

Review of the Energy Demand Mapping for EGI

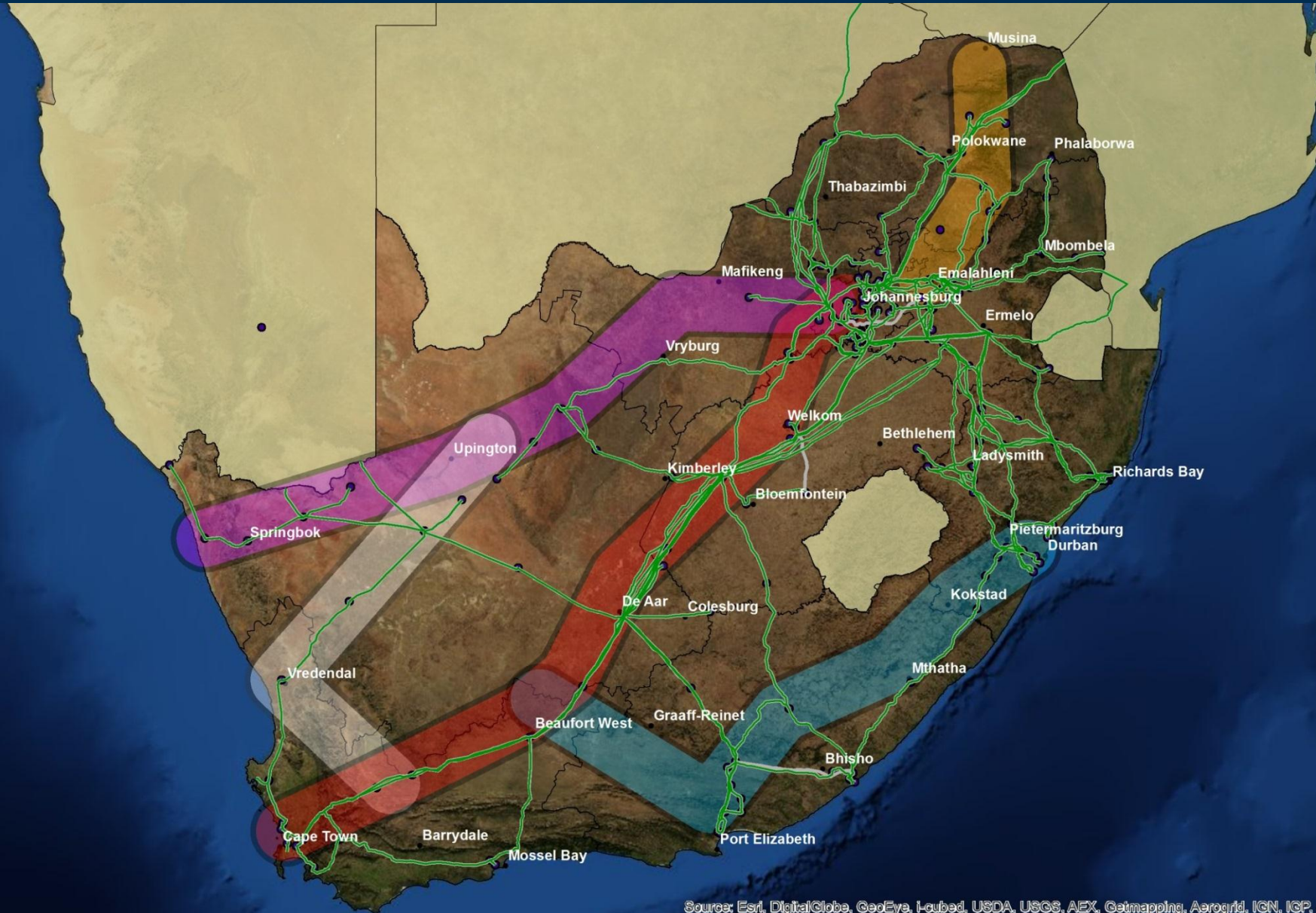
Provincial consultation: Gauteng and Mpumalanga

4 November – 28 November 2014

Rationale for the demand mapping exercise

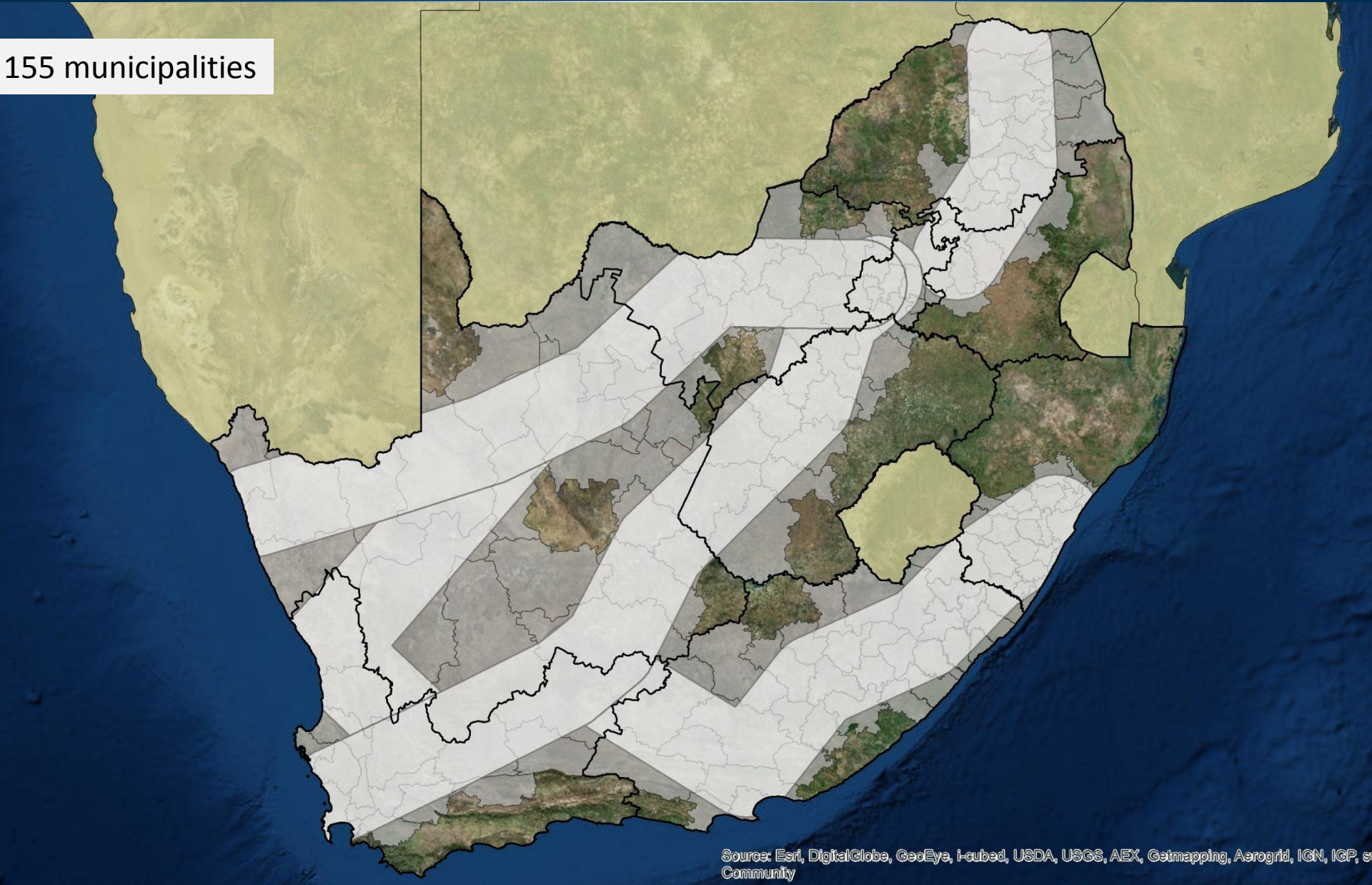
- To identify future development plans and energy requirements by intensive energy users
- Strengthen and highlight the location of key proposed development areas
- To identify key economic development priorities across local, provincial and national scales
- To conduct an extensive review of municipal (local & district) and provincial planning documents (SDFs and IDPs)

Current footprint and study area



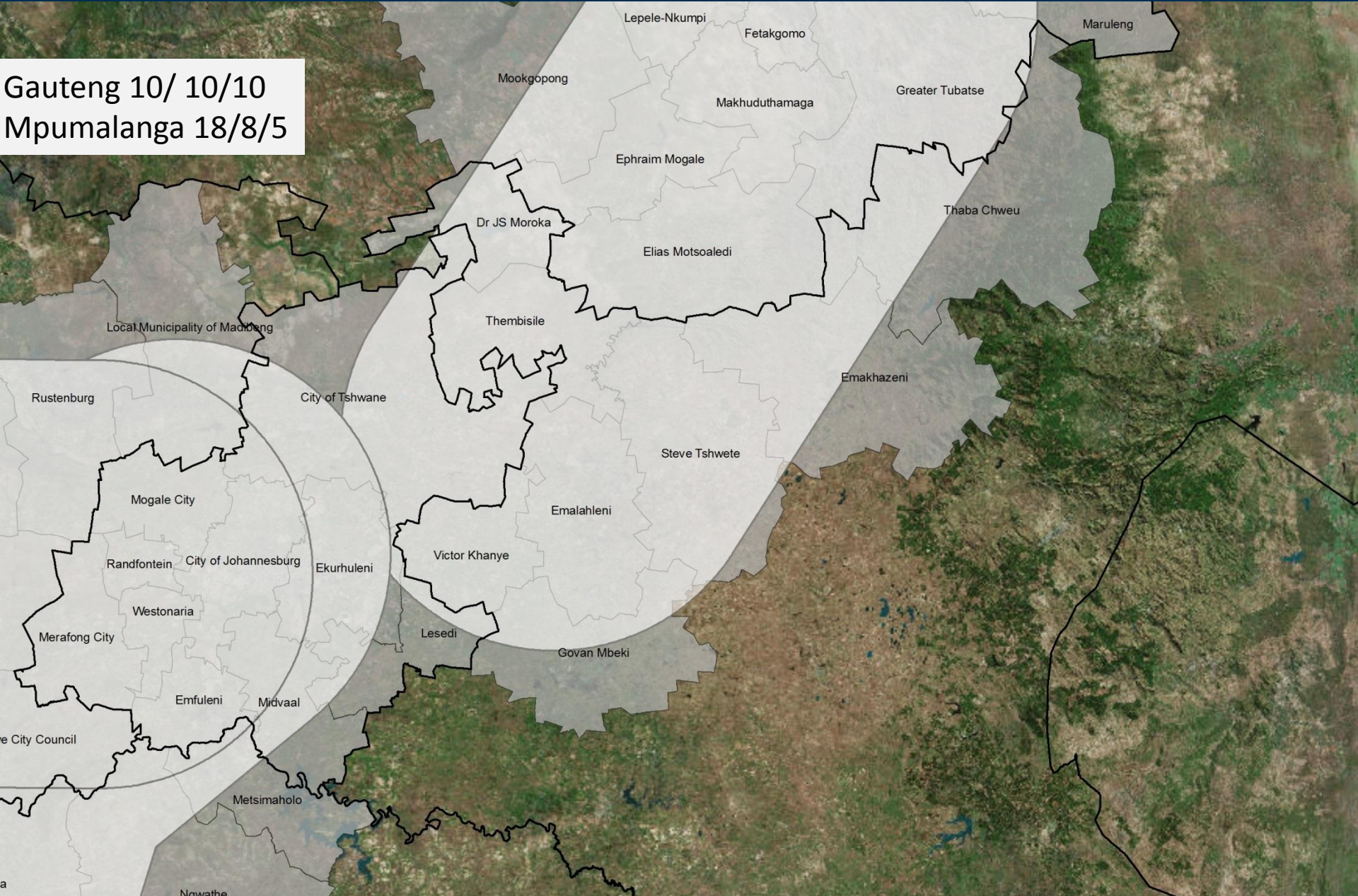
Municipalities that overlap with the corridor

