

The Geospatial Census: plans and progress for the 2010 round of population censuses

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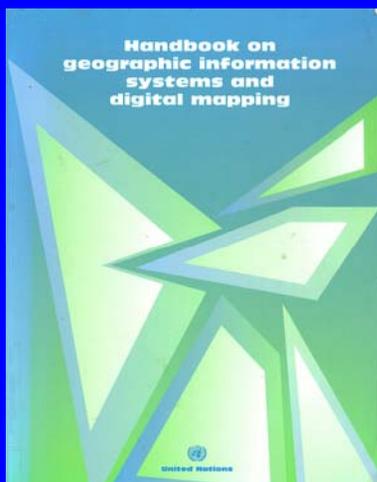
- **The Geospatial Census** - quick outline:
 - disclaimer
 - 2010 process w/respect to geospatial tech
 - old and new contexts for tech adoption
 - UN Handbook, 2000 and 2008 eds
 - the digitization bottleneck
 - some “good ideas” for 2010: management issues, addressing HR gaps & retaining staff
 - role of outside organizations

- 2010 process w/respect to geospatial tech
 - UNSD is promoting use of geospatial technologies by NSOs for census work
 - Regional workshops last fall (Lusaka Oct 8-12, Bangkok Oct 15-19, Trinidad Oct 22-26, Rabat Nov 12-16) on census cartography & mgmt
 - Expert Group meeting in NY April 7-10
 - Revised UN Handbook due out later this year

- old and new contexts for tech adoption
 - OLD – “traditional census approach” → total #s, census boom-bust cycle; challenge of disaggregated data exposing errors
 - NEW – “geospatial census” → IT database core (incl GIS & cartography) is centrally located within the NSO; upper management is empowered to produce better and more granular data for a variety of clients

– UN Handbook, 2000 and 2008 eds

- 2000 edition



- Provided a “sliding scale” and cost-benefit analysis for tech adoption,
- Structured around traditional census cycle (pre-enumeration, enumeration, post-enumeration)
- 2000 was pre-1 meter imagery, pre-Windows xp, pre-ArcGIS, pre-Google Earth
- Audience for handbook was both management and technical people

– UN Handbook, 2000 and 2008 eds

• 2008 edition:

- Current status: awaiting reviews from Expert Group
- Centers around creation of EA-level census geodatabases and permanent updating operation
- New sections on GPS use (incl DGPS, WAAS, and GPS training), R/S, heads-up digitizing, COTS software, free & open source software, spatial analysis
- The pitch: more accurate and georeferenced demographic data will gain NSOs more customers



Chapters in the 2008 edition:

1. Executive summary
2. Constructing an enumeration area (EA) level database for the census
3. Integrating fieldwork using GPS and remotely sensed data
4. Geographic databases for enumeration
5. Geographic databases for postcensal dissemination of results and analysis

Persistent problems:

1. the digitization bottleneck

- EA delineation requires field input and is thus costly in terms of time and materials
- Creation of a census geodatabase at the EA level *still* represents a significant challenge for NSOs, especially when equipment, software and know-how are in short supply

Persistent problems:

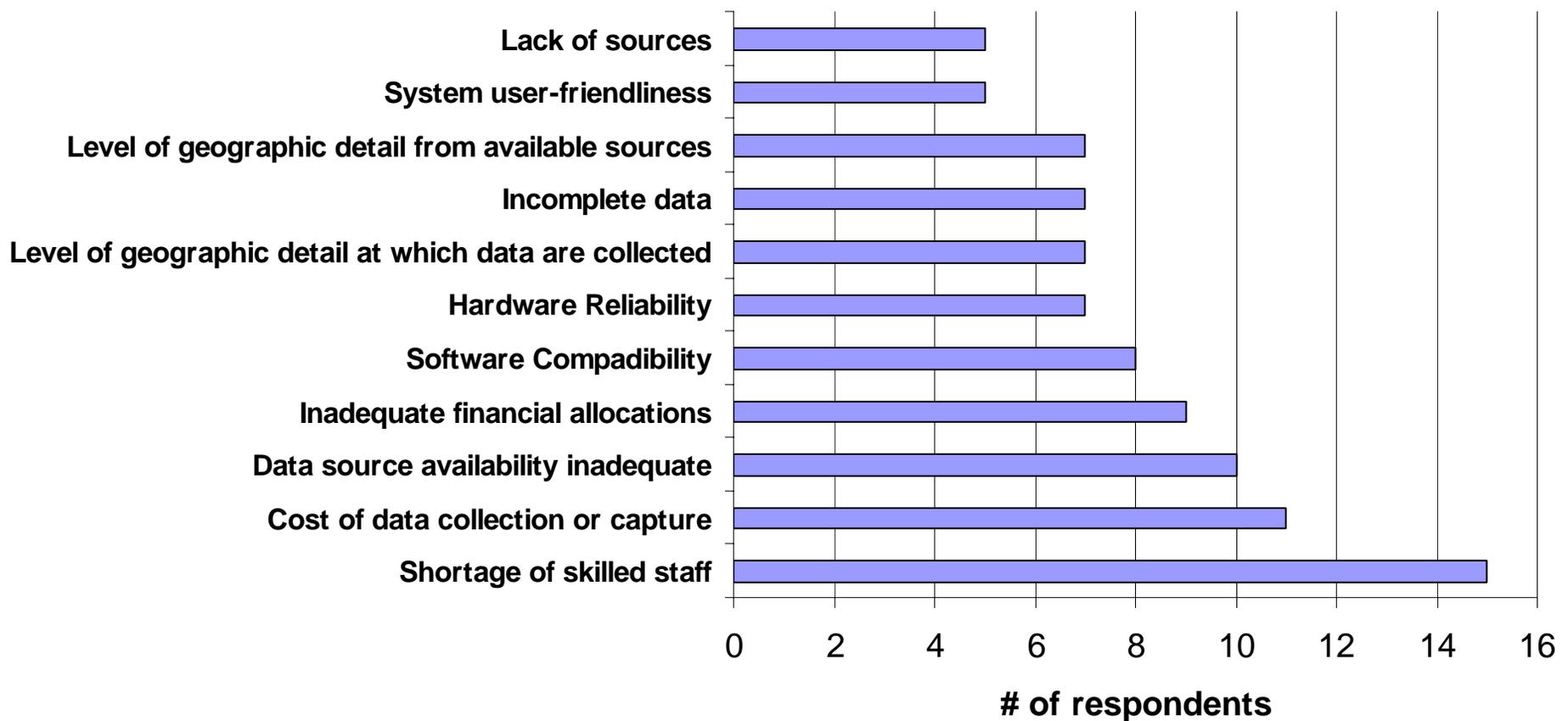
2. Lack of skilled personnel

Need to address HR gaps

- Staff retention
- Secondments
- Use of contractors

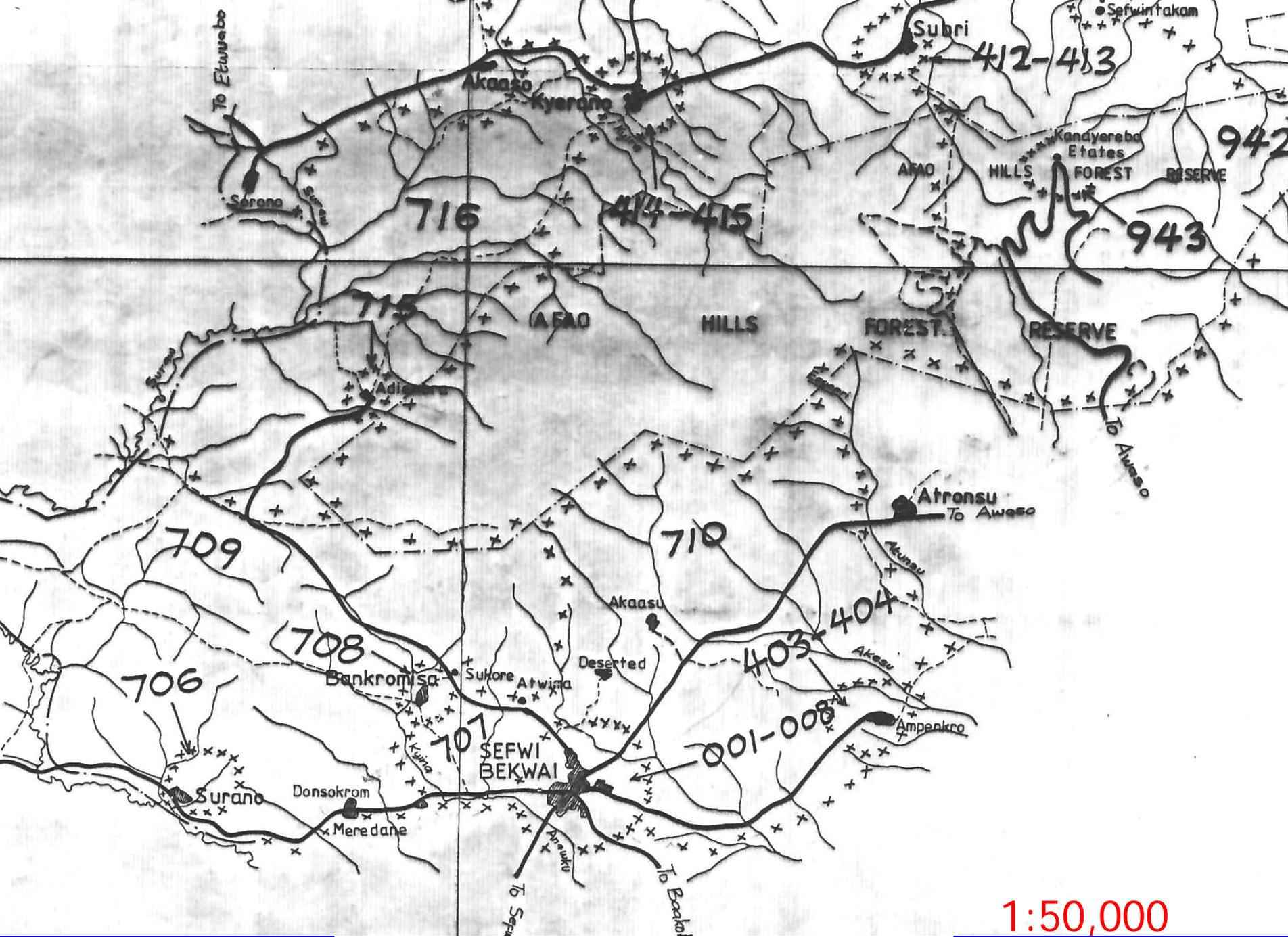
Responses to UNSD Survey on the Use of GIS in Census Mapping

- Major problems encountered in using GIS



Some “good ideas” for 2010

- Technical issues
 - Accessing R/S
 - Proper use of GPS
- Management issues
- Role of outside organizations



1:50,000



CENTRAL STATISTICS OFFICE

SEA MAP

SEA Number: 502070050421

Main Place Name: KAFUE

District Name: KAFUE

Constituency: KAFUE

Ward: MAKATELE

MAP LEGEND

-  District
-  Constituency
-  Community Council
-  SEA Boundary
-  Starting Point
-  Flags



ZAMBIA NATIONAL POPULATION CENSUS 2010
CENTRAL STATISTICS OFFICE
FIELDWORK VERIFICATION SEA MAP

200 Gloucester Road
Ligonhe Road
P.O. Box 319
South Africa
Tel: +27 (0) 369 4506
Fax: +27 (0) 369 4508
http://www.geospace.co.za





