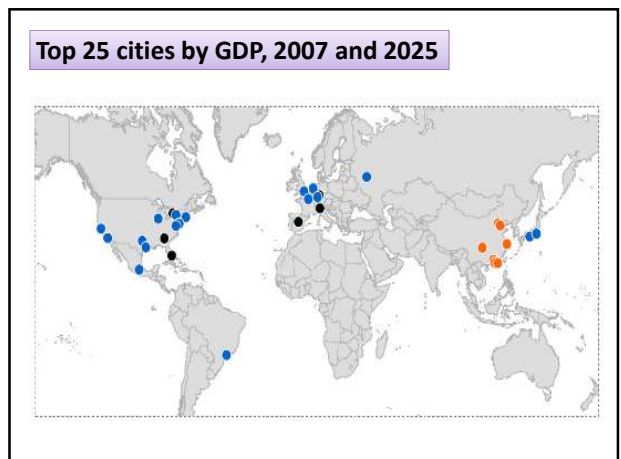
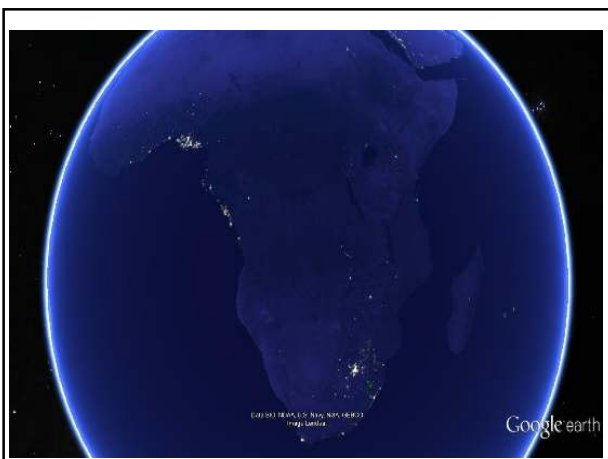


# The KZN Transport/Logistics Economy

**Dr. Clive Coetzee**  
**General Manager: Infrastructure**  
**Management and Economic Services**  
**KZN Provincial Treasury**

# MEGA TRENDS





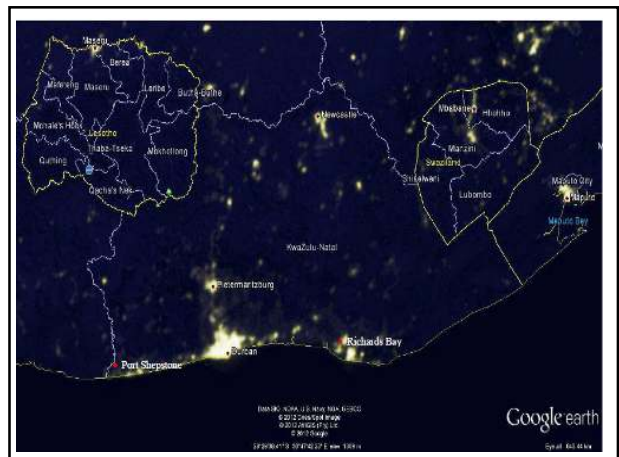
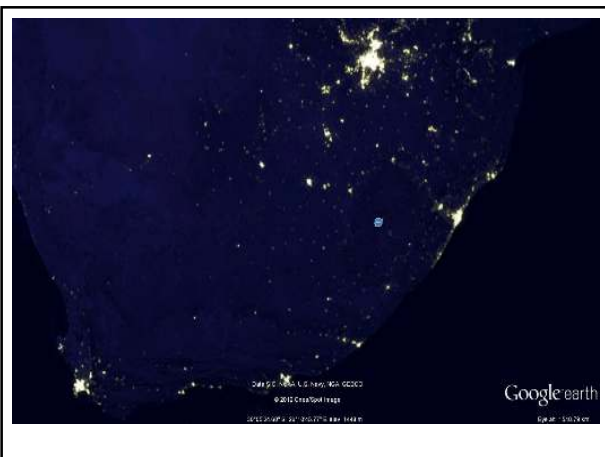
**Comparative advantage, 2012**

Cost



**MegaCities**

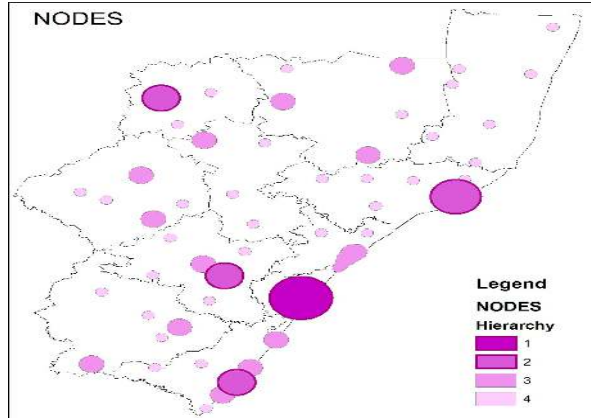
Chongqing in southwest China is one of the emerging Megacities with a population of more than 32 million people, sprawled over an area of 82 300 km<sup>2</sup> (this is larger than the Czech Republic, with 78 867 km<sup>2</sup>). Chongqing is de facto a Chinese province with the status of a provincial-level municipality like Shanghai, Beijing and Tanjin.