155 municipalities



Provincial Municipalities

Gauteng 10/ 10/10
Mpumalanga 18/8/5



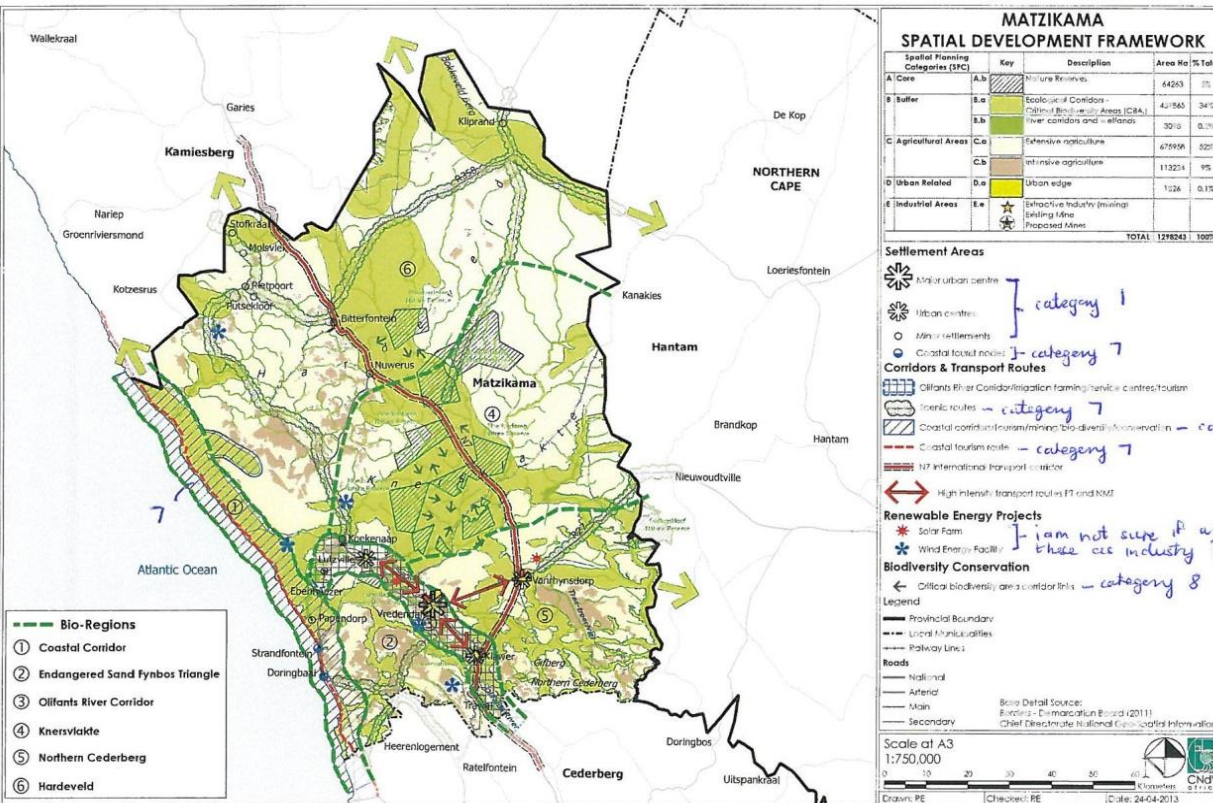
Demand mapping SDF categories

Number	Planning category	Example in SDFs	Push/Pull
2	Industrial expansion	Industrial areas-within urban edge	Pull
3	Strategic economic zones and industrial development zones	Areas outside the urban edge demarcated for special/strategic economic developments	Pull
5	Priority mining areas	Existing mining activity, proposed/potential mining activity	Pull

SDF Mapping process

- Latest SDFs sourced where available
- District and Provincial SDFs or IDPs also sourced

CATEGORY: 1, 2, 3, 4, 7, 8: URBAN, INDUSTRIAL EXPANSION, INDUSTRY, TRANSPORT, AGRICULTURE, TOURISM, NATURAL LANDSCAPES.

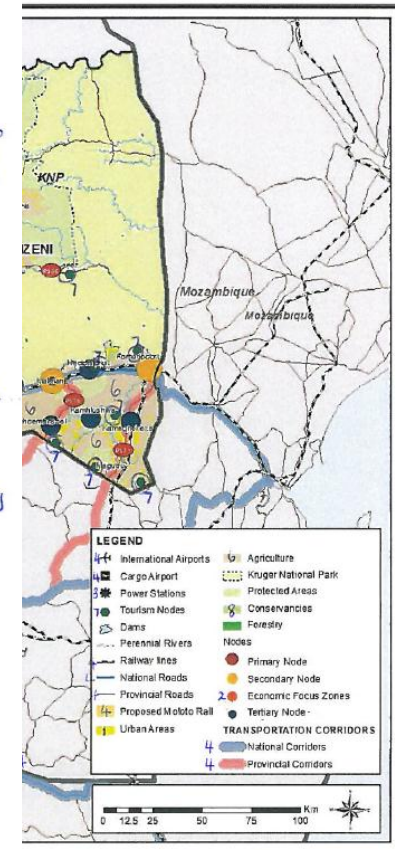


category 6
category 1
category 5

category 1
category 7

category 7
category 7 + cat 5

I am not sure if we are mapping these are industry?



is not labelled on map as it would make

Figure 5.3.1.1 Matzikama Municipality: Spatial Development Framework

CNDV africa (Pty) Ltd. Apologies for the map. This is the only one available that has loaded all relevant info on this one map.

This is the map displayed in the final version of the doc. I have included more separate maps extracted from the

draft version of the doc (Jan 2013) so they shouldn't be so different. Please see the other maps for mining + tourism info. These are clearer.

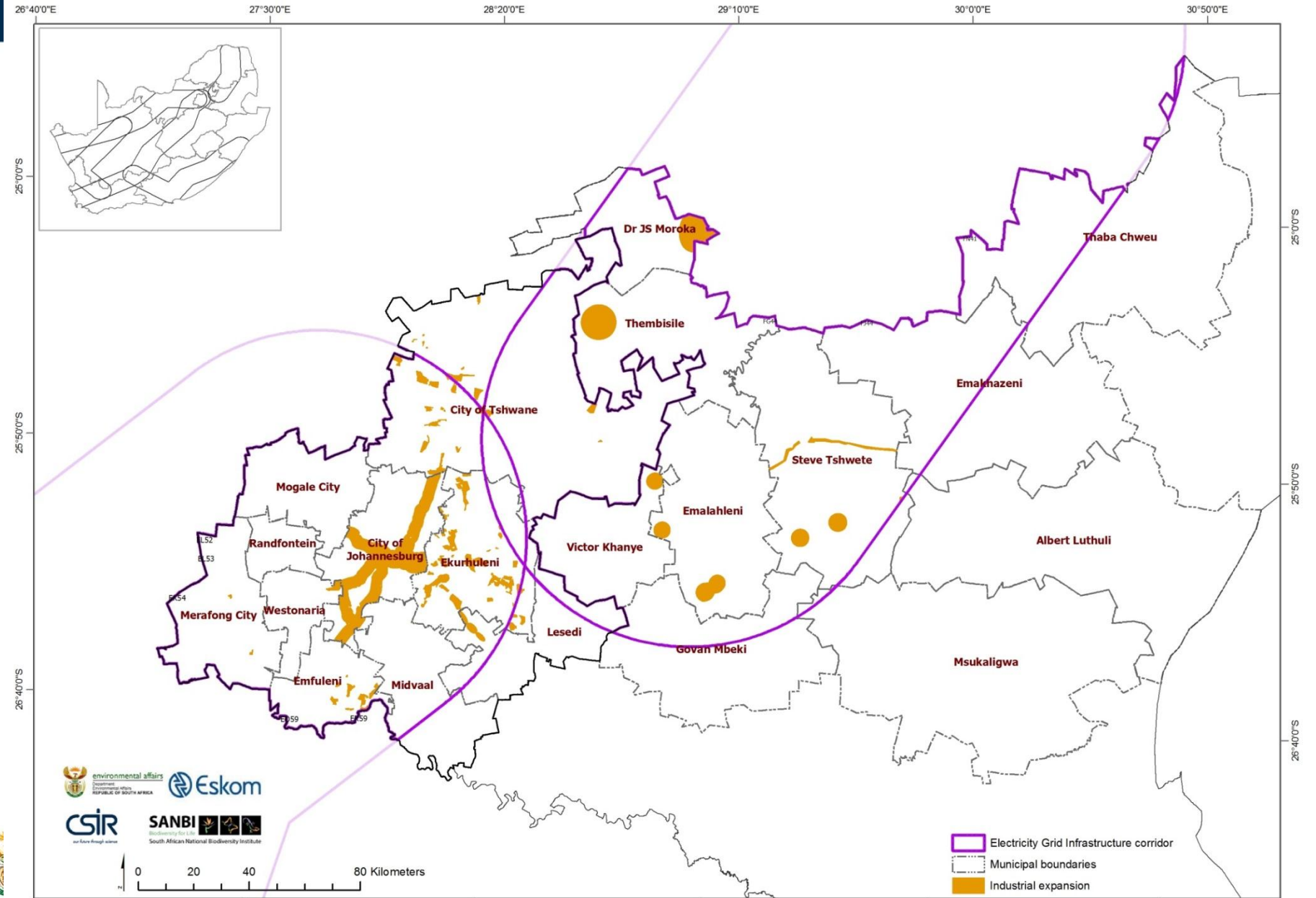
MATZIKAMA MUNICIPAL SDF (12.2188) draft SPATIAL DEVELOPMENT FRAMEWORK 18 April 2013

