

Presentation to the
**Expert Group Meeting on the United Nations Demographic Yearbook
System**

**Bridging Communities -
Global Statistical Geospatial
Framework**

*Human Geography, Population
Distribution, Spatial
Demographics, ...*

Sharthi Laldaparsad
Statistics South Africa

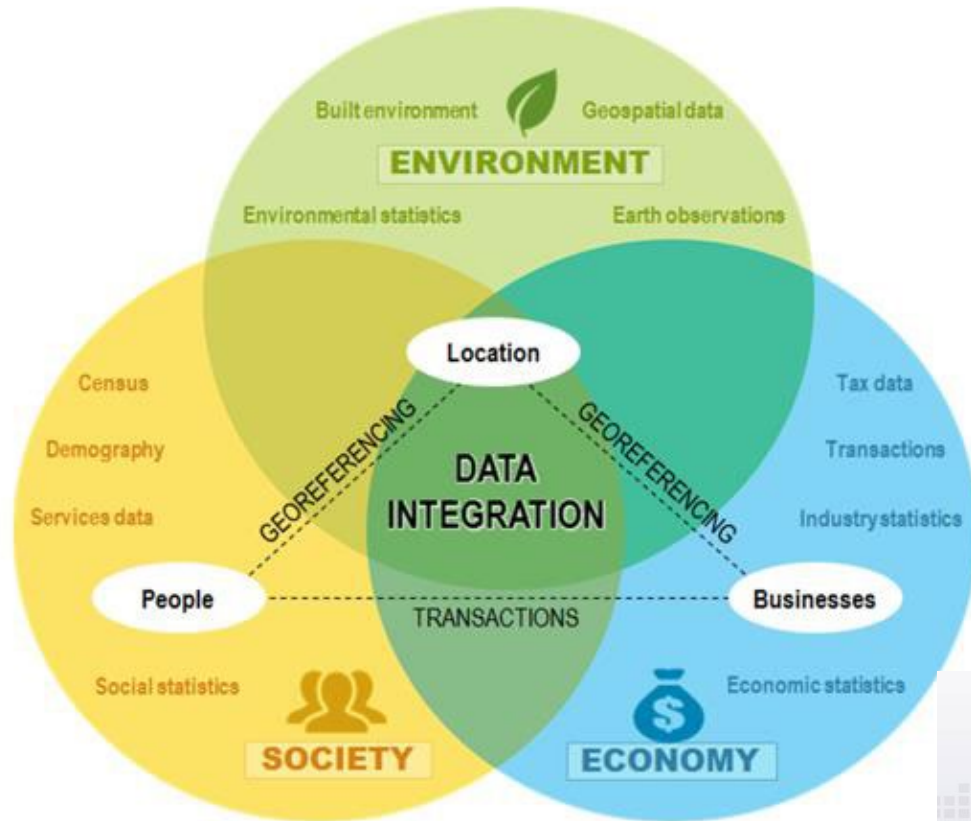


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Bridging Communities - Global Statistical Geospatial Framework



Source: The Global Statistical Geospatial Framework, United Nations (2019)

Interconnection of the 3 key
PILLARS of DEVELOPMENT

Policy questions requires vertical
and horizontal responses

Location, Location, Location ...

GSGF - mechanism for
geospatially enabled statistics



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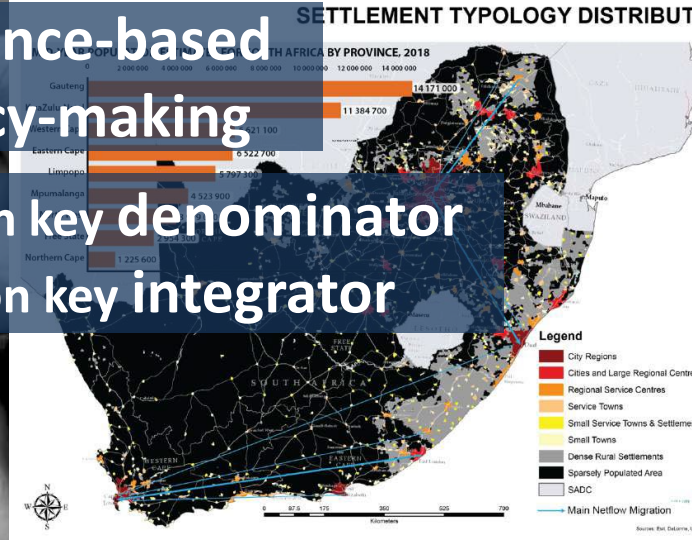
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Evidence-based
policy-making
Population key denominator
Location key integrator