REPUBLIC OF NAMIBIA
ENUMERATION AREA MAP

Region: Oshikoto

Const: Oniipa

EA Number: 120899006

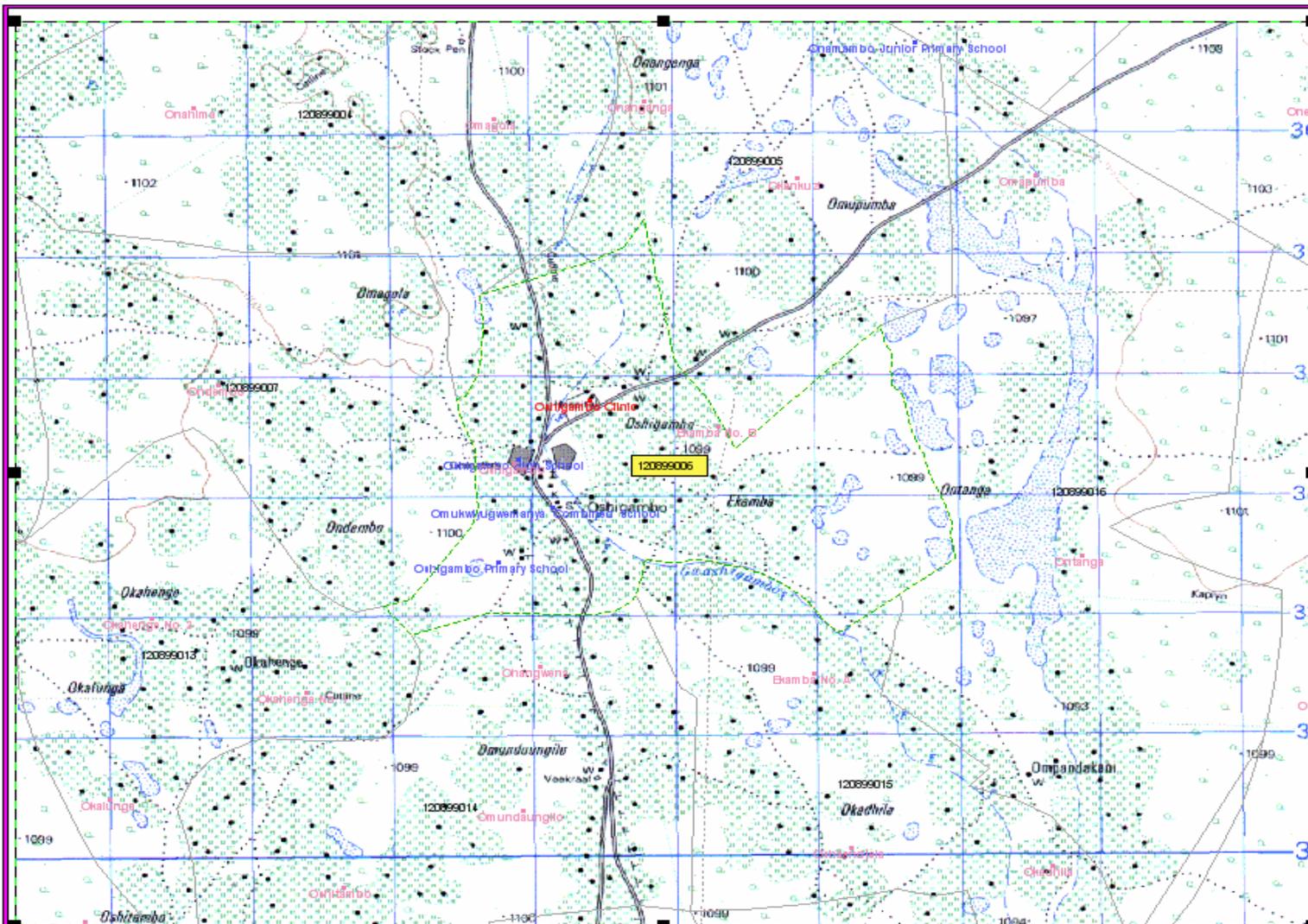
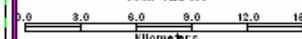
EA - type: Rural Informal

Legend

- | | |
|--|---------------------------|
| | Localty Name |
| | Farm Name |
| | Name of Town or Village |
| | PSU Number |
| | Health Facility |
| | School |
| | Other feature of interest |
| | Trunk Road |
| | Main Road |
| | District Road |
| | Railway |
| | Localty Boundary |
| | Farm Boundary |
| | Cadastral Boundary |
| | National Part. Boundary |
| | Constituency Boundary |
| | Selected PSU |