Metadata sheet

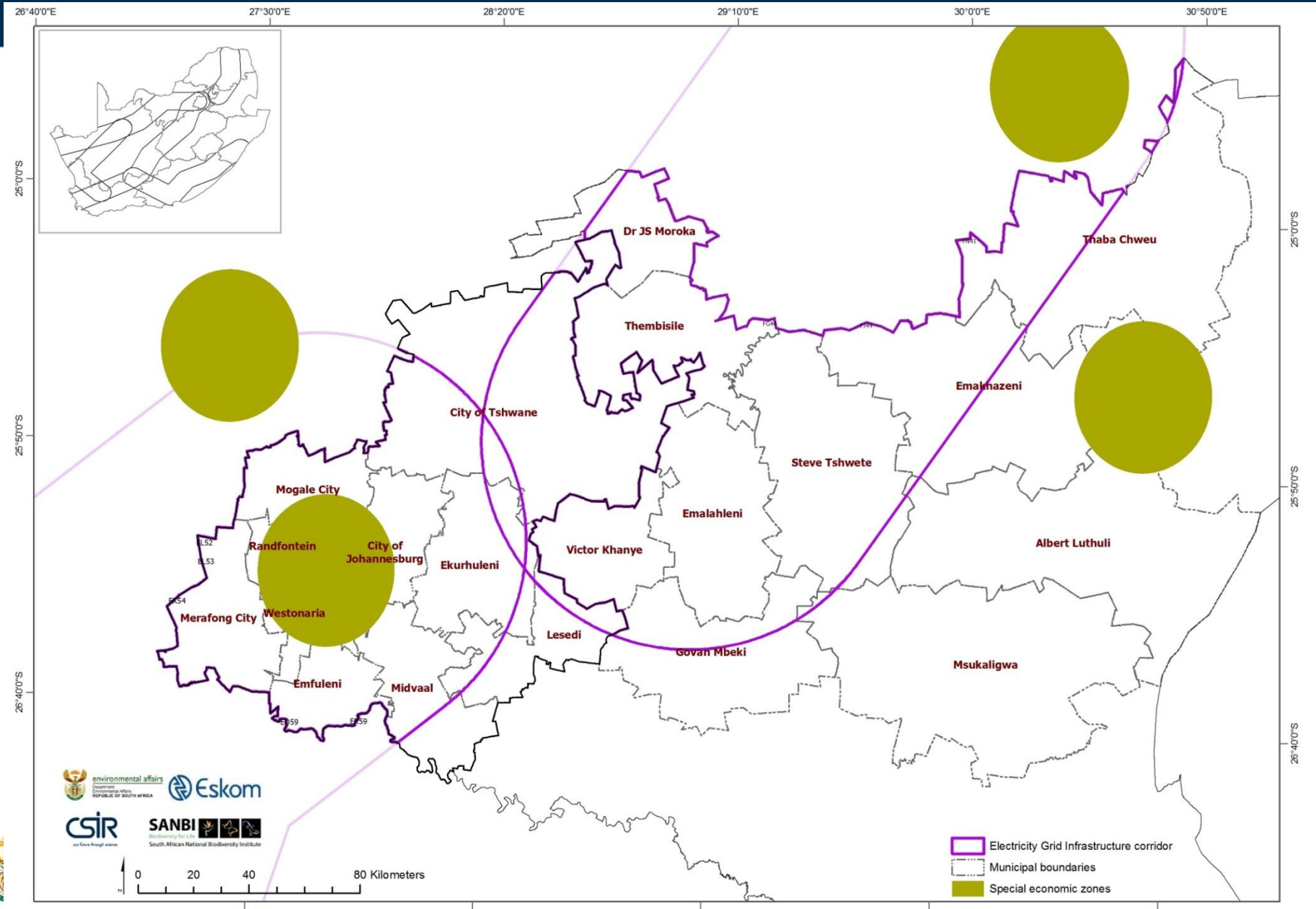
Opportunities Mapping Document-Combined 9 October - Microsoft Excel

Province	Metropolitan M	District Municipality	Local Municipality	Primary Review Document	Publication Date	Source	Secondary Review Document	Publication Date	Source
Western Cape	N/A	Cape Winelands District Municipality	Stellenbosch	Stellenbosch SDF	2010	http://www.stellenbosch.gov.za/about-us/documents/planning-and-building-	None	N/A	N/A
Western Cape	N/A	West Coast District Municipality	Swartland	Swartland SDF 2012	2012	http://www.swartland.org.za/pages/english/documents/idp-perf-management/swartland-spatial-development-	None	N/A	N/A
Western Cape	N/A	Overberg District Municipality	Theewaterskloof	Theewaterskloof SDF	2012	CONTACT MUNICIPALITY 028 2143300 083 4564064 Elizabeth de Kock; Thobeka. received via email from Thobeka Twani <ThobekaTw@twk.org.za>	Overberg District SDF	2013	http://www.odm.org.za/?page_id=85
Western Cape	N/A	Cape Winelands District Municipality	Witzenberg	Witzenberg SDF	2012	http://www.witzenberg.gov.za/publications/spatial-development-framework/	None	N/A	N/A
mpumalanga	N/A	Nkangala District Municipality	Dr JS Moroka	Dr JS Moroka Local Municipality Final Reviewed Integrated Development Plan 2014/2015	2013	http://www.moroka.gov.za/fileUpload/Final%20Reviewed%20IDP%202014-2015.pdf	None	N/A	N/A
mpumalanga	N/A	Nkangala District Municipality	Emakhazeni	Emakhazeni Local Municipality SDF Sept 2010	2010	http://www.emakhazeni.gov.za/Emakhazeni_SDF_Review_Sept_2010.pdf	None	N/A	N/A
mpumalanga	N/A	Nkangala District Municipality	Emalahleni	Emalahleni Local Municipality 2014/2015 DRAFT IDP	2013	http://www.emalahleni.gov.za/documents.html	None	N/A	N/A
mpumalanga	N/A	Gert Sibande District Municipality	Govan Mbeki	Govan Mbeki SDF 2014	2014	http://196.213.194.141/files/sdf2034.pdf	Govan Mbeki IDP	2014	http://www.govanmbeki.gov.za/files
mpumalanga	N/A	Nkangala District Municipality	Steve Tshwete	Steve Tshwete SDF 2010	2010	http://www.stevetshwetelm.gov.za/SDF/SDF_2010_DRAFT.pdf	None	N/A	N/A
mpumalanga	N/A	Ehlanzeni District Municipality	Thaba Chweu	Thaba Chweu SDF	2007/2008	Received via email from Innocent Sekgobela (townplanner@thabachweumun.gov.za; 013 235 7388). She indicates that the document is still under review.	None	N/A	N/A
mpumalanga	N/A	Nkangala District Municipality	Thembisile Hani	Thembisile Hani Local Municipality Final IDP 2011-2016	2013	http://www.thembisilehanilm.gov.za/thlm_idp_2013_2014.pdf	None	N/A	N/A
mpumalanga	N/A	Nkangala District Municipality	Victor Khanye	Victor Khanye 2011-2016 IDP final 2014-2015 review	2013	http://www.victorkhanyelm.gov.za/index.php/legislation-doc/idp	None	N/A	N/A
Free State	N/A	Xhariep	Kopanong	SDF Xhariep DM	2012	http://www.westerncape.gov.za/text/2013/April/spatial-development-framework-xhariep-district-	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf
Free State	N/A	Xhariep	Letsemeng	SDF Xhariep DM	2012	http://www.westerncape.gov.za/text/2013/April/spatial-development-framework-xhariep-district-	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf
Free State	Mangaung	N/A	N/A	Mangaung SDF	2013	received via email from Hennie Stander, GIS Administrator for the municipality (Tel: 051 405 8416; HENNIE.STANDER@mangaung.co.za)	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf
Free State	N/A	Lejweleputswa	Masilonyana	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf	None	N/A	N/A
Free State	N/A	Lejweleputswa	Matjhabeng	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf	None	N/A	N/A
Free State	N/A	Fezile Dabi	Moqhaka	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf	None	N/A	N/A
Free State	N/A	Lejweleputswa	Nala	Free State Province SDF	2014	http://www.freestatepsdf.co.za/wp-content/uploads/2014/FSPSDF_Final_7March2014.pdf	None	N/A	N/A

