

***“Achieving the Vision”***  
**Geo-statistical integration addressing South  
Africa’s Developmental Agenda**

***Sharthi Laldaparsad***

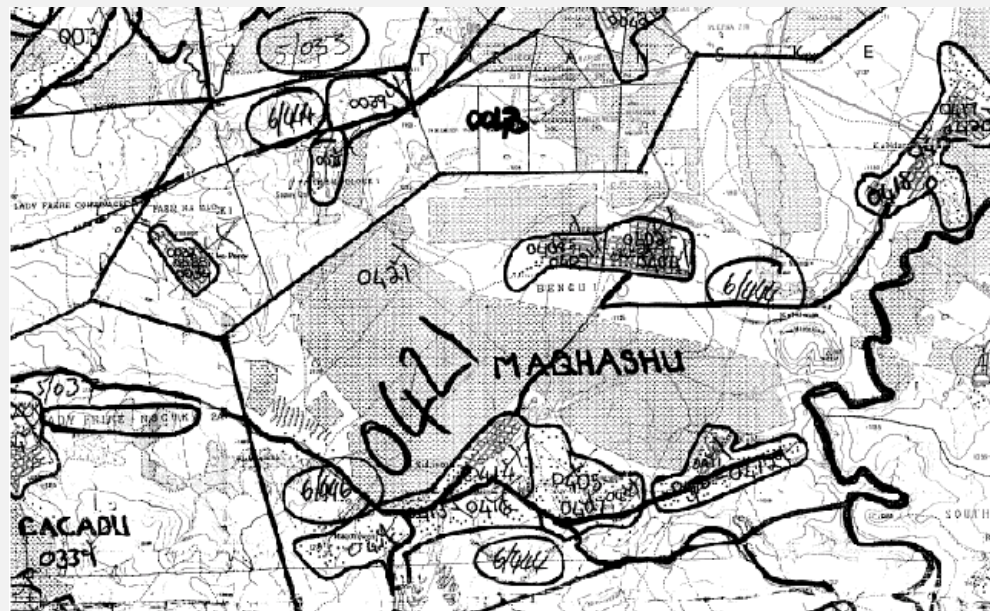
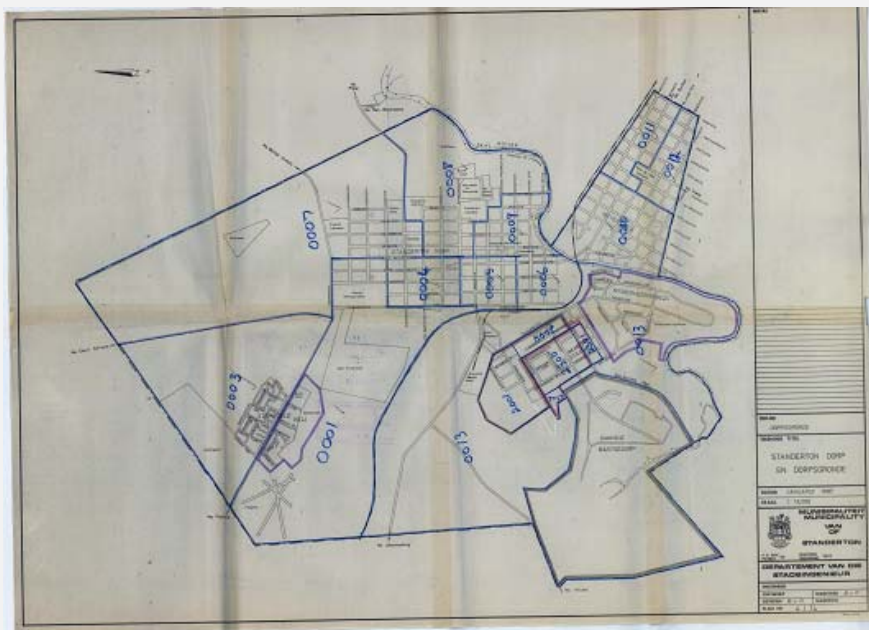
**Statistics South Africa  
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**UN Global Forum on Integration of Statistical and Geospatial Information  
4 August 2014, NY, USA**

# Contents . . .

- **Our experience. What has it thought us about geo-statistical integration?**
- **SA Spatial Data Infrastructure (SASDI)**
- **SA Developmental Agenda**
- **Spatial Analysis focus**
- **Concluding remarks**

