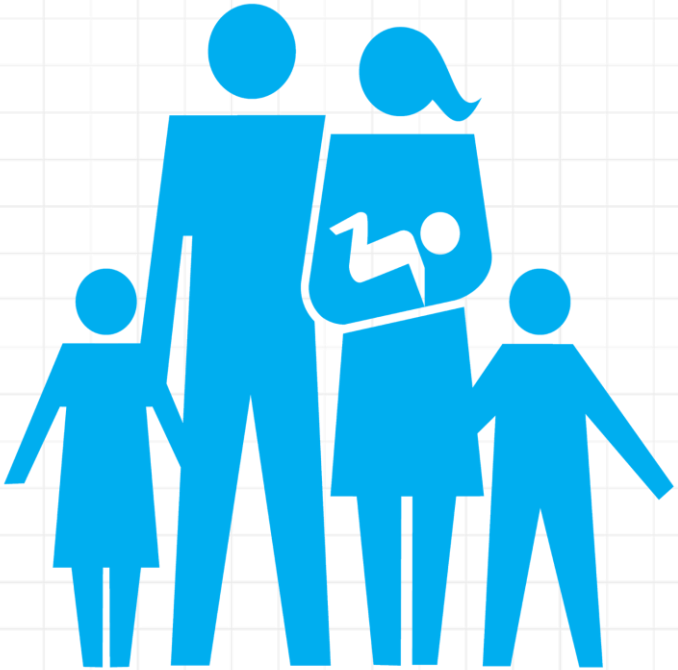
- Household Demography: Age, Sex, Marital status,
- Migration: Person, place and Time of Migration
- Education: Schooling patterns for >= 6 years
- Disability: the types (Hearing ,Learning/Cognitive Motor Disabilities, Physiological, Visual Disabilities
- Economic Characteristics: Source of income
- Household characteristics: Economic resources/Assets and possessions, ICT



Methodology

Technical description of methods and statistical approaches

- **Target population:** all households, household members and residents within the bounds of the sites
- **Eligible Population:** all households and individuals present or who stayed at the household on the reference night.
- The modelled population will be based on
  - Sampling in all the 10 states
  - Two stage sampling in that :
    - A sample of densely and Sparsely settled areas from each state
    - Sampled densely and Sparsely settled payams obtained
    - In each sampled payam, survey sites will be sampled
- All households in the sampled survey sites will be enumerated



Concept in Population Estimation

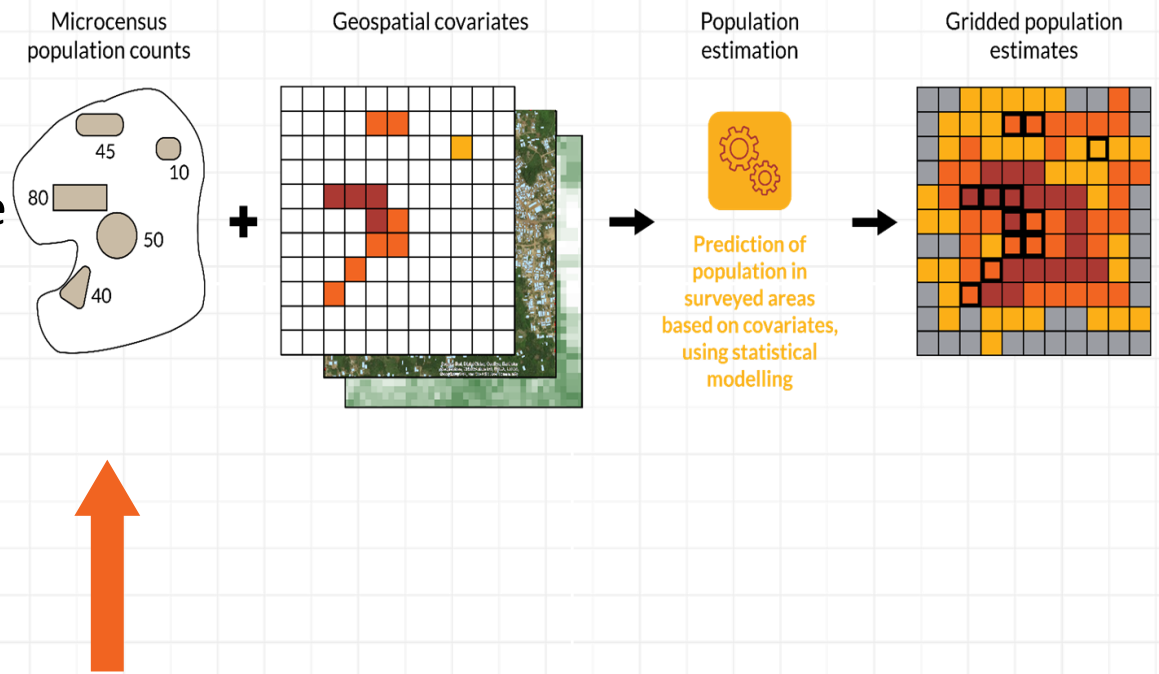
Model-based population estimation and mapping

An approach to predict population in an area based on statistical relationships with observable factors. Alternative to projection techniques.