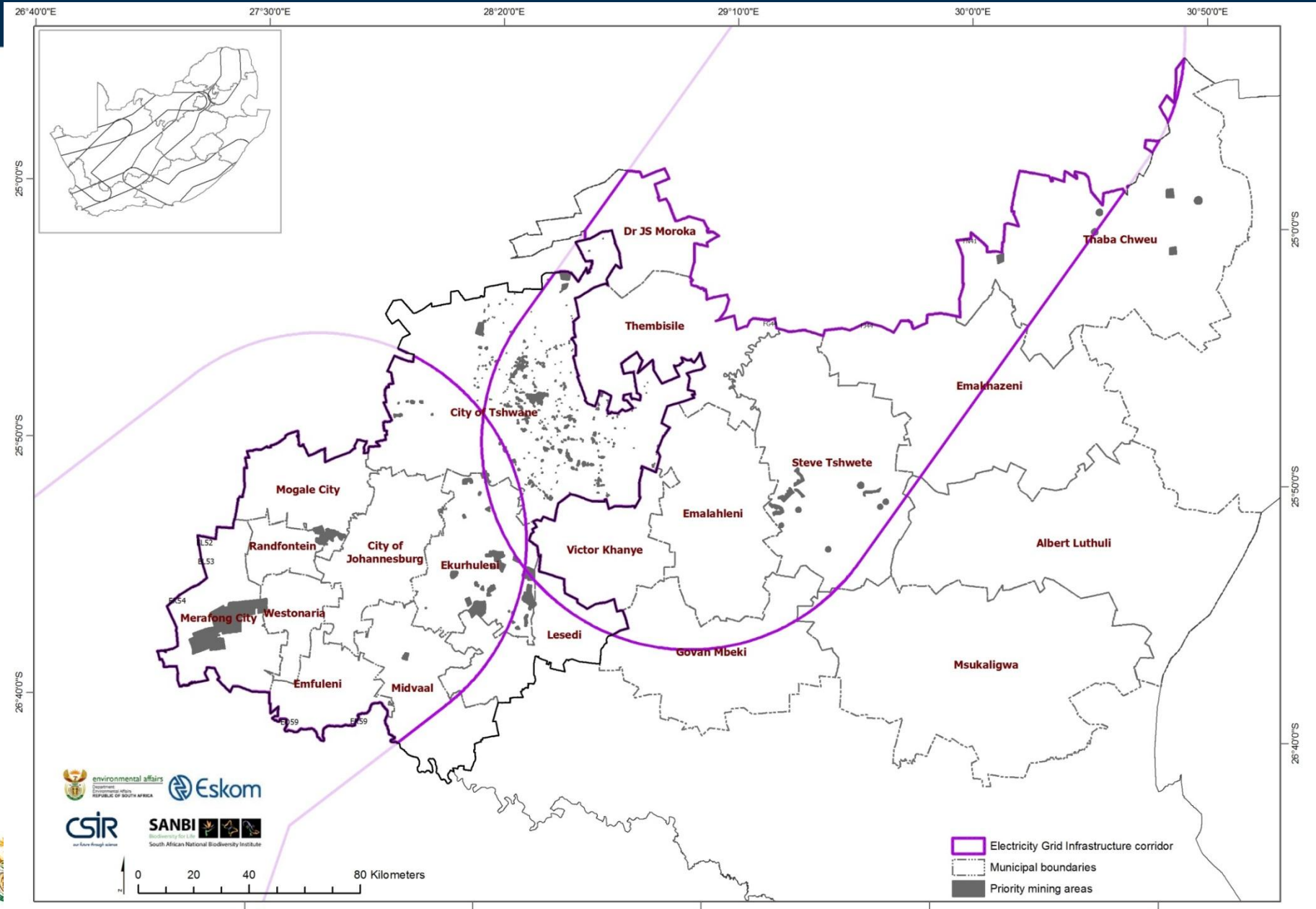
Industrial expansion



SEZs and IDZ's

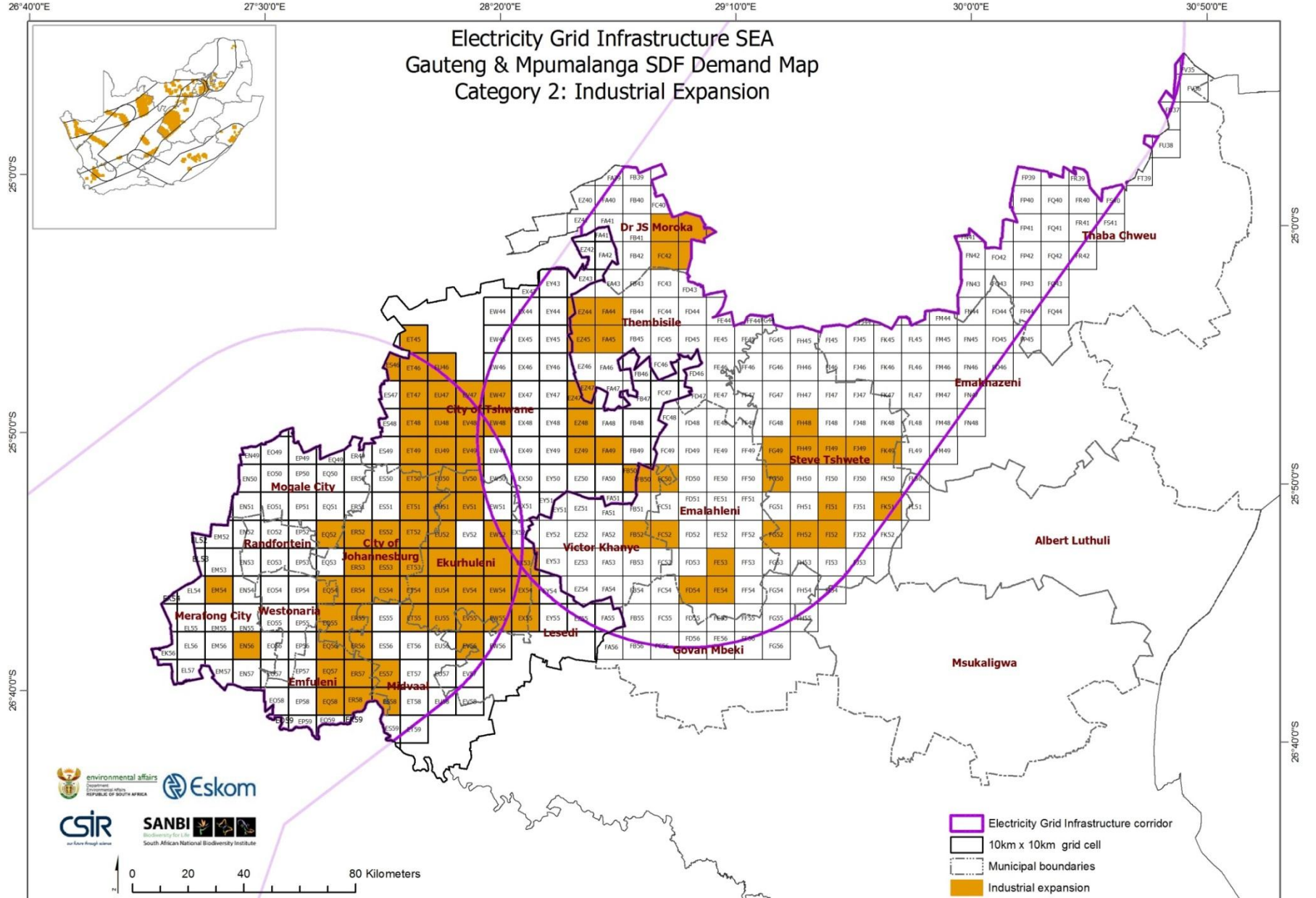






Priority mining areas



Conversion to grid: Industrial expansion

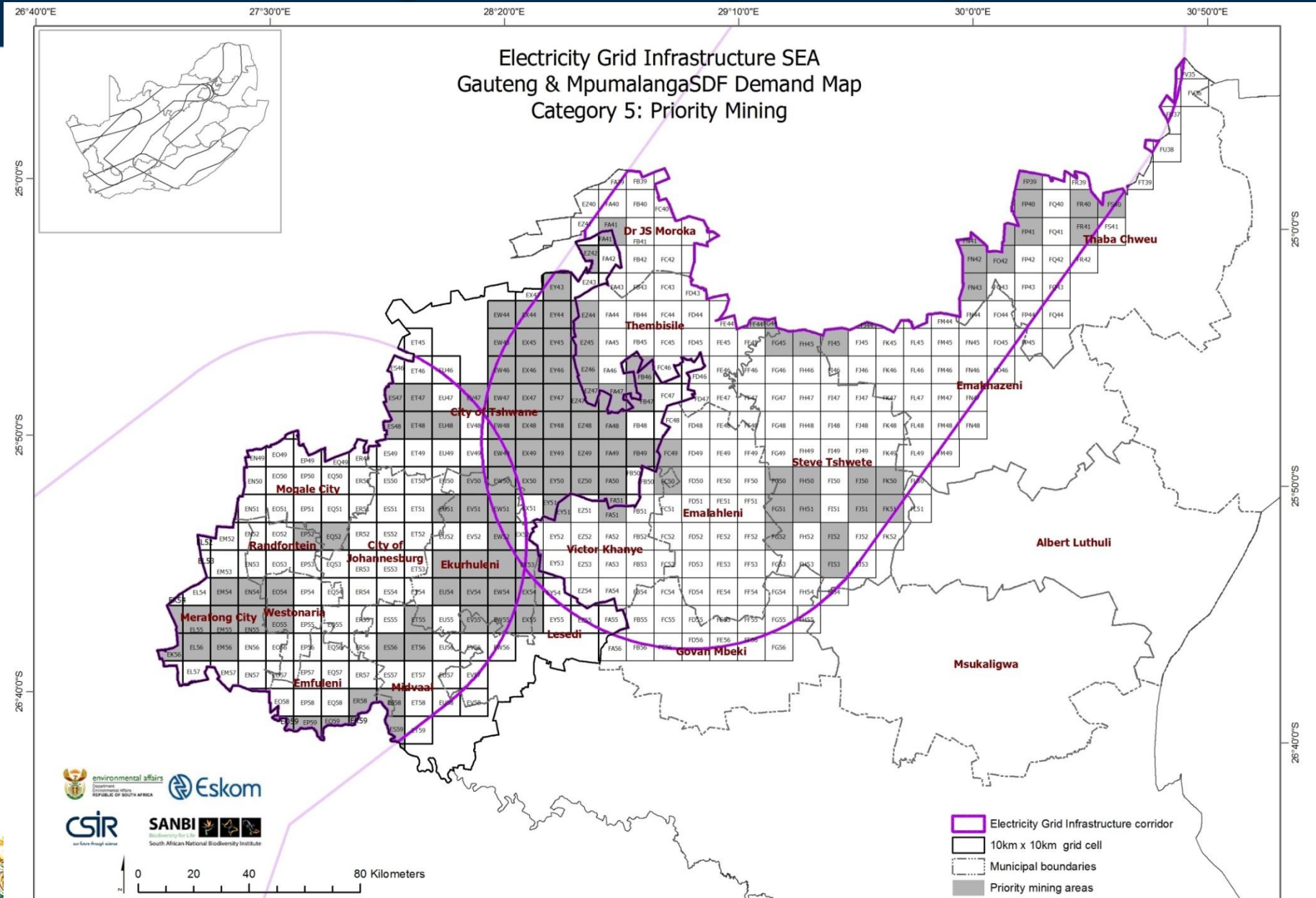
Electricity Grid Infrastructure SEA
 Gauteng & Mpumalanga SDF Demand Map
 Category 2: Industrial Expansion