# 1996 Census laid the foundation for many things...



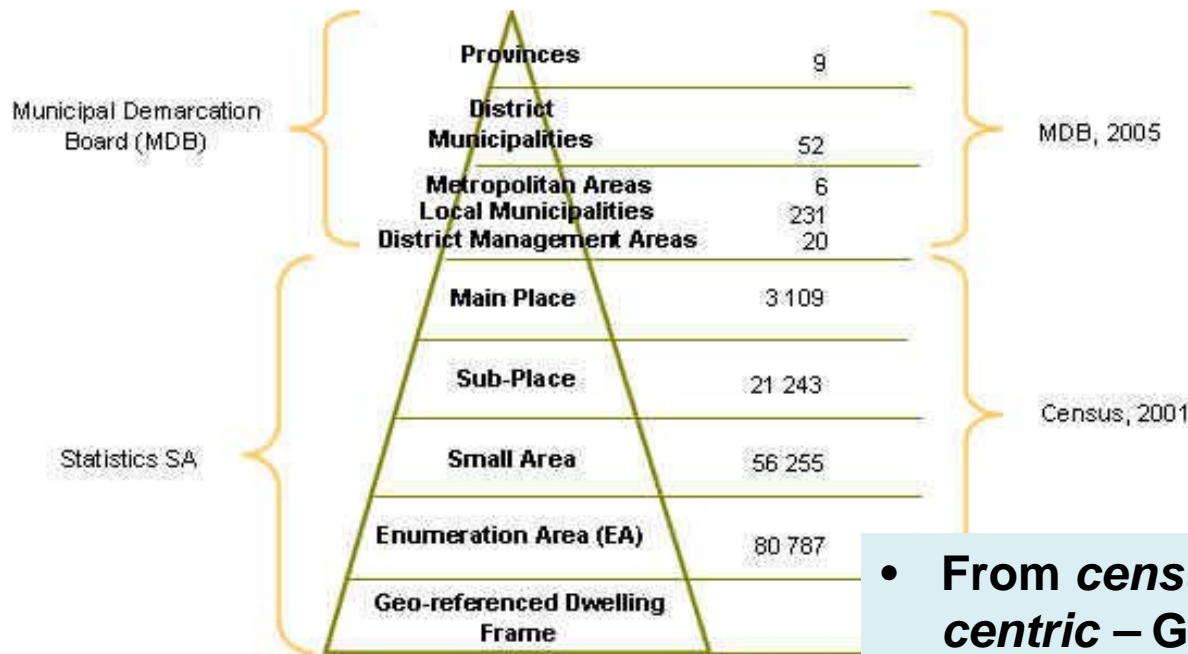
Form / Vorm 02  
 District: NELSPRUIT N/U  
 Census officer: [Signature]

1991 No	1996 No	Type	City, suburb, town, name / Stad, voorstad, dorps, landelik	Description of boundaries of EA / Omskrywing van grense van DG	Estimated population / Gesamde bevolking
4209	0157	35	Ngodwana village Official residence	Start from the Police station (SAP) and go North along the street across Larkfield street to Meenah Avenue. Proceed along Meenah Avenue to the North until you reach house no 41 Windsor street. Turn East and proceed along Windsor street until you reach intersection of Shoalhaven Avenue and Windsor street. Turn South east along Shoalhaven Avenue until you reach house no 3. Turn South east along Stonewood Drive. Turn to Kaspecheop road when you have passed house no 7 Stonewood Drive. Turn North west along the Kaspecheop road until you reach the entrance to Sudbrooke Ave. Turn West to the starting point when you reach the intersection of Sudbrooke Ave and Longview Drive. refer the EA to attached map please	455

APPROVED GOEDGEKEUR

- **1<sup>st</sup> set of digital EAs for SA. 1<sup>st</sup> spatial set of places. SuperCross/ Map.**
- **4 Government Departments working collaboratively towards common goal (Stats SA, Rural Development, Independent Electoral Commission, Municipal Demarcation Board)**
- **Key fundamental principles**
  - Collaborative maintenance of fundamental geographic data sets
  - Geo-statistical building block