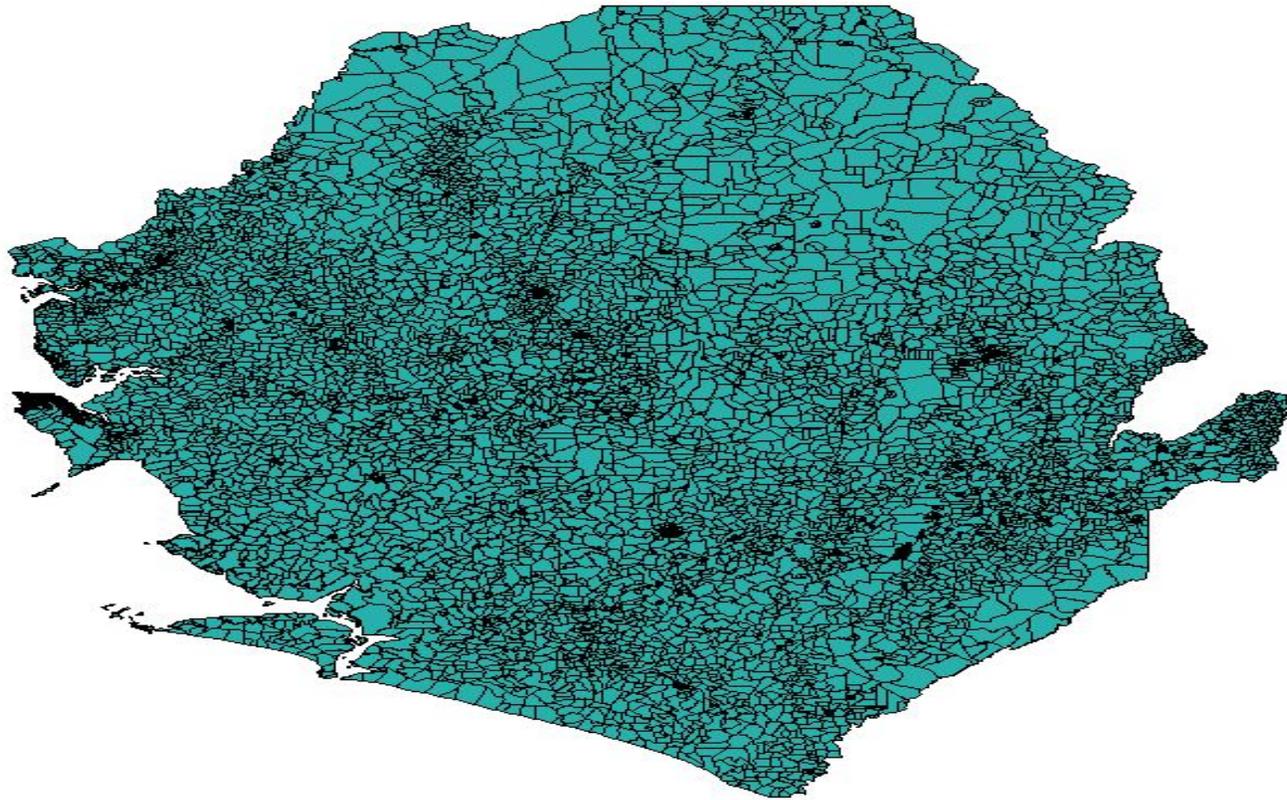
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REPUBLIC OF NAMIBIA
2001 POPULATION AND HOUSING CENSUS

National Planning Commission Secretariat
Central Bureau of Statistics

DIGITIZED EA DATA BASE.