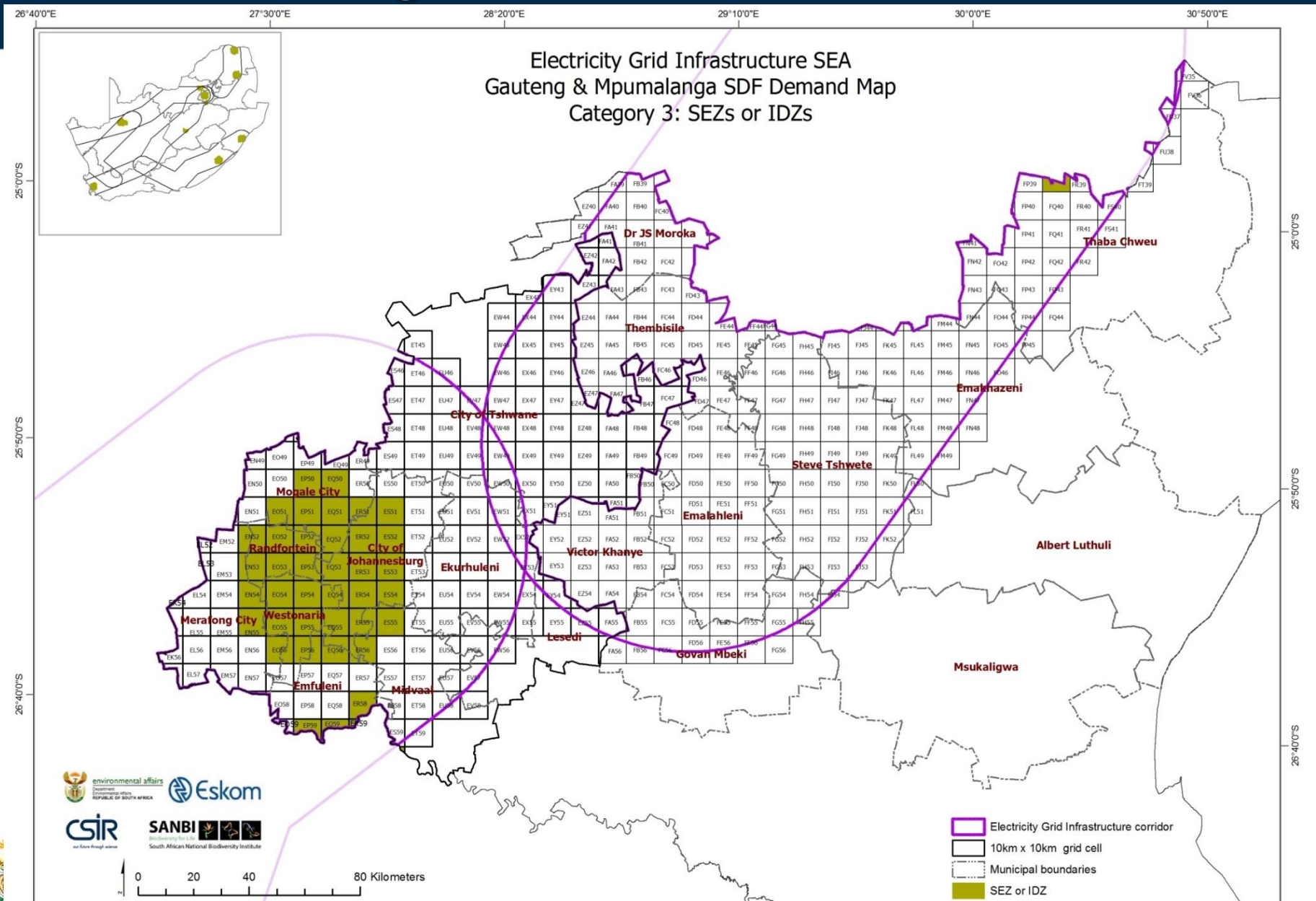
-  Electricity Grid Infrastructure corridor
-  10km x 10km grid cell
-  Municipal boundaries
-  Industrial expansion



Conversion to grid: Priority mining

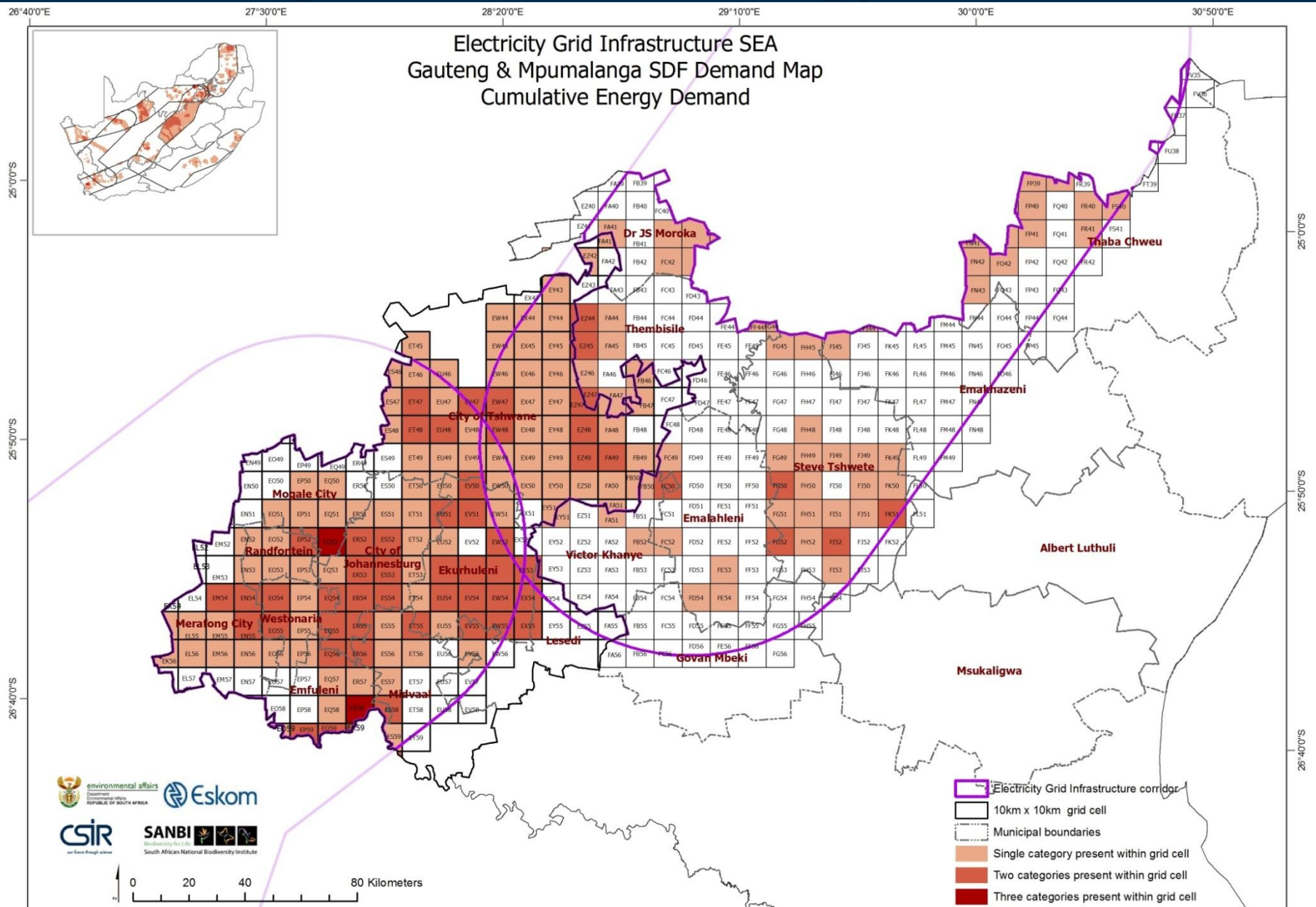


Conversion to grid: SEZs or IDZs



Combined grids for Bulk Energy Users

Electricity Grid Infrastructure SEA
Gauteng & Mpumalanga SDF Demand Map
Cumulative Energy Demand