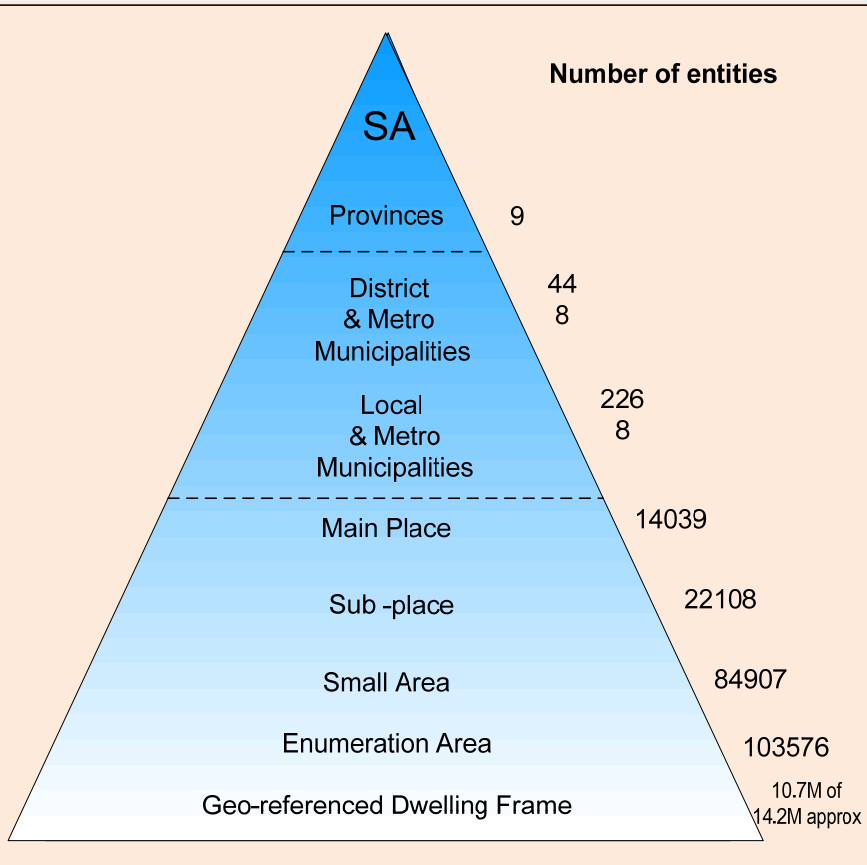
# 2001 Census ...



- **From census-centric to corporate centric – Geography Division was established.**
- **Maintain a Standard Geographic Frame.**
- **Collaborative arrangements for spatial data.**
- **Addressing the un-addressed. The start of the Dwelling Frame. Aggressive data collection process from Cities, Municipalities, other Government Departments, private sector purchase.**



