

African Planning Workshop

16 April 2003

Sandton: Gauteng

Services & Infrastructure

S'bonisile Zama

GLS Specialist:HSRC



Long-Term Vision of our Government

- a competitive fast growing economy which creates an enabling environment for job creation
- a redistribution of income and opportunities in favour of the poor
- a society in which sound health, education and other services are available to all; and
- an environment in which homes are secure and places of work are productive



Components of the Session

Policing & Crime

Access to services & infrastructure

Human Resource Development



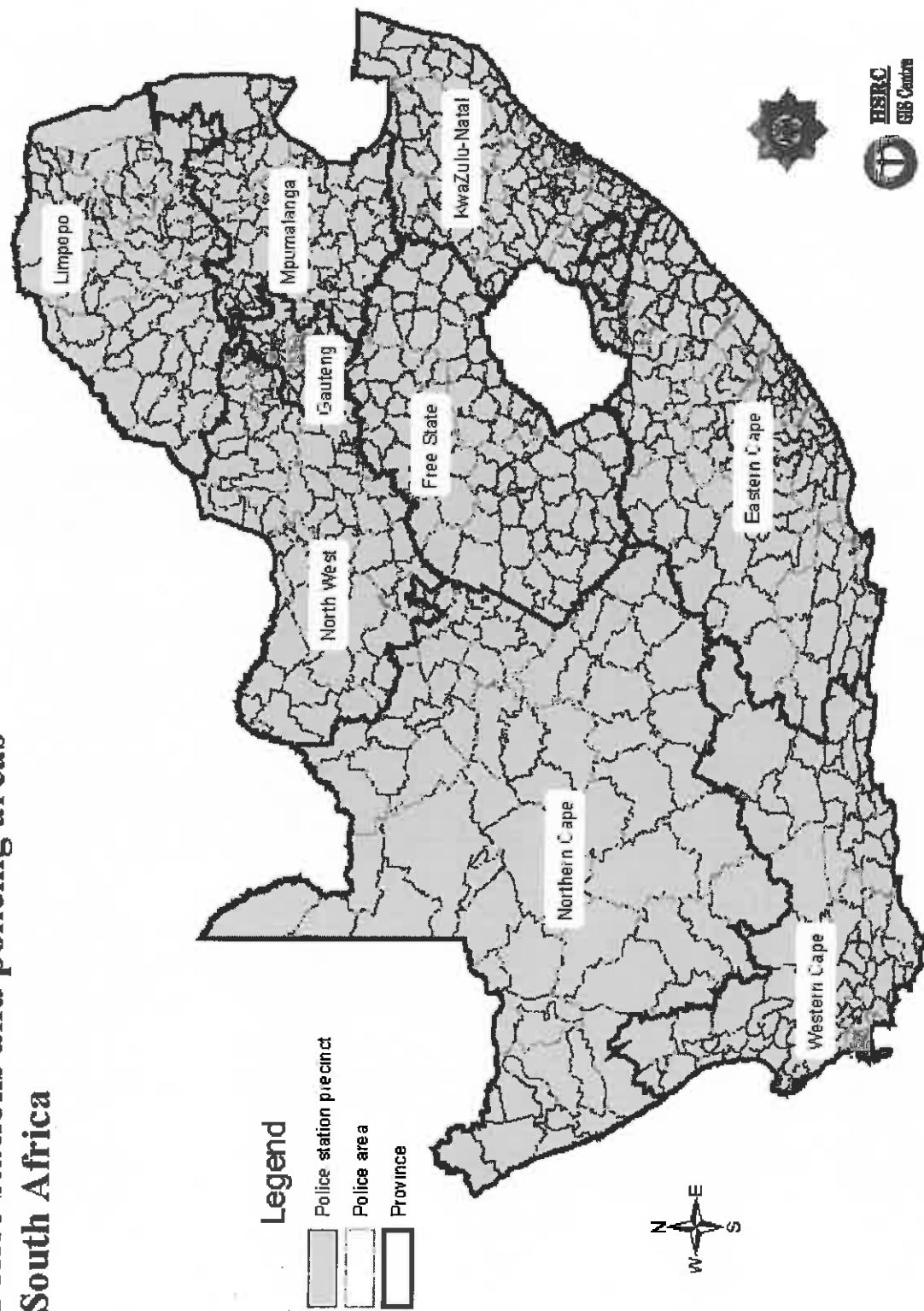
Policing & Crime

Geographic information

- Point location of police stations
- Police station precinct
- Police area boundaries