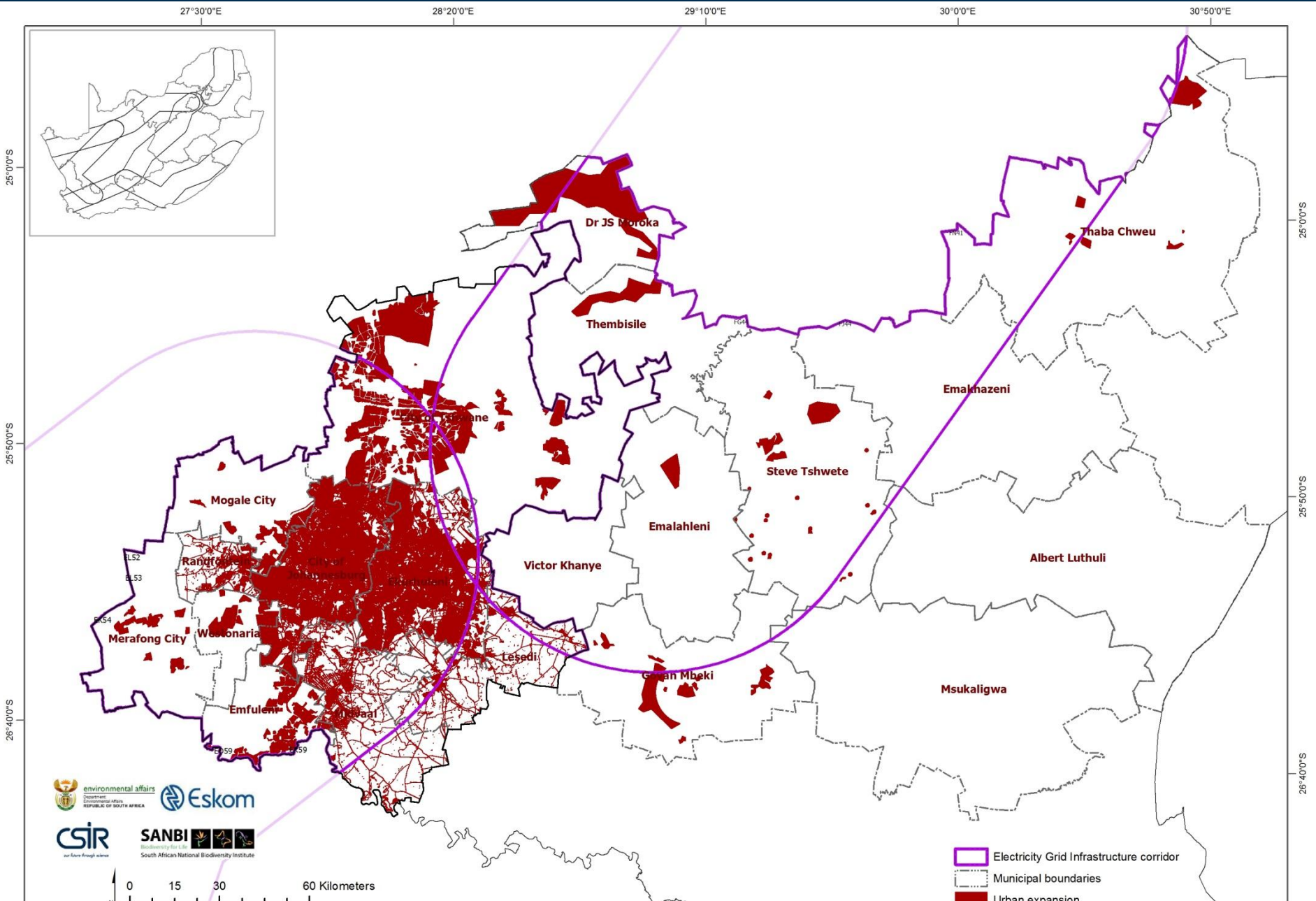


- Electricity Grid Infrastructure corridor
- 10km x 10km grid cell
- Municipal boundaries
- Single category present within grid cell
- Two categories present within grid cell
- Three categories present within grid cell

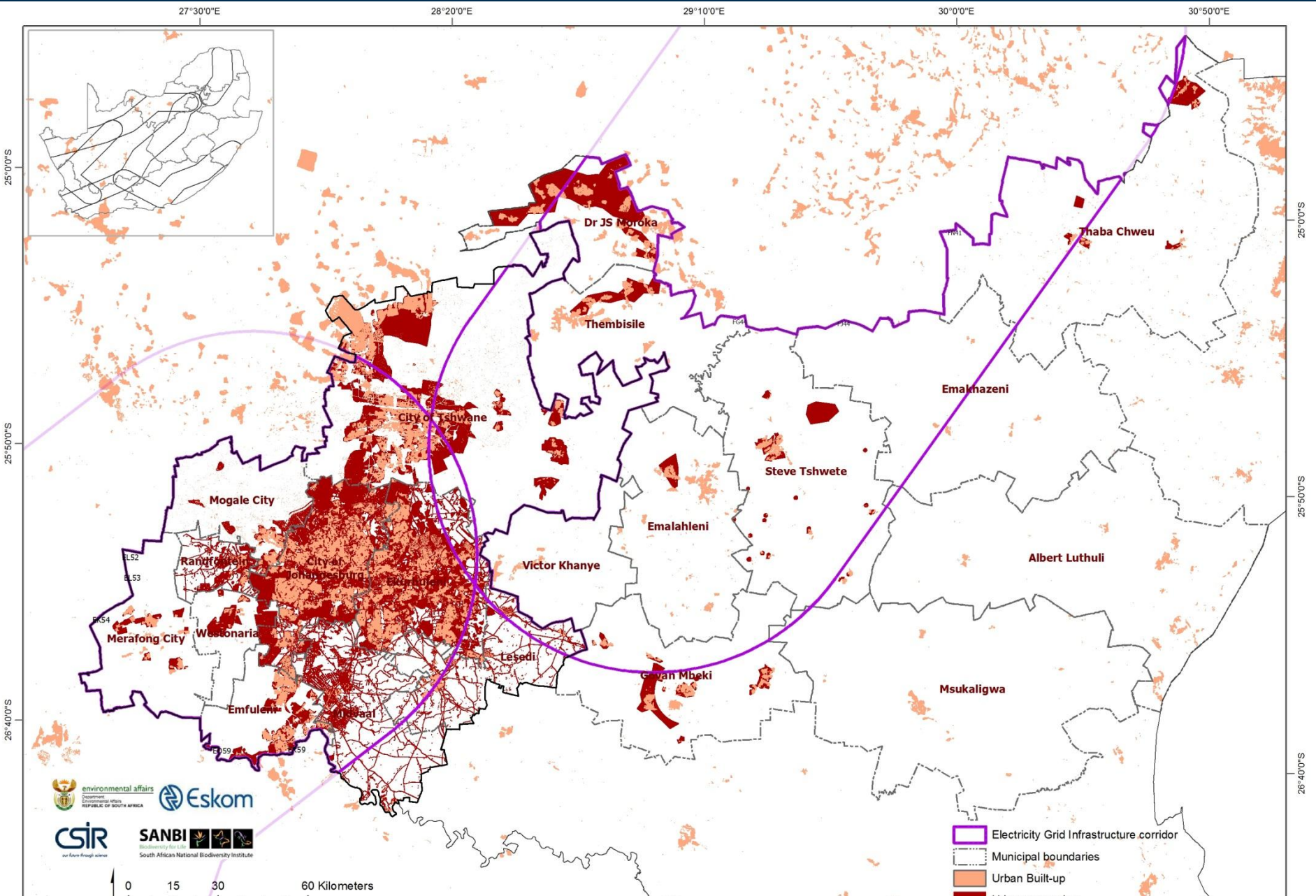
Additional Data Collected

No.	Planning category	Example in SDFs	Push/Pull
1	Urban expansion	New housing development, new shopping areas, new markets, new suburbs, existing/proposed mixed use areas	Push
2	Industrial expansion	Light industrial areas, heavy industrial areas- within urban edge	Pull
3	Industrial zone establishment	Areas outside the urban edge demarcated for special/strategic economic developments	Pull
4	Planned transportation routes	Proposed linkages; roads, taxi/train/bus stations; activity corridors	Push
5	Priority mining areas	Existing mining activity, proposed/potential mining activity	Pull
6	Priority agriculture areas	High potential agricultural areas; intensive/extensive agricultural areas; existing/proposed agricultural nodes;	Pull
7	Priority tourism nodes & landscapes	Existing/proposed game farms; conservancies; scenic routes, heritage areas; botanical gardens	Push
8	Priority natural areas & open spaces	Municipal/Urban Open Space; Conservation Area; Parks, Recreation; CBA; ESA rivers; wetlands	Push/pull