# 2011 Census ...



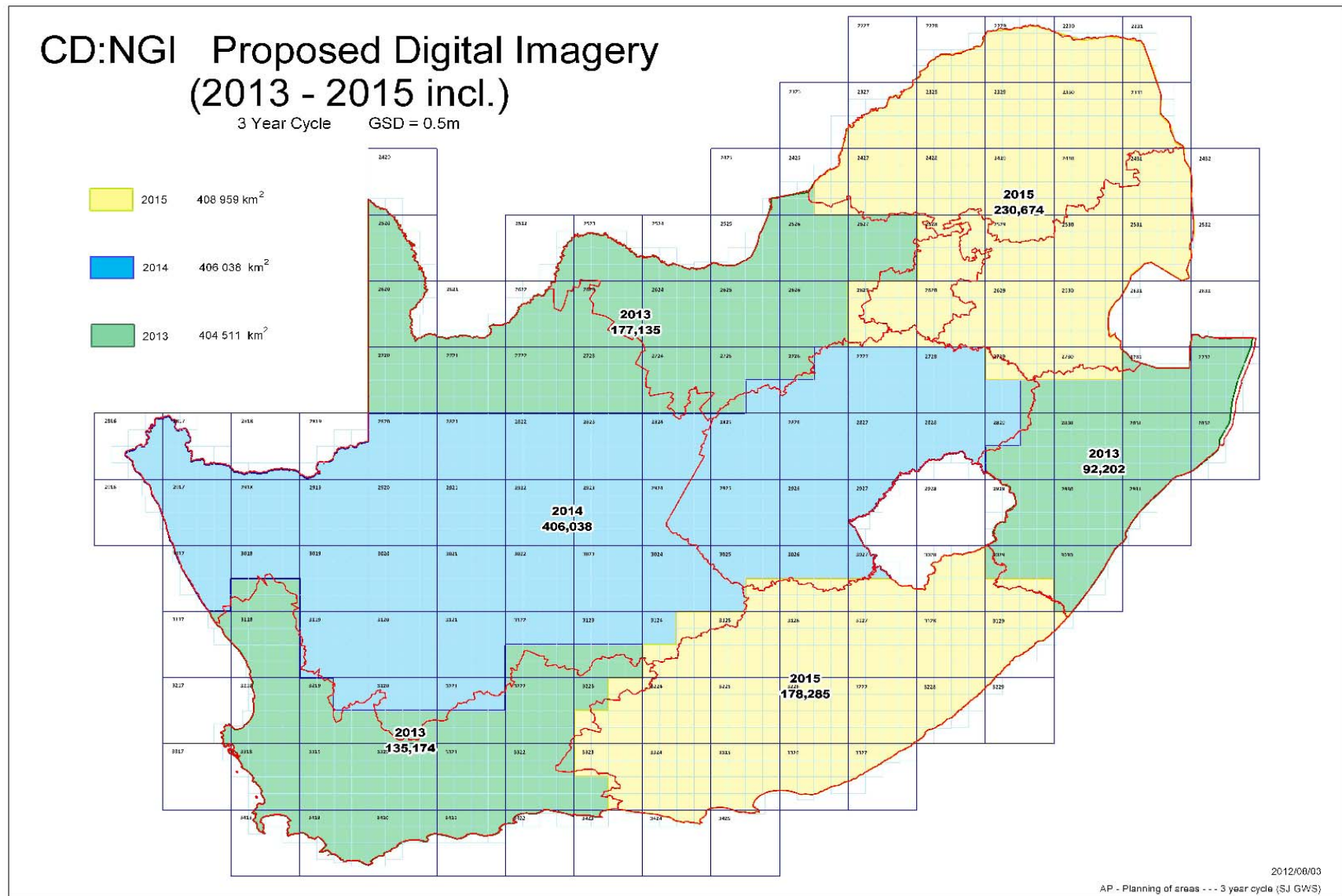
- Dwelling points together with aerial & satellite photography basis for demarcation. Dwelling Frame updated from census listings.
- ***Maintain a Standard Geographic Frame.***
- ***Collaborative arrangements for spatial data.***
- ***Resurrection of the Committee of Spatial Information (CSI) & SASDI.***
- ***First draft of SA's National Development Plan was released.***
- ***Team of 12 goes back to school "the CRUISE program" was established.***



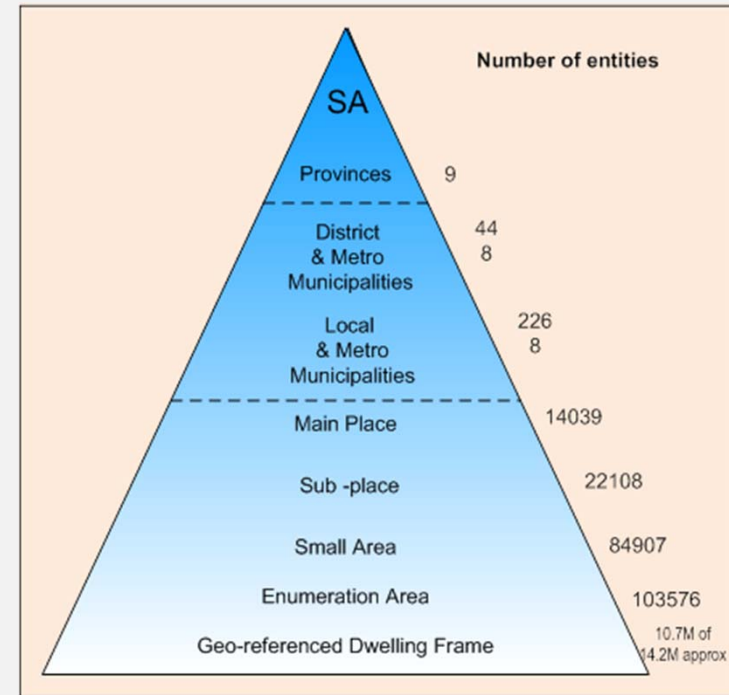
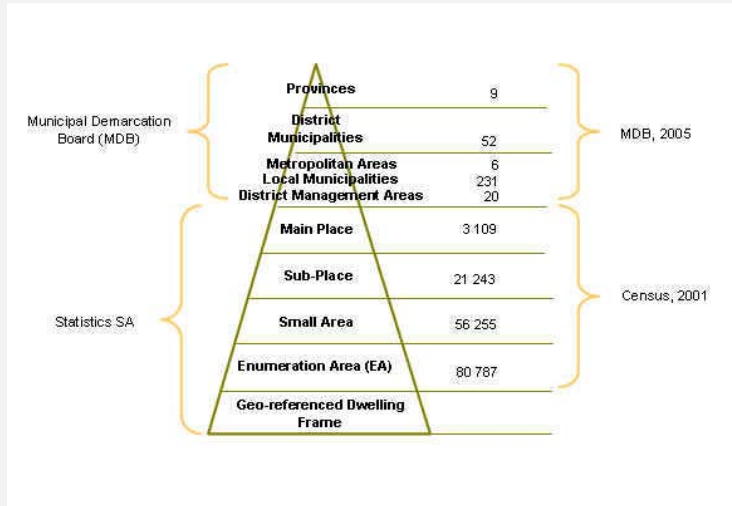
# Collaborative arrangements for spatial data ...