Metropolitan Areas, Cities and Big Regional Towns
Total Population 1 29 633 727
53% of SA Population (2016)

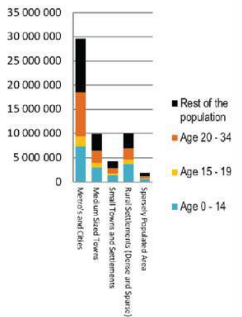
Medium Sized Towns with Regional Service Centres
Total Population 1 9 951 815
18% of SA Population (2016)

Rural Service Centres & Small Towns
Total Population 1 4 328 976
8% of SA Population (2016)

Dense & Scattered Rural Settlements
Total Population 1 10 006 387
18% of SA Population (2016)

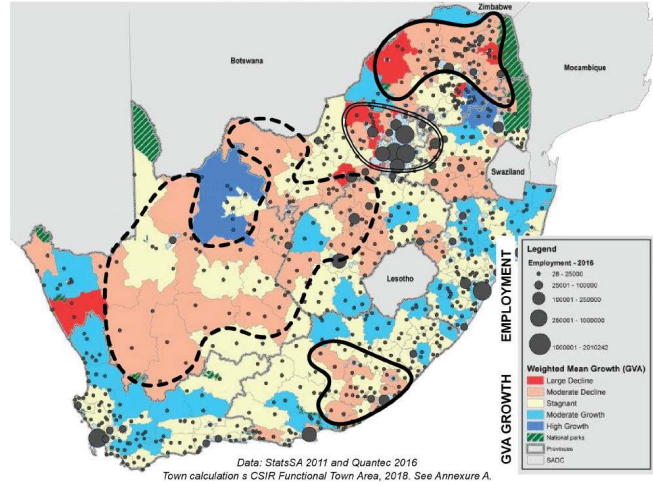
Sparse Settlements
Total Population 1 1 871 207
3% of SA Population (2016)

POPULATION, YOUTH AND TYPES OF SETTLEMENTS



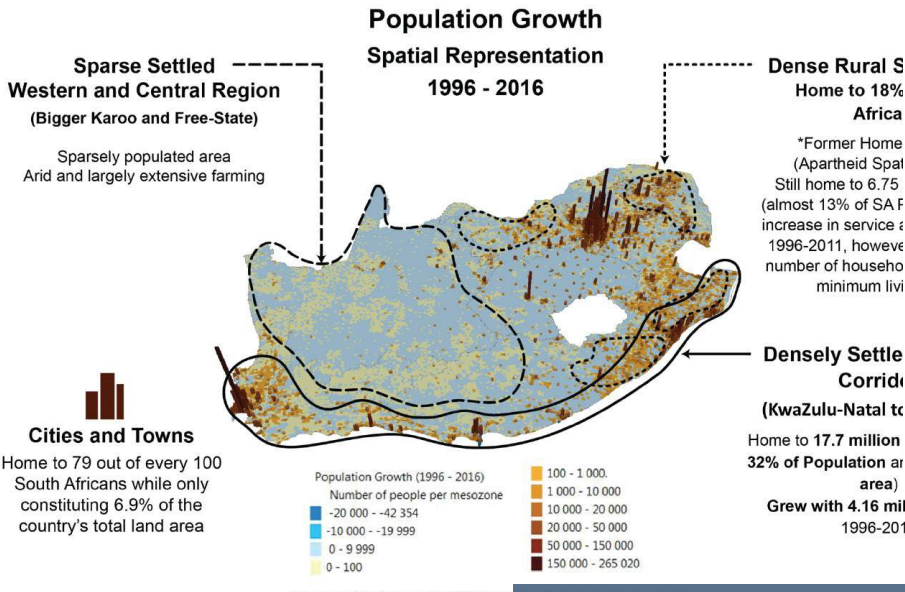
Population Characteristics and Settlement Dynamics Based on StatsSA, 2011, 2018; Quantec 2016, CSIR Town Typology 2018, Vulnerability and Migration Indicators – See Annexure A