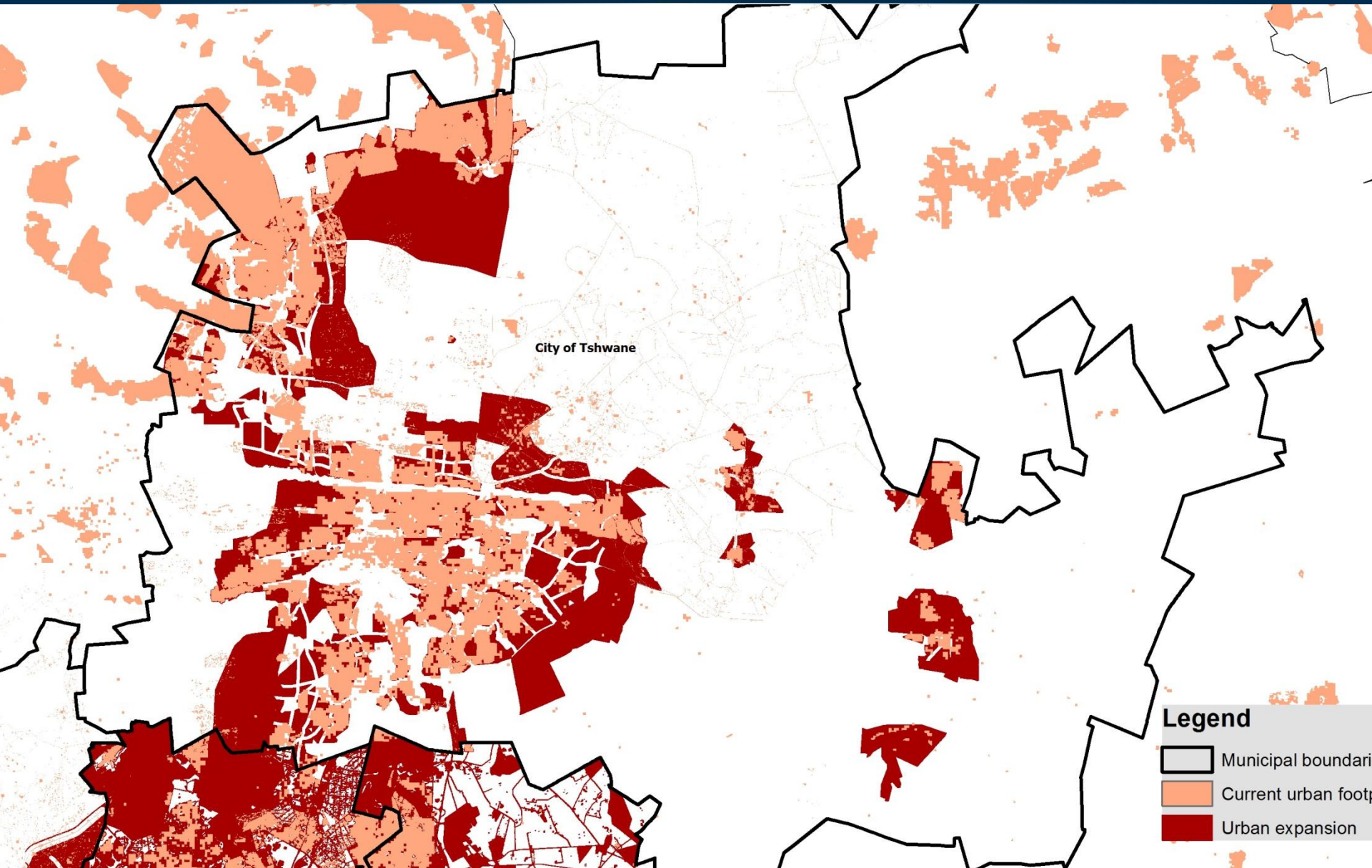
Urban expansion



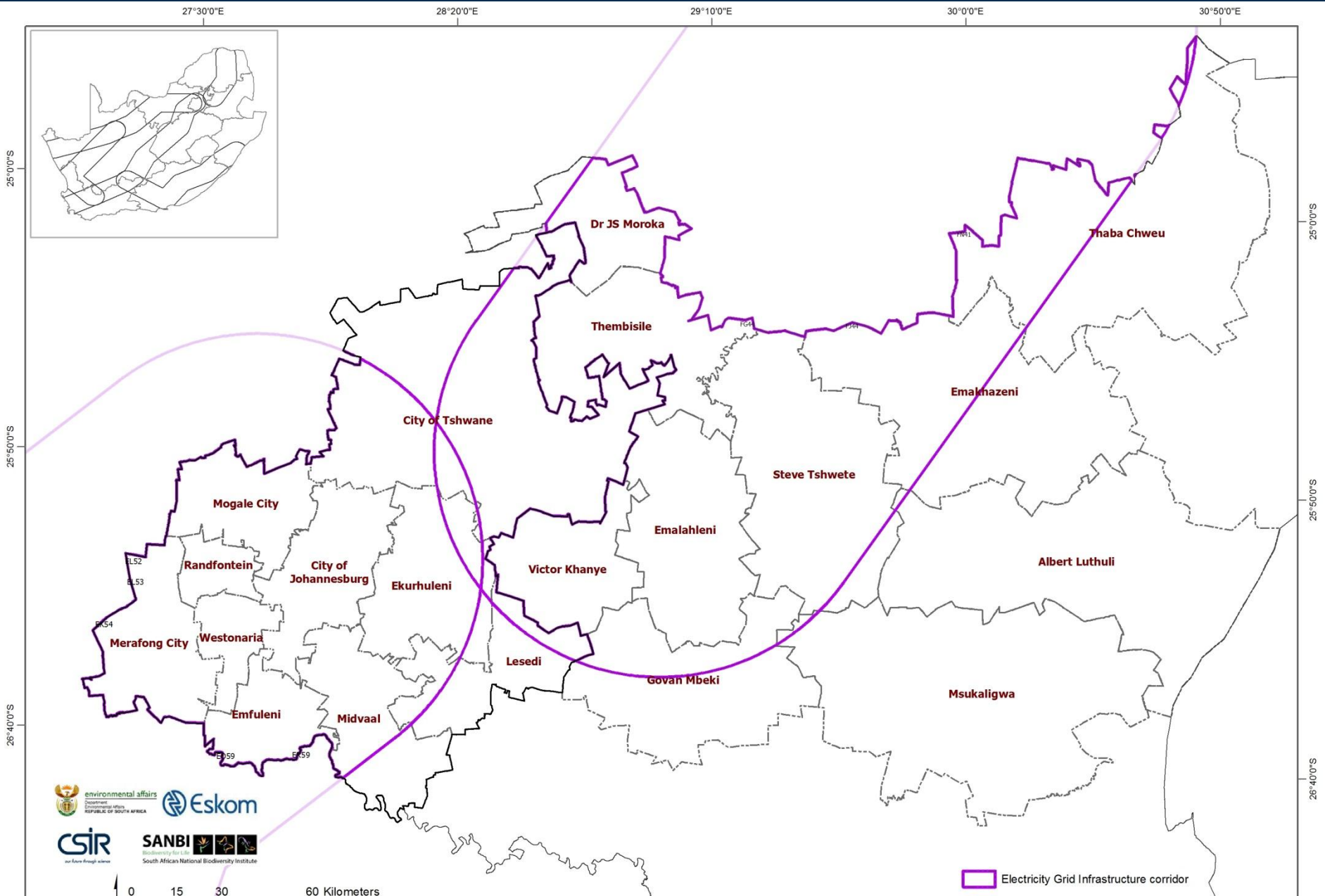
Existing Urban areas and Urban expansion