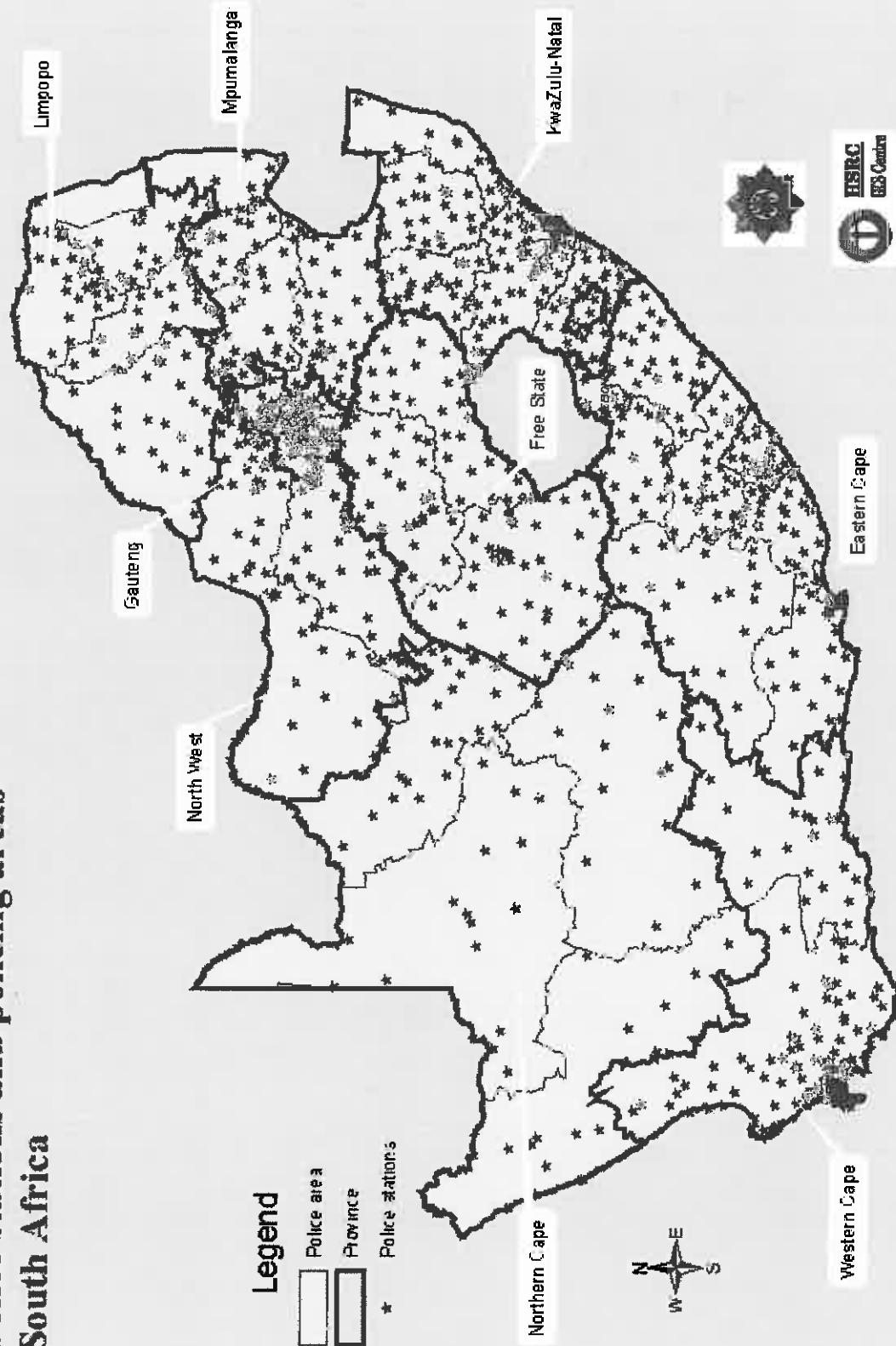


Police stations and policing areas South Africa



Source: SAPS 2000

Police stations and policing areas South Africa



Source: SAPS 2000

Policing & crime

Attribute data

- Crime categories (37)
- Socio-economic statistics



Reported murder cases South Africa

Legend



Province