- “Top-down” and “Bottom-up” methods
- Estimate local population distribution
- Typically using gridded output formats

Bottom-up Model

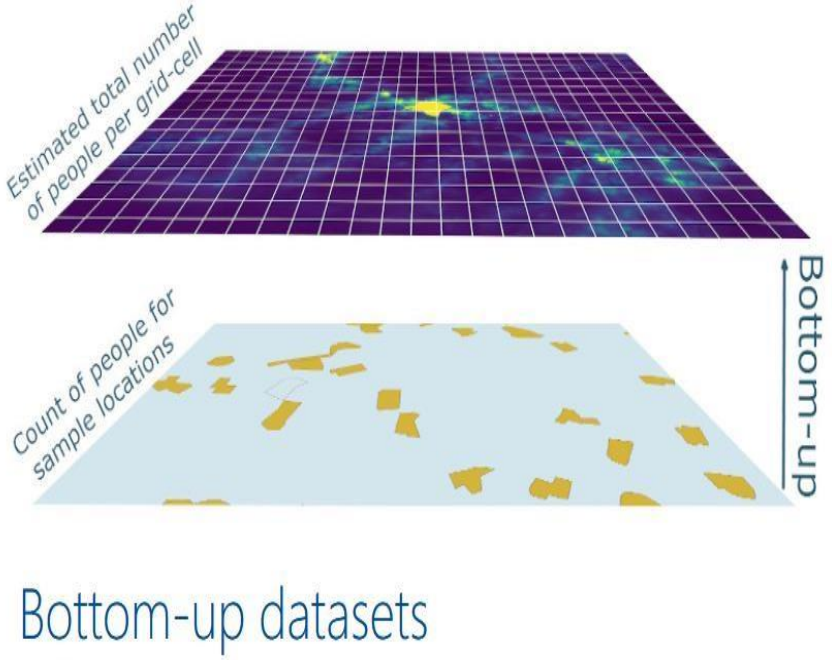
- Using a sample of population information
- The observed population density is related to observable features in the landscape
- A statistical relationship is used to predict the population in unsampled areas