Sierra Leone



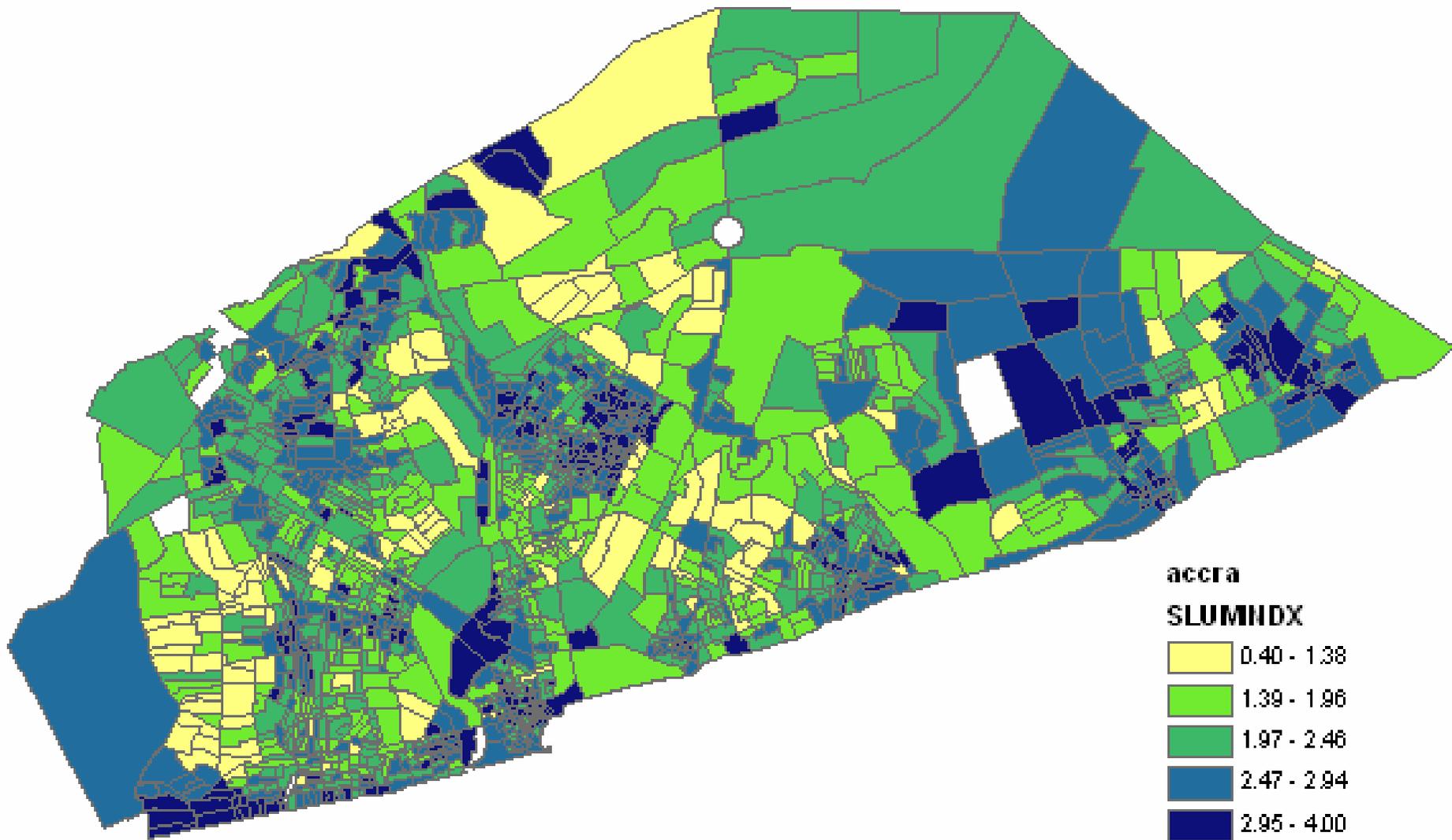
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WASHINGTON DC



A few points to wrap up with:

1. The time is ripe for a global effort to improve census data worldwide, corresponding to the 2010 Round
2. There is a tangible humanitarian and diplomacy value of a focus on improving population information
3. National sovereignty over census planning must be accommodated
4. The field of vulnerability assessment that makes use of more detailed international population information is in need of research and applications