Reported murders

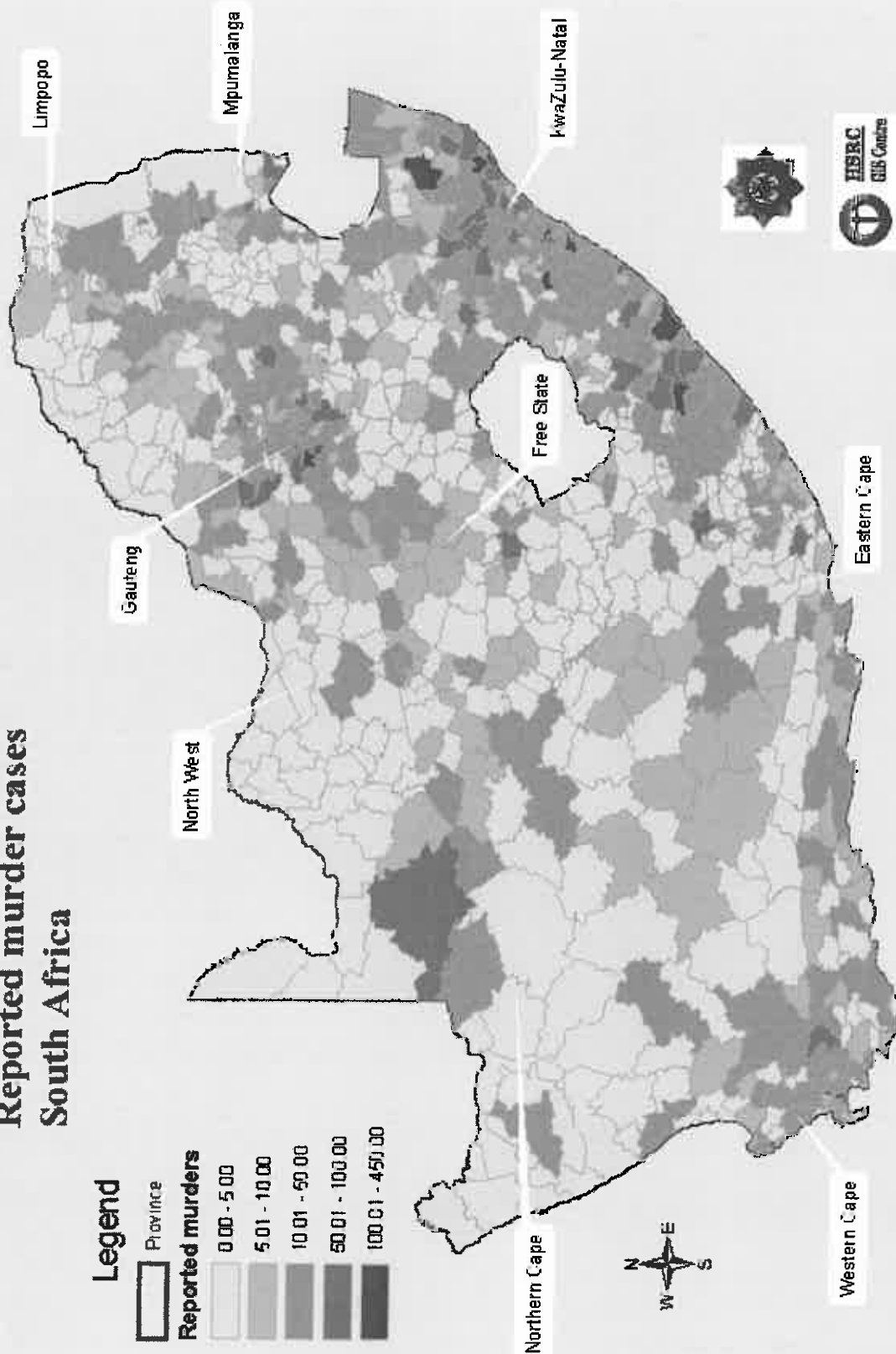
0 00 - 5 00

5 01 - 10 00

10 01 - 50 00

50 01 - 100 00

100 01 - 450 00



Source: SAPS 2000

Policing & crime

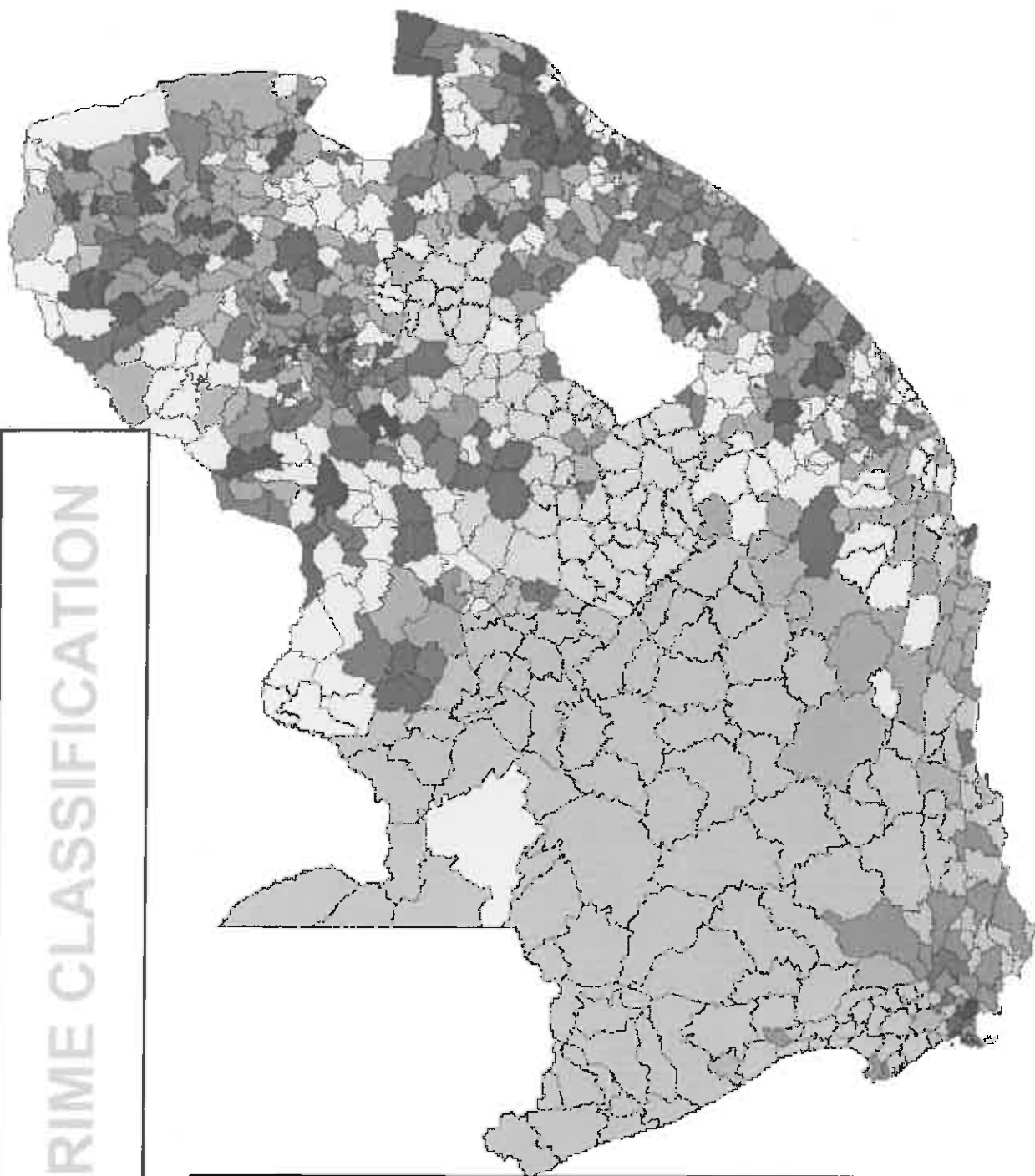
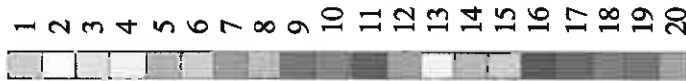
Information for effective policing

- Who is being serviced (demographics of the area)
- Socio-economic characteristic (poverty, unemployment etc)
- Crime hot spots
- SAPS resources (personnel, number of vehicles,computers etc)
- Accessibility (proximity of police station to the community, transport infrastructure etc)
- Capacity building (training & upgrading programs for SAPS)
- Service awareness programs