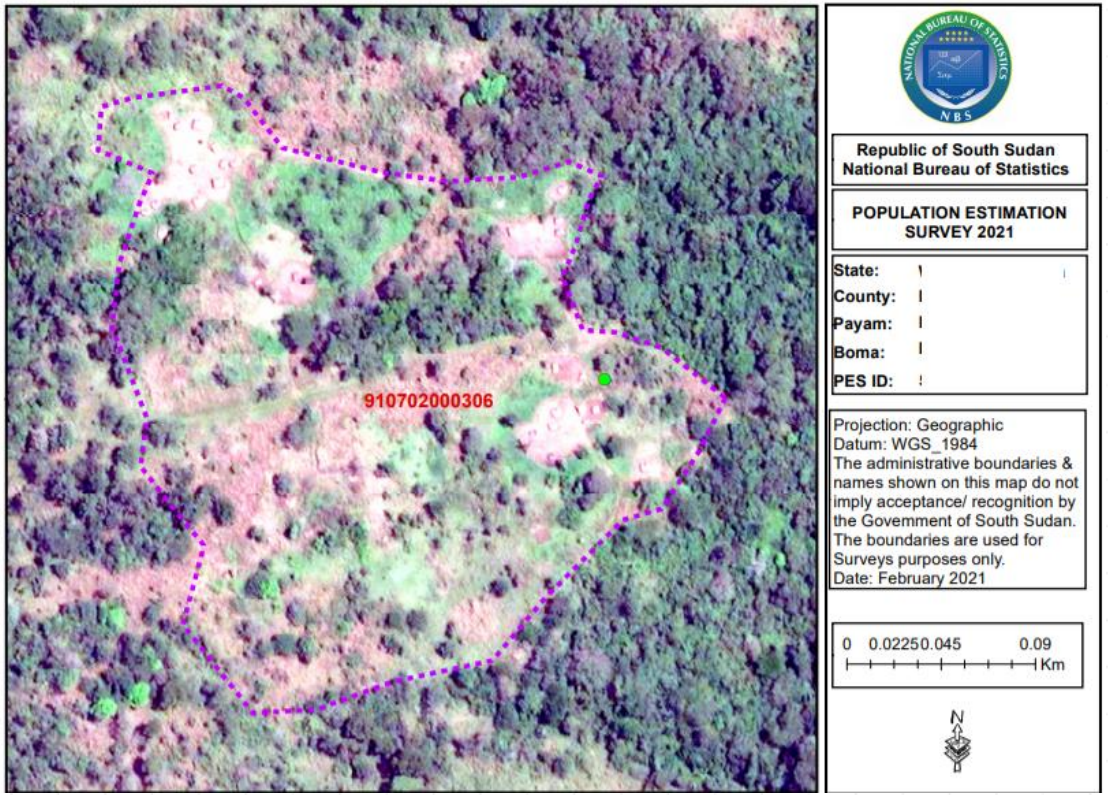
Institutional framework

Bottom-up approach

- Using a sample of population information
- The observed population density is related to observable features in the landscape
- A statistical relationship is used to predict the population in unsampled areas

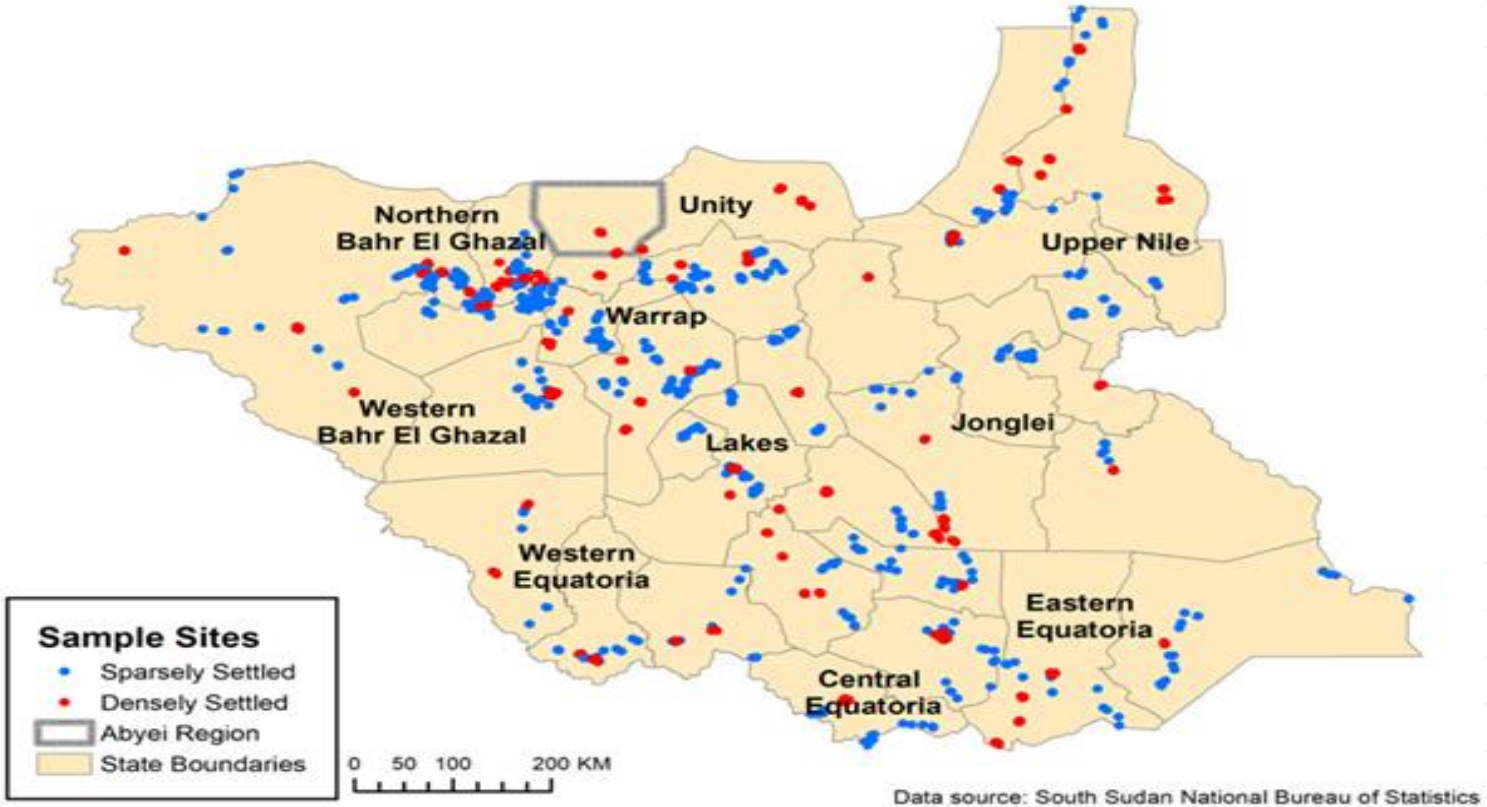


Map Delineation Using Satellite Imagery



	The green boundary is an acceptable site. It encloses the correct number of structures and it contains the sample location (yellow triangle). The boundary also follows clear roads and does not intersect any buildings.
	This red boundary is **not** acceptable. The bottom border cuts through the structures and does not follow the roads.