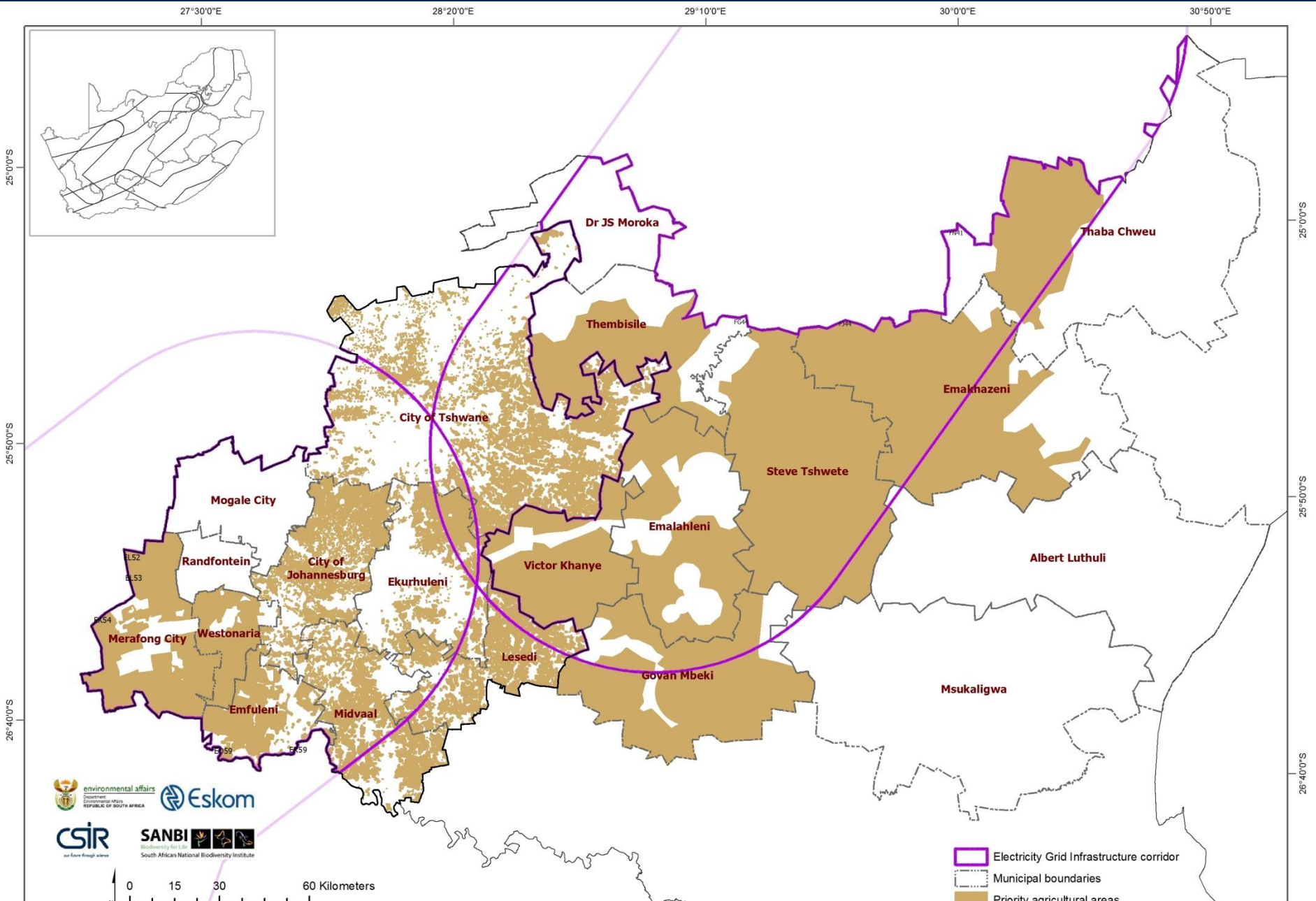
SDF info use in constraints mapping



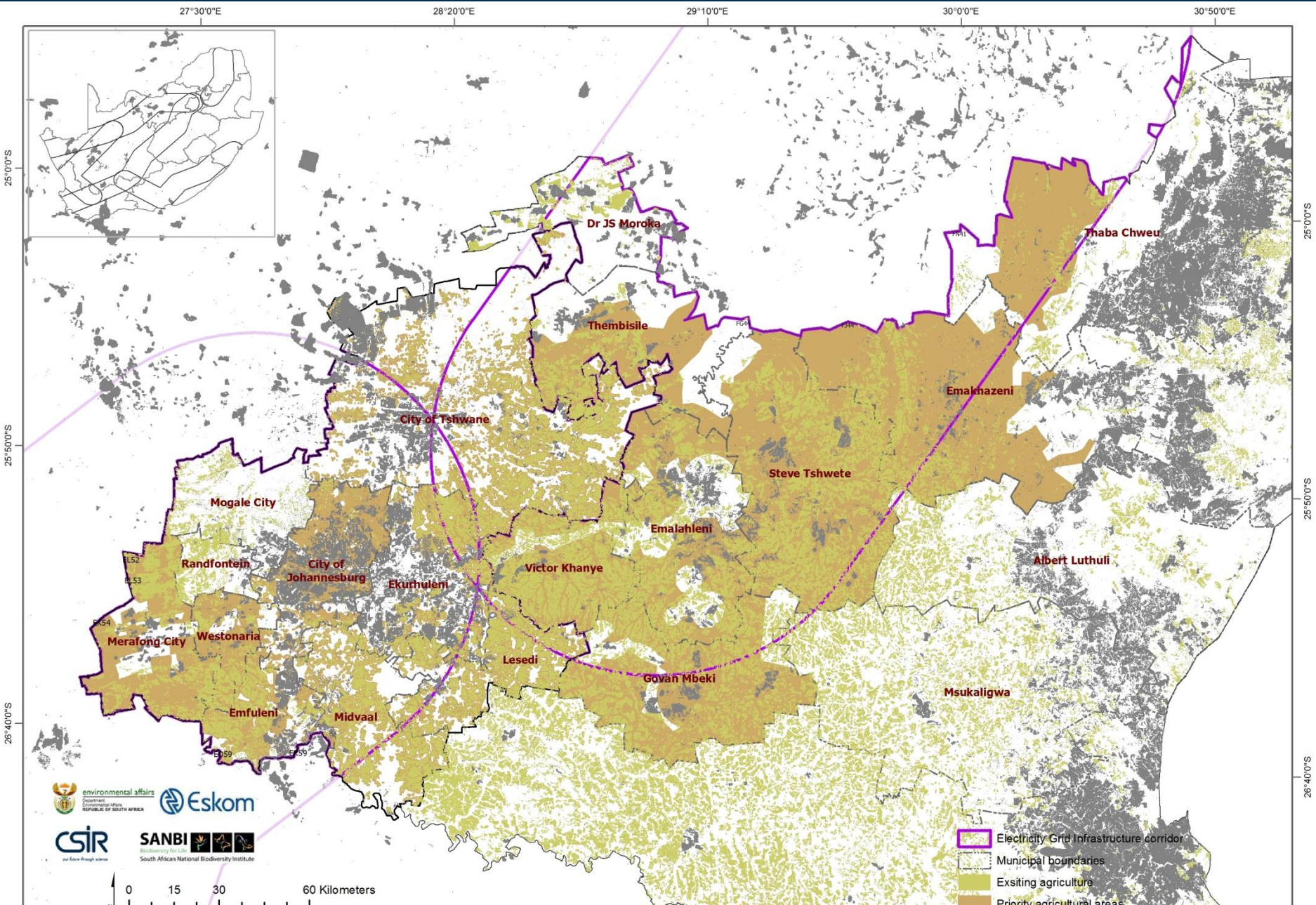
Planned transportation routes



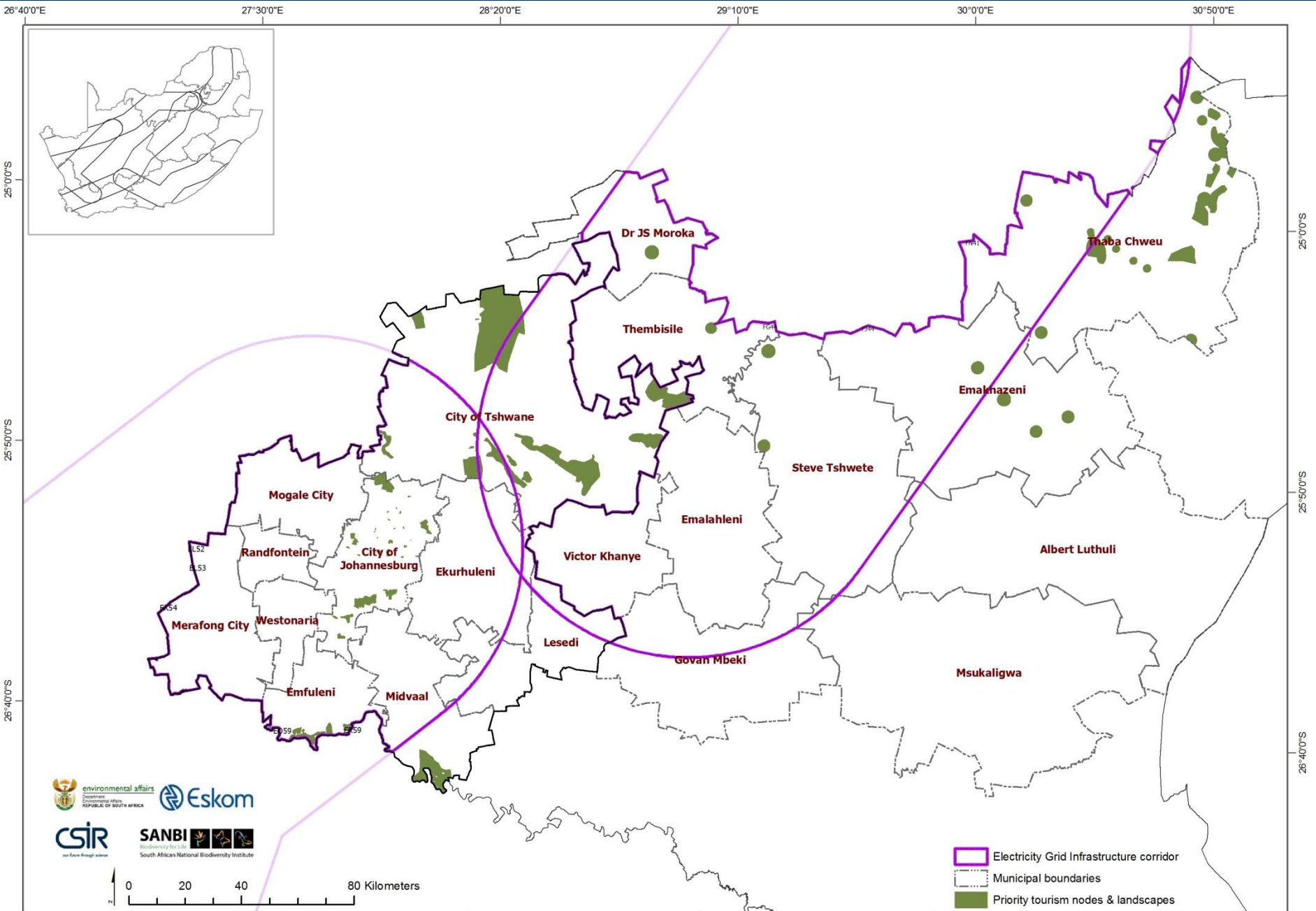
Priority agriculture areas



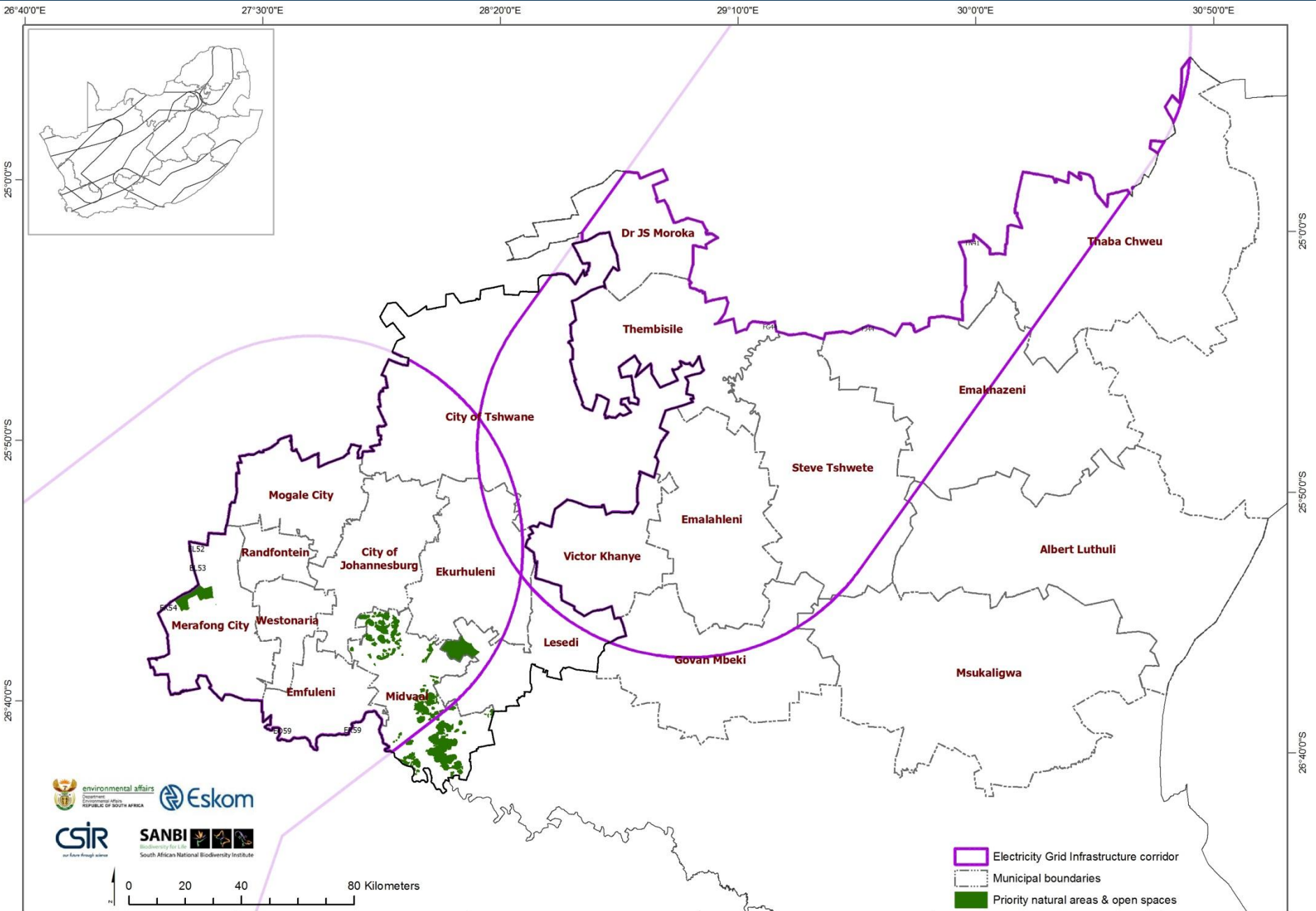
Available Priority Agricultural Areas



Priority tourism nodes & landscapes



Priority natural areas & open spaces



Conclusions and way forward

The information we were able to extract was useful for refining future demand

Ultimate use depends on feedback gathered during the consultation for refinement of the data

Questions and Discussion