CRIME CLASSIFICATION

Categories



Access to services & infrastructure

**Composite indices for service need
and service provision**

**Composite index for development/
poverty**

**Detailed statistics on services and
socio-development issues in South
Africa**



Access to services & infrastructure

Importance of this information

Distribution of services

Identify areas of backlog

Informed infrastructure planning



Access to services & infrastructure

Compare

KwaZulu-Natal

Eastern Cape

Limpopo

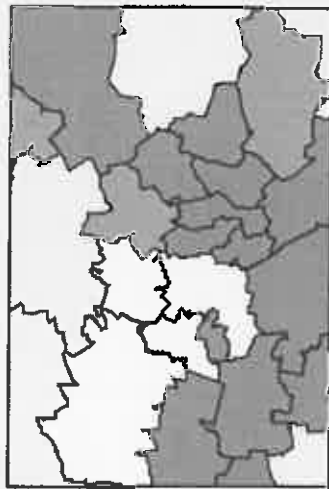
Gauteng

Western Cape

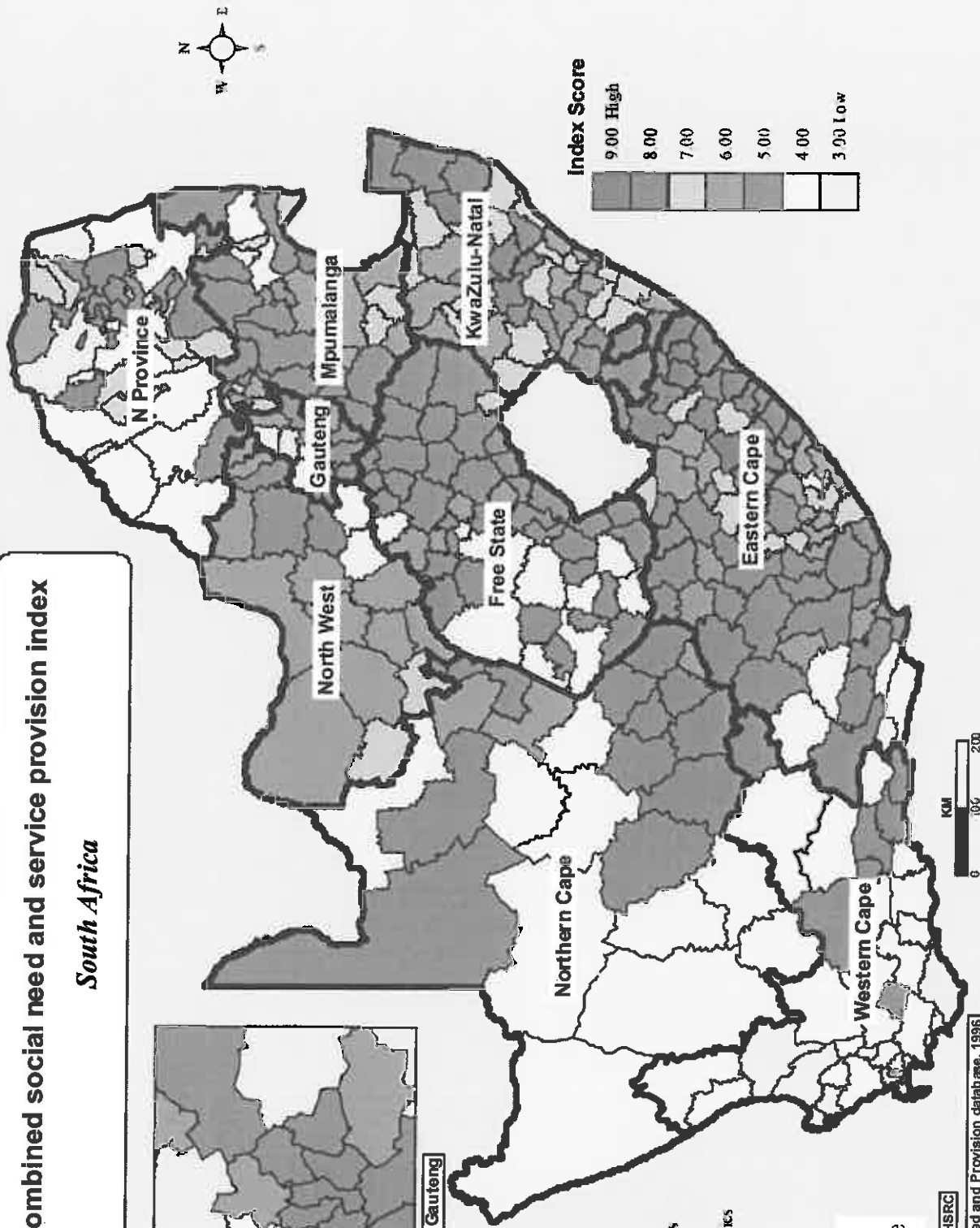


Combined social need and service provision index

South Africa



Insert: Enlargement of Gauteng



Index Score



Layers

- Magisterial districts
- Provincial boundaries



Produced by: GIS Centre: HSRC

Source: HSRC Service Need and Provision database, 1996



Human Resource Development

Education & training