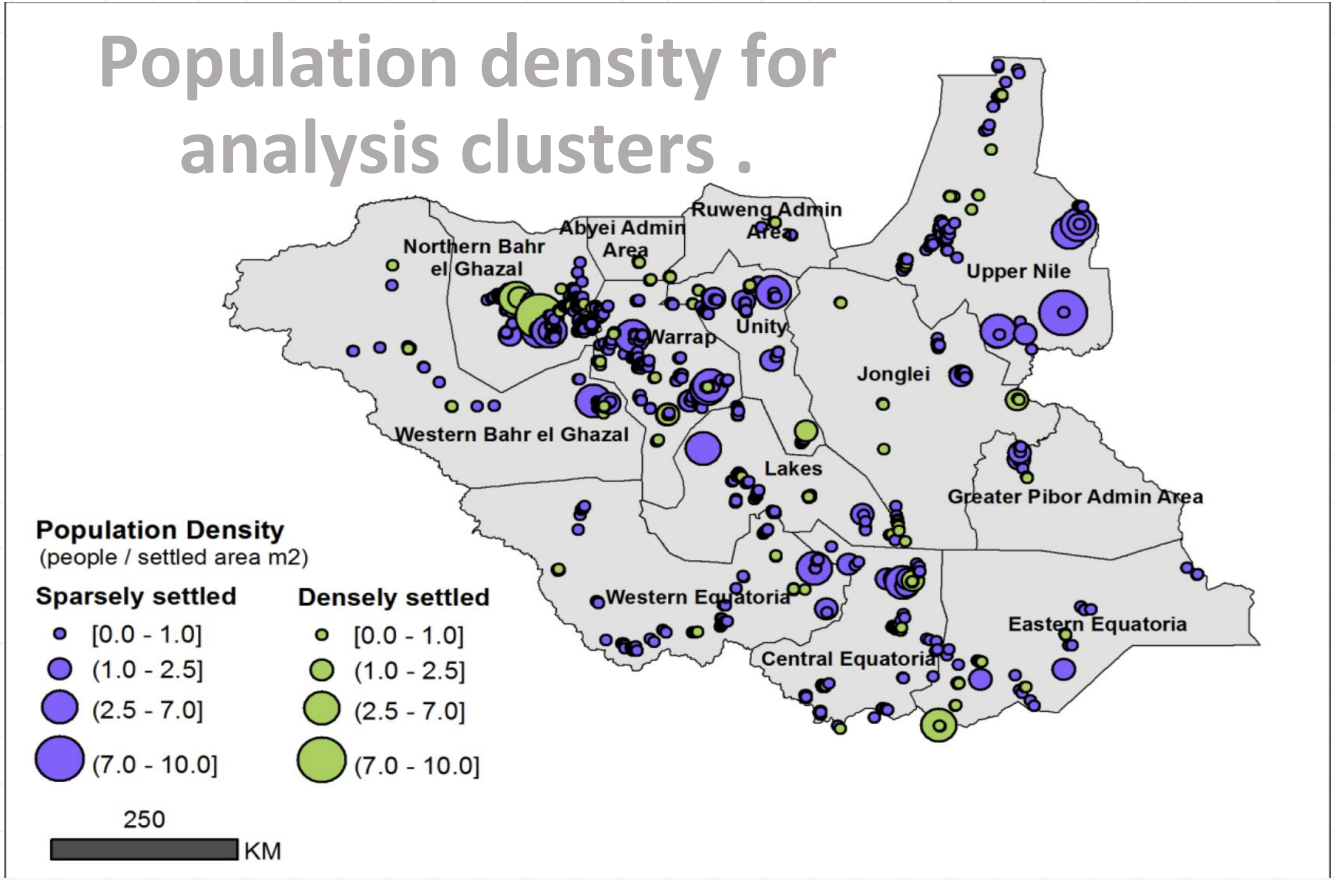
Location of sample sites within the country



Enumeration

- PES was conducted from 28 May to 15 June 2021 with 130 supervisors, and 533 enumerators. The Survey reference night was midnight of 27/05/2021.
- Covered the 10 States and 3 Administrative areas .
- Visited 1450 out of 1536 sample sites, 69,527 Households and 314,868 House Hold members.

Population density for analysis clusters .



Each point location represents the location of an analysis clusters of PES households (n = 1248) .

Samples were collected in dense and sparse settlement strata defined by the density of buildings detected in high-resolution satellite imagery. The population density represent the population per the settlement area in the clusters.

Boundary source: South Sudan National Bureau of Statistics

South Sudan Population Pyramid 2021