REGIONAL ECONOMIC GROWTH AND EMPLOYMENT LM Economic Growth Compared against National Average (2001 - 2016) Employment Calculated per Town



SIGNIFICANT REGIONAL ECONOMIC TRENDS

- The mining dependent economies in the area of slow growth and absolute decline around the Gauteng City Region. Mining production in the area around the metro's declined from 7% of the national Mining output in 1996 to 3.86% in 2016. Unemployment increasing whilst region will continue to face population growth.
- The Bigger Karoo Region, where temperature increases and water security create increasing risks for large number of vulnerable local economies.
- Densely settled areas where employment vulnerability is very high and where population growth exceeds economic growth.
- Large and growing urban regions with stagnant economies and low employment growth

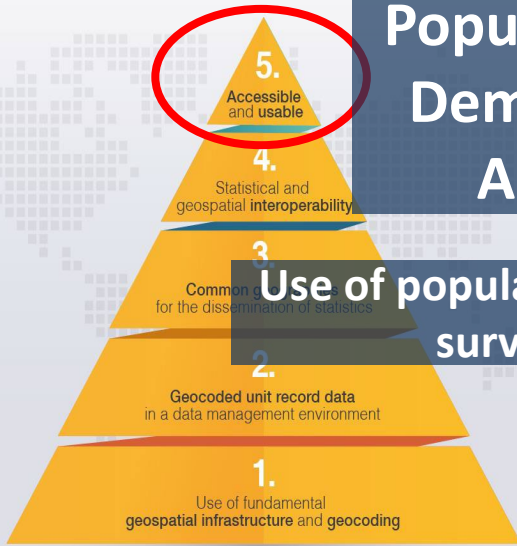


Source: Draft National Spatial Development Framework (2019)



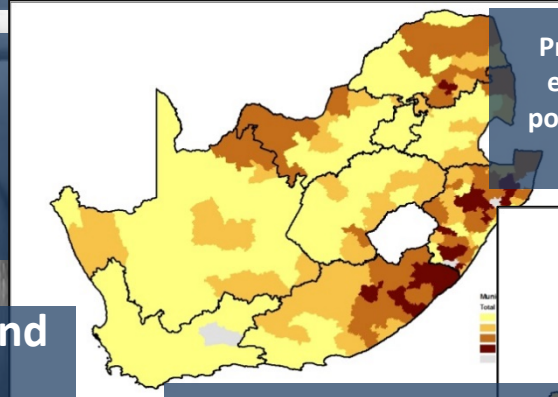
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Population and Demographic Analysis

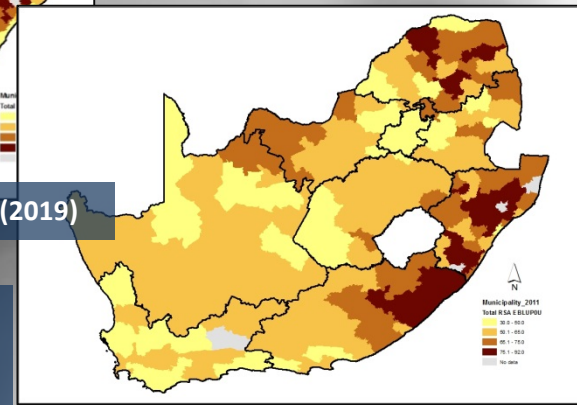


Use of population census and survey data

Scarce resources. Targeted developmental responses



Predictive Modelling. (F-H model based estimates) (a) headcount index (lower poverty line), (b) headcount index (upper poverty line)