- Education institutions (schools & tertiary institutions

- Adult Basic education & training

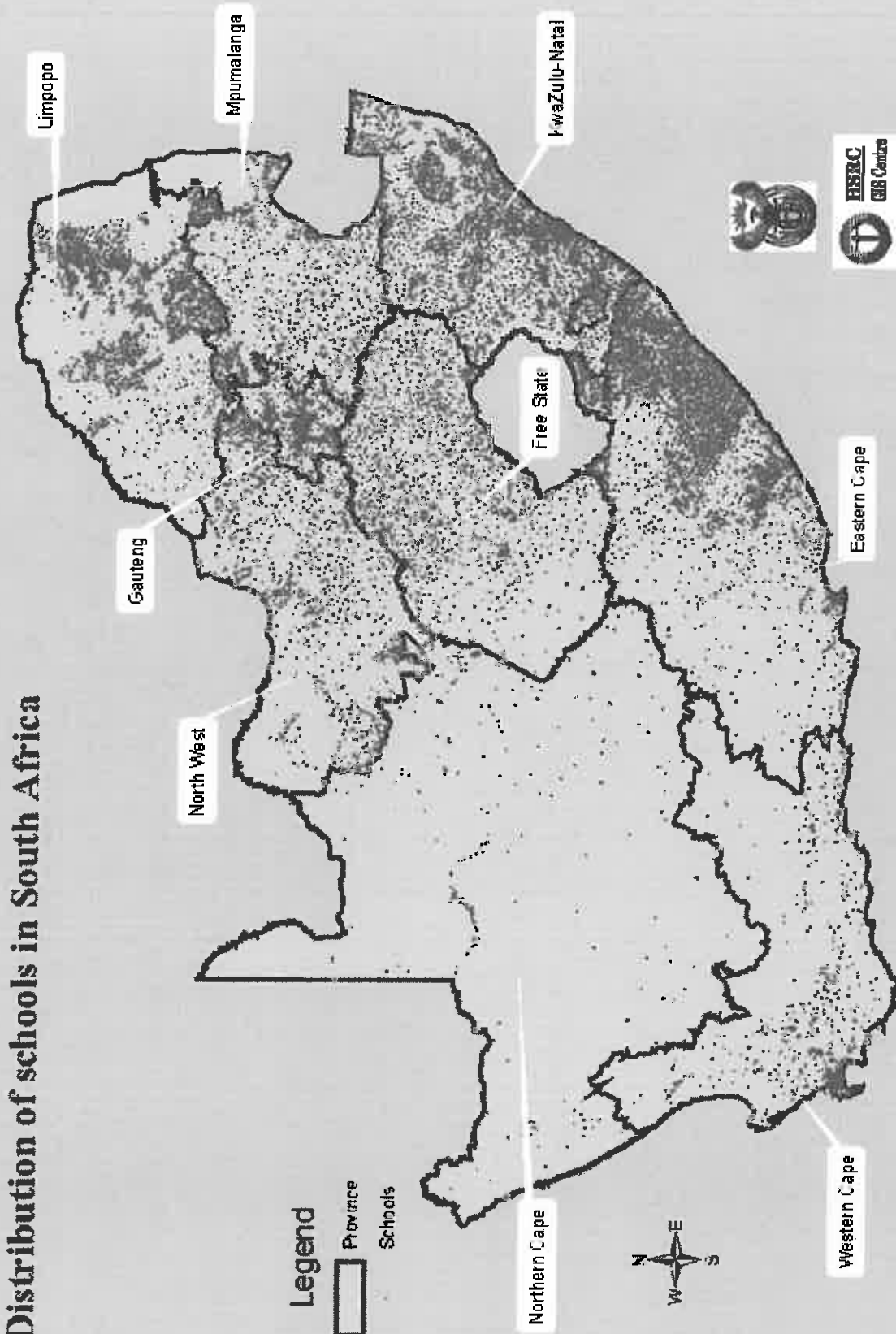
Labour Market

- Point location of labour centres

- Labour centre catchment areas

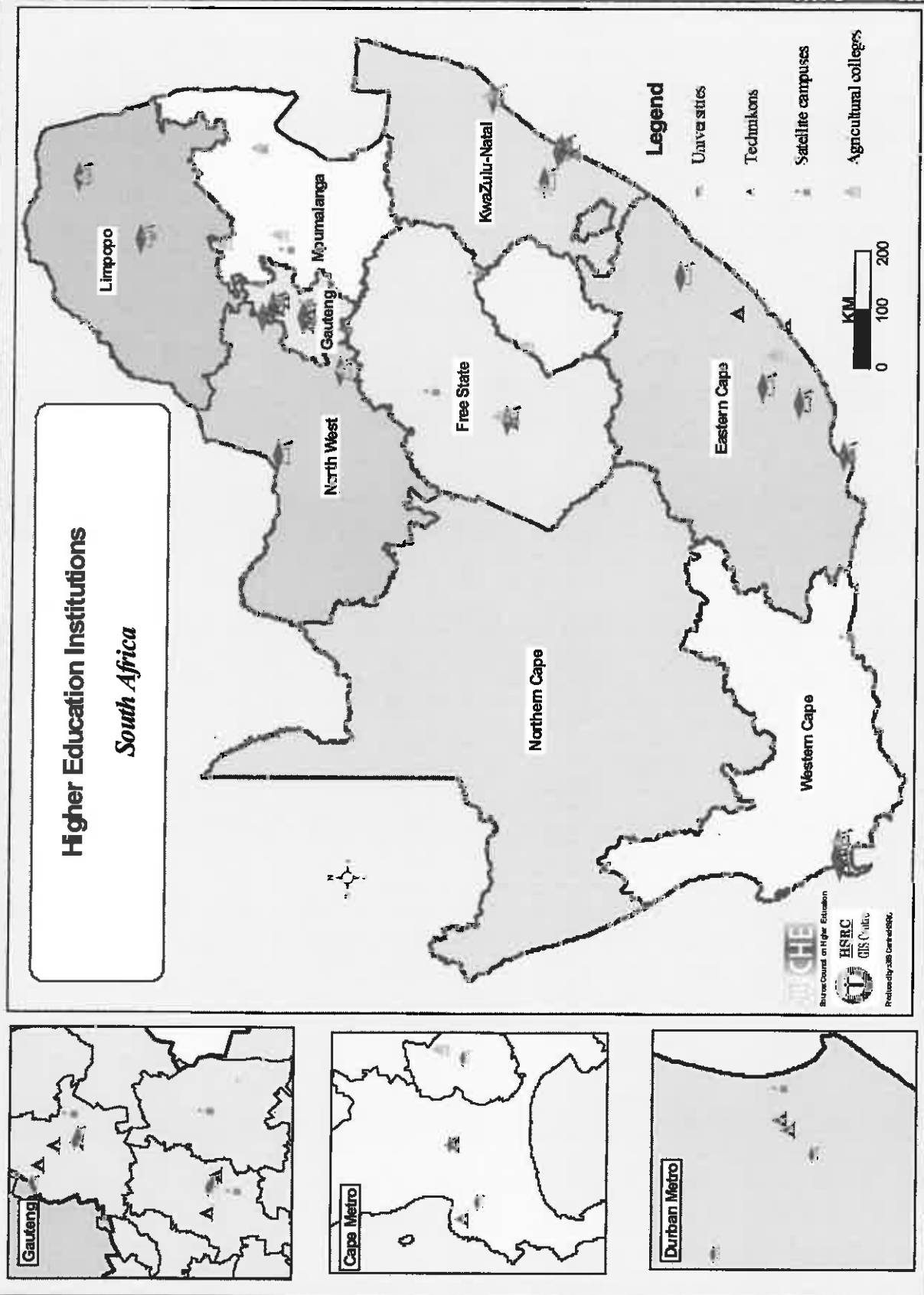


Distribution of schools in South Africa



Source: SRN 2003

Human Resource Development



Human Resource Development

Labour Market GIS

Objectives

Geolocate all labour centers, visiting points and satellite centres in South Africa;