## SPATIAL TRENDS



## NODES



- Ethekewini Municipality (Durban). It is the economic hub of KwaZulu-Natal and the major import/export center in South Africa.
- Msunduzi Municipality (Pietermaritzburg). It is the second largest city within KwaZulu-Natal and is the capital city of the province of KwaZulu-Natal.
- Umhlathuze Municipality (Richards Bay, Empangeni). It is the home of manufacturing in the province, boasting two world class aluminium smelters and the world's largest export coal terminal.

- Hibiscus Coast Municipality (Port Shepstone). It covers an area of approximately 90 km of coastline, comprising of 21 beaches, not surprisingly the premier tourism destination in the South Africa.
- Newcastle Municipality (Newcastle). Situated in the northern corner of the province it is has significant coal deposits and agricultural land.

- Almost 50 percent of the provincial population resides in the 5 main nodes
- Almost 80 per cent of the provincial GDP are produced in the 5 main nodes
- Personal per capita income are more than double in the 5 main nodes compared to the rest of the province
- Poverty levels are almost half in the 5 main nodes compared to the rest of the province
- The 5 main nodes cover only about 8.5 per cent of the total provincial land cover
- Population density levels at more than 12 times higher in the 5 main nodes compared to the rest of the province

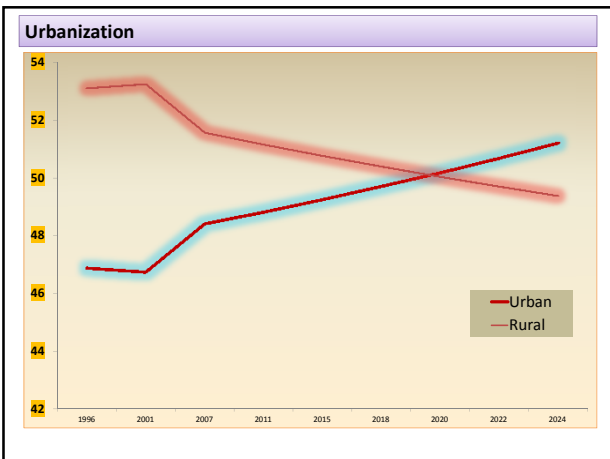
Population	Urban	Rural	Urban Ratio	Rural Ratio
1996 Census	3,949,387	4,467,634	46.92	53.08
2001 Census	4,483,295	5,100,834	46.78	53.22
2007 Community Survey	4,968,887	5,290,343	48.43	51.57
2011 Census	5 014 727	5 252 576	48.80	51.2
1996 to 2001 % change	13.52	14.17		
2001 to 2007 % change	10.83	3.72		
2001 to 2011 % change	11.9	3.0		
Global Insight 1996	4,057,309	4,789,752	45.86	54.14
Global Insight 2001	4,511,230	5,048,530	47.19	52.81
Global Insight 2007	4,864,223	5,221,624	48.23	51.77
Global Insight 2010	5 090 228	5 338 723	49.1	50.9
1996 to 2001 % change	11.19	5.40		
2001 to 2007 % change	7.82	3.43		
2007 to 2010 % change	3.21	2.08		