Source: Laldaparsad, S (2019)

Predictive Modelling. Covariates from Census 2011 and the Quarterly Labour Force Survey (Q3-2019) – Patterns & trends from 2011 to 2019 - 58 municipalities with persistent unemployment

Population amongst the municipalities in South Africa (40% of the countries population is found in 8 municipalities)

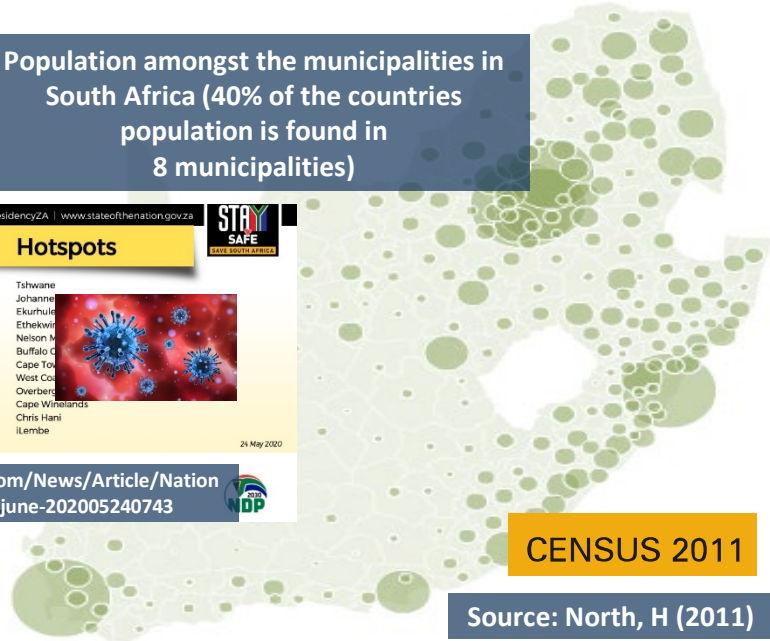
Alert Level 3 | Hotspots

- Tshwane
- Johanne
- Ekurhuleni
- Etheke
- Nelson M
- Buffalo C
- Cape To
- West Co
- Overber
- Cape Wine
- Chris Han
- Ilembe

24 May 2020

<https://www.oudtshoorncourant.com/News/Article/Nation-1-june-202005240743>

Source: Laldaparsad, S (2019)



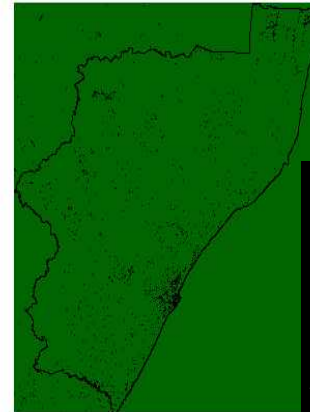
CENSUS 2011

Source: North, H (2011)

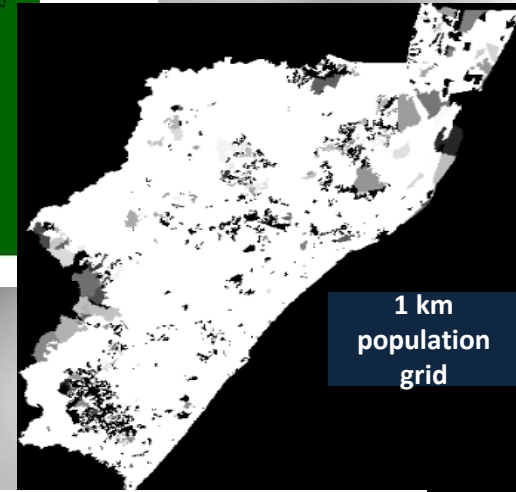
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SASDI & the CSI (SA Spatial Data Infrastructure) (Committee for Spatial Information)