National Government Departments		Data sets	Period	Cost	
CDNGI ( Rural Development)	Imagery (2008-2011), topo sheets/ vectors, place names	Imagery-2008-2011	Gov data exchange; R7.7 mil		
Dept of Human Settlement	Informal Settlements, RDP housing	2010	Gov data exchange		
Dept of Education	School points	2010	Gov data exchange		
Dept of Health	Hospitals, clinics	2009	Gov data exchange		
Dept of Rural Development: Surveyor General	National Cadastre	<b>Private Sector / Parastatal</b>	<b>Data sets</b>	<b>Period</b>	<b>Cost</b>
Dept of Rural Development: Spatial planning	Tribal Boundaries				
Dept of Water Affairs	Villages ( rural comm and reservoirs				
Dept Of Local Government and Traditional affairs - KZN( Current Cogta)	Tribal Boundaries, w				
MDB	Municipal Boundaries and Provincial bound				
IEC	Wards and Voting st data where voting t				
South African Police	Police Stations, polic attributes (National Excel format				
SanParks	Private nature reser national parks, prov				
Different Metros	Imagery and vector zones, cadastre)				
	AFRIGIS				
	Eskom	Spot (Spatial )Building Count points and polygon data	2009/ 2010	Data exchange collaboration in place	
	Geospace and other imagery service providers	Imagery		Gov data exchange	

# Collaborative arrangements for spatial data continues ...



# Our experience. What has stood the test of time? ...



**Standard Geographic Frame  
(consistent & stable over time)**

**Geo-statistical Building Block against which information can be collected & rolled up for dissemination**

**Updated & reliable fundamental sampling frames: Dwelling/ Address Frames; the Business Frame**

**Built a dependency on other data suppliers/ producers. We want quality data from them. Dependency on a functioning SASDI. Therefore statistics supports the SASDI development.**



# **Resurrection of the Committee for Spatial Information; Establishment of SASDI ...**

- **SDI Act was promulgated in 2003.**
- ***Main focus to establish South African Spatial Data Infrastructure (SASDI). Promoting Availability, Accessibility, Usability, Relevance, Reliability – for spatial information.***
- ***1<sup>st</sup> meeting of Committee for Spatial Information (CSI) June 2010.***
- ***CSI Sub-Committees established. Work of sub-committees began April 2011. Stats SA was assigned responsibility for the Data Sub-committee.***
- ***Achievements: Defining core spatial data sets & the list of data custodians; define & develop the metadata catalogue; SASDI Website up and running although not a fully-fledged geo-portal as yet; policies, guidelines & procedures drafted.***
- ***Busy with South African Geo-Information Management Strategy:***
  - ***Embedding spatial data within the country's Developmental Agenda. Giving it relevance. Promoting its usability.***
  - ***Strategically locating the function of spatial data coordination; leadership***

# South Africa's National Development Plan (NDP) - Vision 2030

## THE DIAGNOSTIC

- **Evidence-based. Spatial & Statistical information basis for planning, monitoring and evaluation – South Africa's Developmental Agenda**