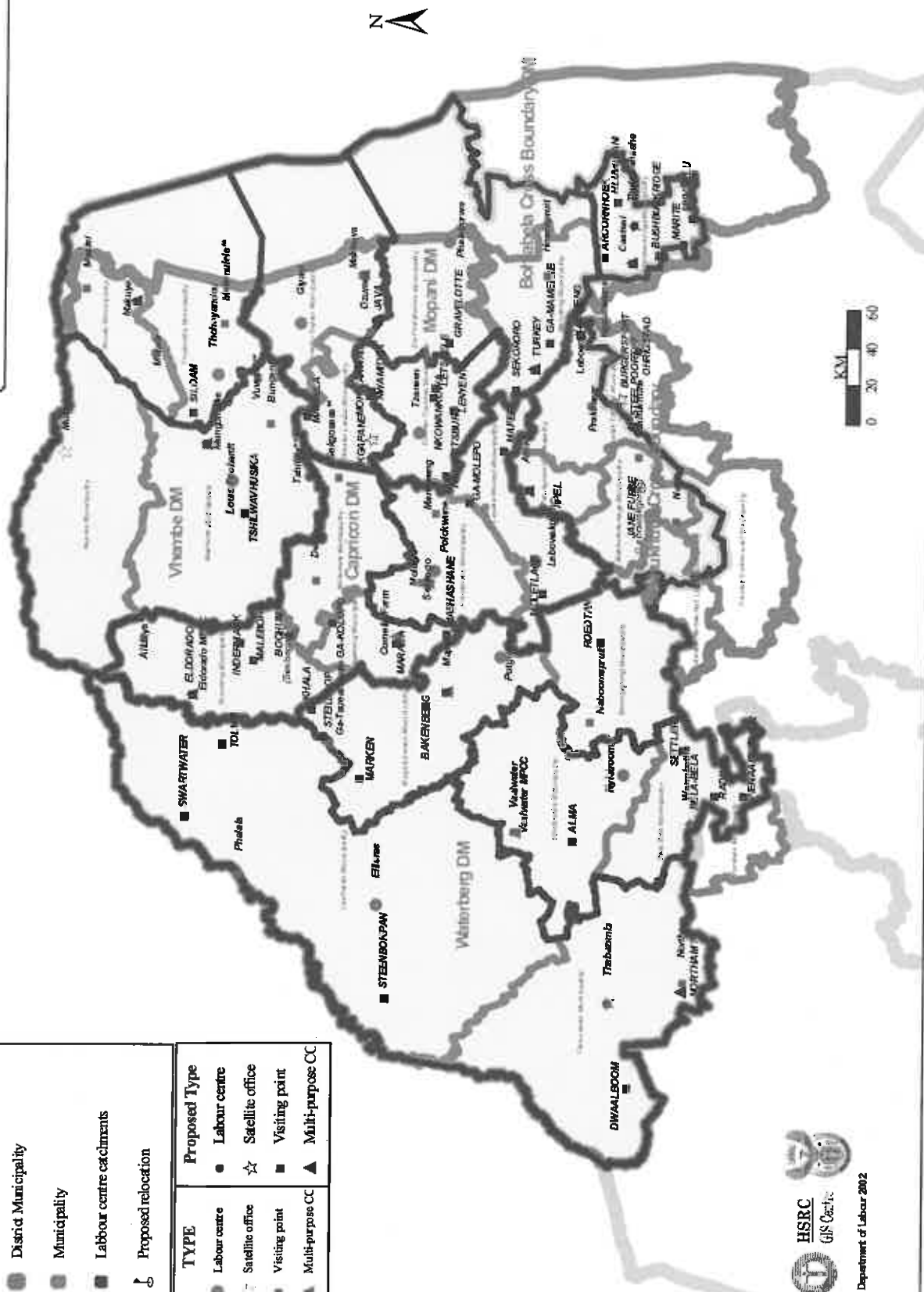
Create catchment areas for each labour centre

Integrate statistics collected at the labour centres and other data sets (e.g. demographics) into the GIS.



Labour centre boundaries Limpopo

Legend	
Provincial boundaries	
District Municipality	
Municipality	
Labour centre catchments	
Proposed relocation	
TYPE	Proposed Type
● Labour centre	● Labour centre
☆ Satellite office	☆ Satellite office
■ Visiting point	■ Visiting point
▲ Multi-purpose CC	▲ Multi-purpose CC



**Unemployed population
Eastern Cape**

Population

< 10000
10001 - 20000
20001 - 50000
50001 - 100000
> 100000

Legend

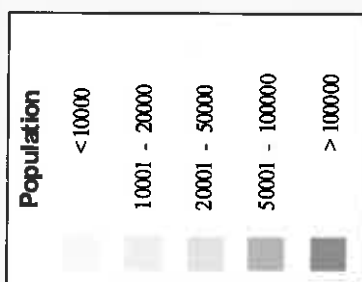
Type	Proposed type
Labour centre	Labour centre
Satellite office	Satellite office
Visiting point	Visiting point
Multi-purpose CC	Multi-purpose CC

Labour centre catchments

Proposed type

Labour centre
Satellite office
Visiting point
Multi-purpose CC

Statistics SA Census 1996



Statistics SA Census 1996

Legend

Type	Proposed type
Labour centre	● Labour centre
Satellite office	☆ Satellite office
Visiting point	■ Visiting point
Multi-purpose CC	▲ Multi-purpose CC



Conclusion

Why is GIS important for socio-economic planning?

- Allows information from different spatial levels to be overlaid and analysed
- Allows database and spatial information to be queried
- Allows database information to be aggregated or allocated from one spatial layer to another
- Allows modeling to occur
- Allows unrelated dataset to be combined
- Allows the creation of new datasets



The End

I Thank you!!