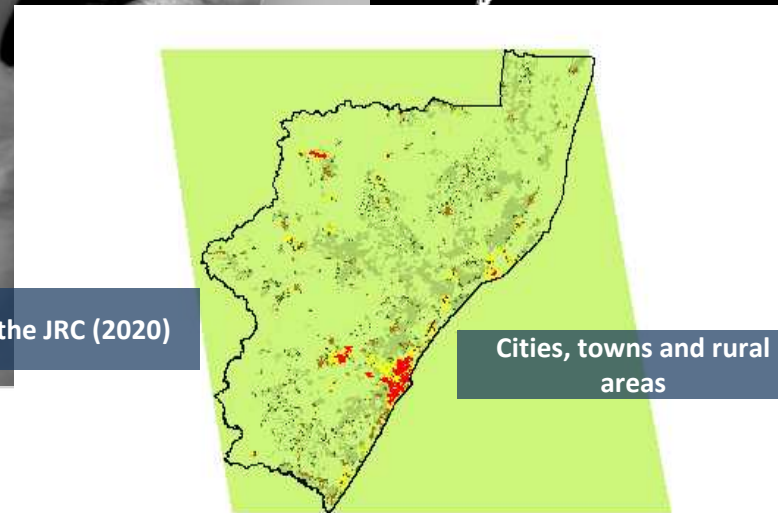
Appointing spatial data
custodians



GLOBAL HUMAN
SETTLEMENTS LAYER
(2019)



1 km
population
grid



Cities, towns and rural
areas

Source: Laldaparsad, S. & the JRC (2020)



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Geo-coding
Carry the geography please with all data collected!

at the *unit* level

and **Geo-coding**
enables Principle 3

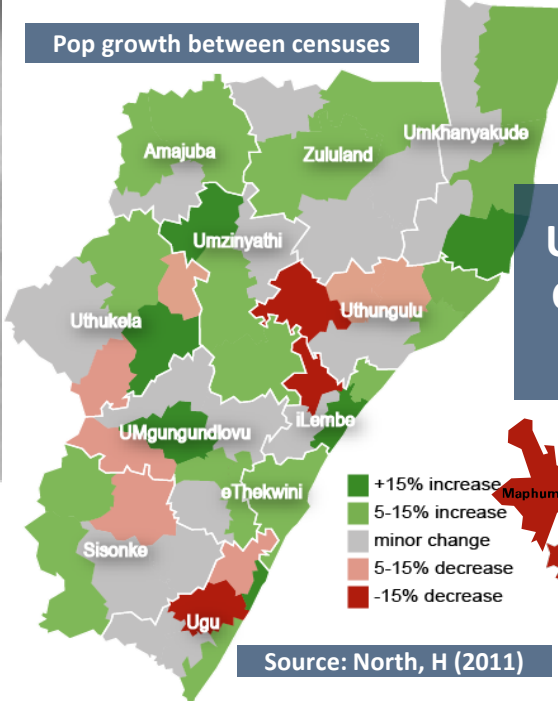
Stats SA's Digital transformation

PAPI to CAPI

to Mixed Mode

Geospatial-statistical base (address \ dwelling \ location spatial link)

Unexpected **CHALLENGES**
 Change management, skills, standards, coordination, ...



+2% growth

-1,5% growth



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Source: North, H (2011)



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Challenges with **implementing** the GSGF

Speedy **implementation!** of SASDI (South African Spatial Data Infrastructure) (synergistic-collaborative geospatial infrastructure)

and similarly **implementation!** NSS (National Statistical System) (official statistics (cost, context, currency, geographic disaggregation, new data, new methods, new technologies, new skills, ...), register (access, quality, ...) and admin data (access, quality, ... COVID19 classic example), private sector data (privacy, ...) and other alternative data)

together Data Custodians, Data Quality: Standards & Methods, Data Maintenance - Data Plans, and importantly Data CONTEXT (as expressed in National, Regional, Global Policy Frameworks)

implementation, implementation, implementation!



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Thank you
sharthil@statssa.gov.za



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