### Case of INDONESIA

#### 3 PILLARS OF SUSTAINABLE DEVELOPMENT

ENVIRONMENT

SOCIAL

ECONOMIC

LOCATION AND FACT-BASED POLICY MAKING

THE MANAGEMENT OF NATIONAL  
GEOSPATIAL INFORMATION

#### 5 PILLARS OF GEOSPATIAL INFORMATION INFRASTRUCTURE

INSTITUTIONAL ARRANGEMENT

STANDARDS

HUMAN RESOURCES

SCIENCE & TECHNOLOGY

POLICY & REGULATION

Adapted from Karsidi (unknown date)

- **Clear statement of priorities.**
- **Adopted by Cabinet**
- **Alignment of short-term, medium-term & long-term planning**

Use  
resources  
properly

clusive  
ning

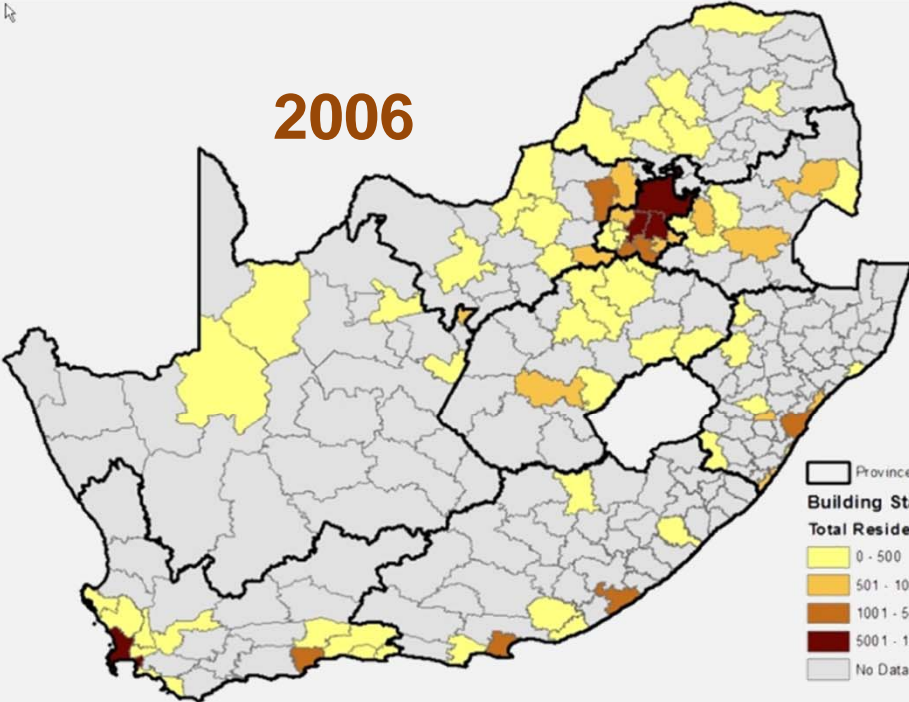
Quality  
healthcare

Quality  
education

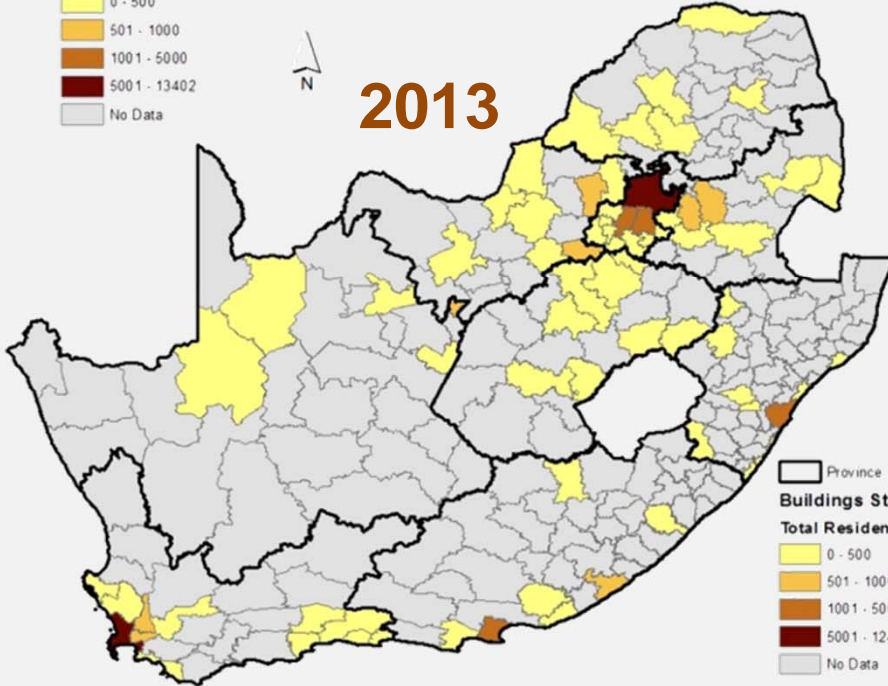
## CRUISE Programme ...

- ***Usability of data. The STORY about our country. Builds on our motto - The South Africa I know. The HOME I understand.***
- ***Builds geo-spatial statistical thinking. Expands the depth & breadth of our information needs.***
- ***1 year intensive Masters Programme. Produces journal articles, dealing with critical aspects of our developmental agenda using spatial and statistical data like transforming spatial distortions in settlement planning; the impact of corridor development; municipal service delivery, etc.***

# Number of buildings completed

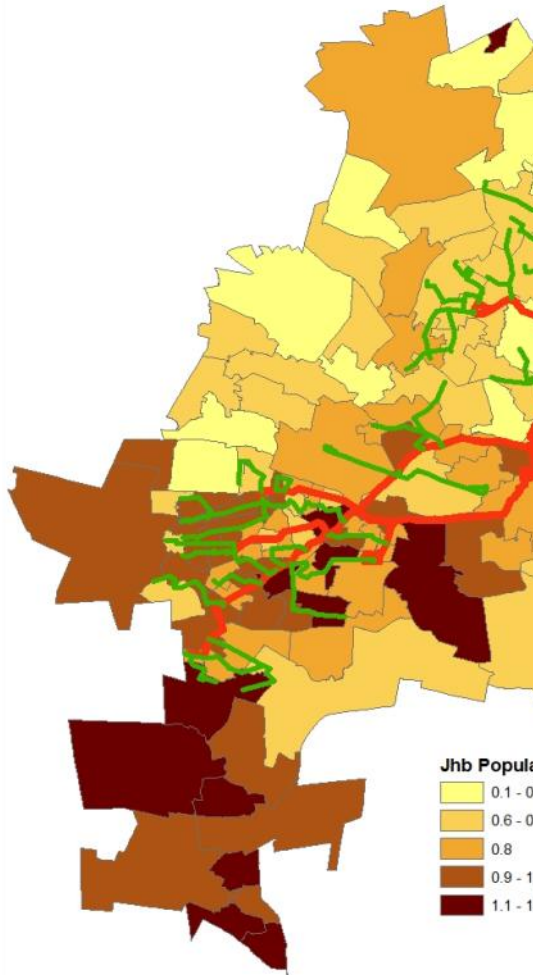


*In both 2006 and 2013, Cape Town and Tswane completed the most number of buildings*

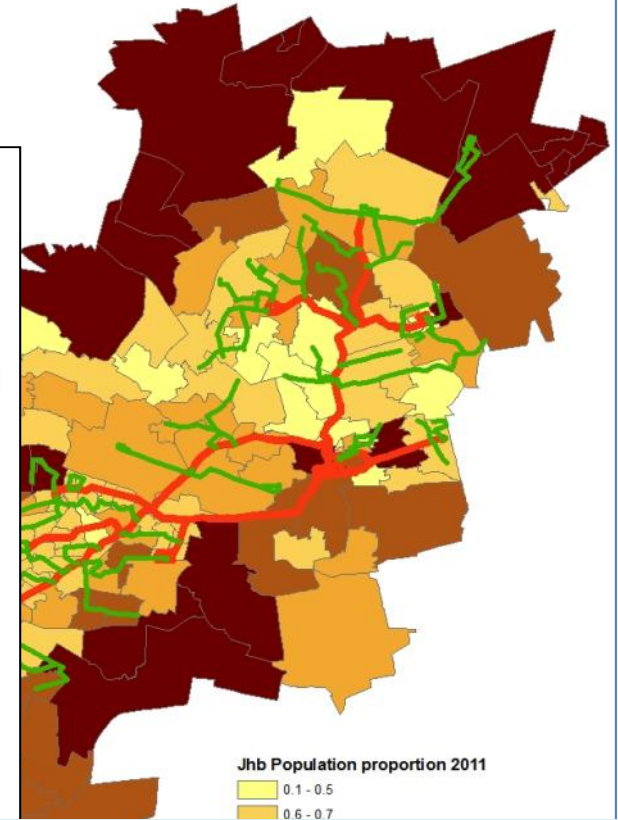


# Municipal Capital Investment Framework & Spatial Development Frameworks

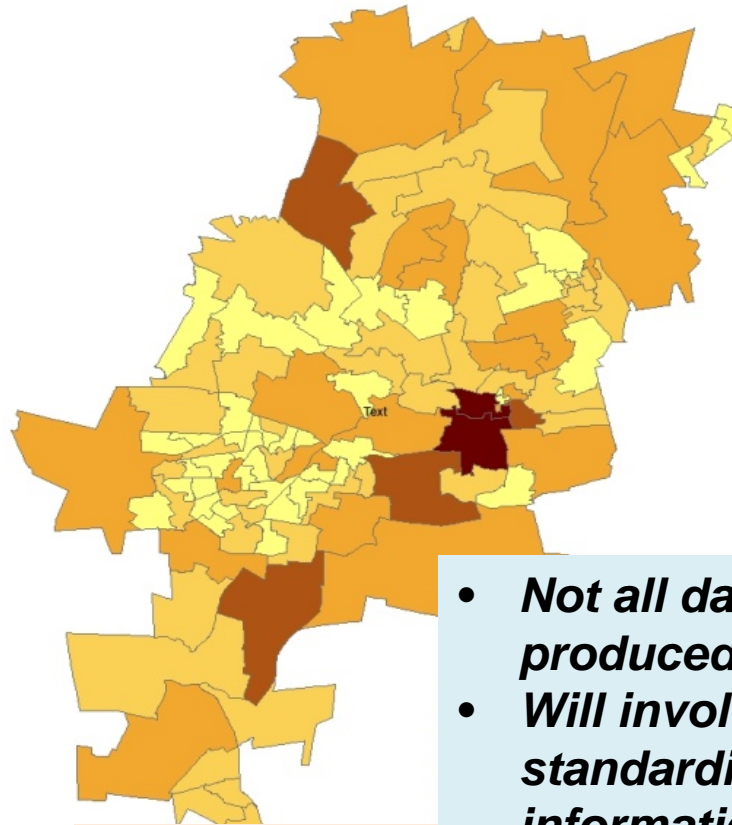
Census 2001 Population



Census 2011 Population



City of Johannesburg  
Distribution of Capital Budget (2007/8 - 2011/12): Total



Public Capital

- *Not all data used for planning is produced by Stats SA.*
- *Will involve collecting, standardizing, utilizing important information from other sources.*
- *Dependency on a functioning NSS.*

## **Concluding remarks ...**

- ***SASDI is not at a mature stage. Still difficulties with cooperation, data integration & harmonization, funding and leadership.***
- ***Relevance with respect to SA Developmental Agenda for both the GEO & the STATISTICS needs re-strategising to collect, structure & present for Government's priorities.***
- ***Censuses, surveys or statistical data in general, requires geography, the smaller (detail) the geography the better for planning. Statistics will benefit from a functioning SASDI & SASDI from statistics.***
- ***Geo-statistical integration important. Stakeholders that collect statistics (like local municipalities, education, health, policing, and other sector Departments) must maintain the links with the smallest (lowest) geography – can be rolled up to place, ward, municipality, province or any other geography.***
- ***Geo-statistical building block against which we all can collect data.***
- ***Successful implementation of the National Statistical System (NSS)(part of the Statistics Act) & SASDI is important for South Africa's growth and development.***

**“ most dramatic and visible  
expression of the efficacy of our  
democracy “**

**Evidence-based (Geo-Statistical)  
analysis that informs service delivery,  
growth & development**

**SA Developmental Agenda**

**SASDI - NSS**

**History/ Past**

**ght us about**

**SASDI**

**History/ Past**

**SASDI - NSS**

**SA Developmental Agenda**

**Evidence-based (Geo-Statistical)  
analysis that informs service delivery,  
growth & development**

# Thank U

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