**Urbanization**

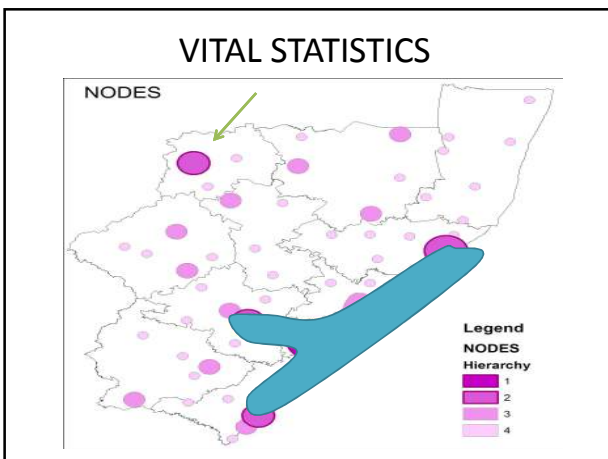
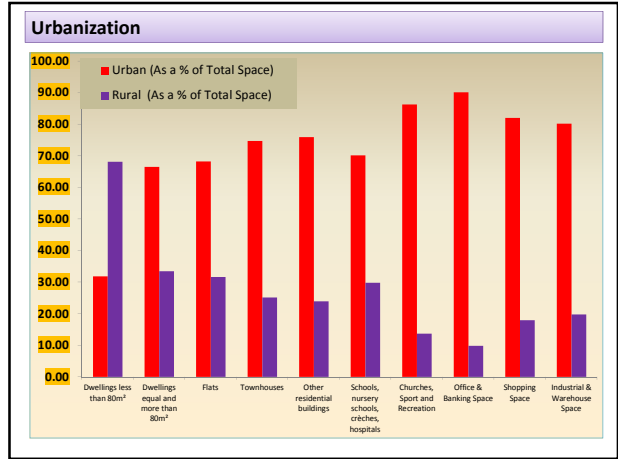
	Rural	Urban
km <sup>2</sup>	93.34	6.66

Density	Rural	Urban
1996	52 126	608 887
2003	54 682	690 065
2011	56 554	749 001



Total Space Expansion	Urban Space Expansion, m <sup>2</sup>	Rural Space Expansion, m <sup>2</sup>	Total Provincial Space Expansion, m <sup>2</sup>	Urban (As a % of Total Space)	Rural (As a % of Total Space)
Dwellings less than 80m <sup>2</sup>	1 156 677	2 478 258	3 634 935	31.82	68.18
Dwellings equal and more than 80m <sup>2</sup>	2 666 289	1 342 459	4 008 748	66.51	33.49
Flats	770 782	357 797	1 128 579	68.30	31.70
Townhouses	1 723 337	581 016	2 304 353	74.79	25.21
Other residential buildings	293 199	92 524	385 723	76.01	23.99
Schools, nursery schools, crèches, hospitals	93 394	39 700	133 094	70.17	29.83
Churches, Sport and Recreation	176 526	28 065	204 591	86.28	13.72
Office & Banking Space	900 689	98 429	999 118	90.15	9.85
Shopping Space	2 244 989	490 451	2 735 440	82.07	17.93
Industrial & Warehouse Space	1 833 300	452 499	2 285 799	80.20	19.80



## Land and Water transport - % of Total Sector GDP

	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North-West	Gauteng	Mpumalanga	Limpopo
1996	11.49	7.99	3.10	7.07	26.60	6.65	23.60	7.93	5.57
1997	11.60	7.86	2.91	7.03	26.38	6.46	23.82	8.11	5.83
1998	11.78	7.57	2.83	6.90	26.34	6.53	23.67	8.41	5.98
1999	11.89	7.52	2.75	6.71	26.17	6.01	23.98	8.64	6.33
2000	11.97	7.27	2.67	6.59	25.97	5.83	24.89	8.43	6.38
2001	12.03	7.12	2.39	6.37	25.58	5.60	25.39	8.16	7.35
2002	11.57	7.14	2.39	6.16	25.82	5.81	25.12	8.03	7.96
2003	11.77	6.86	2.37	5.90	25.88	5.96	25.20	8.31	7.76
2004	11.83	6.79	2.38	5.83	25.86	5.93	25.48	8.30	7.61
2005	12.14	6.85	2.44	5.81	26.20	5.91	24.84	8.34	7.47
2006	11.94	6.78	2.43	5.88	26.34	6.07	24.54	8.41	7.59
2007	11.95	6.72	2.44	5.89	26.52	6.07	24.37	8.40	7.63
2008	11.72	6.64	2.42	5.95	26.64	6.30	24.05	8.52	7.77
2009	11.63	6.66	2.38	5.94	27.05	6.21	23.89	8.61	7.63
2010	11.48	6.64	2.37	6.01	27.41	6.23	23.61	8.70	7.55
2011	11.49	6.65	2.36	6.01	27.38	6.31	23.58	8.73	7.49
2012	11.45	6.61	2.35	6.00	27.46	6.37	23.61	8.77	7.38
2013	11.45	6.59	2.34	6.01	27.52	6.39	23.53	8.81	7.36

## Air transport and transport supporting activities- % of Total Sector GDP

	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North-West	Gauteng	Mpumalanga	Limpopo
1996	19.32	4.49	0.67	1.75	19.25	1.28	45.28	2.78	5.17
1997	19.28	4.38	0.62	1.71	18.81	1.17	45.85	2.86	5.33
1998	19.96	4.29	0.60	1.72	18.06	1.15	44.75	3.03	5.44
1999	20.02	4.23	0.58	1.66	18.66	1.01	45.08	3.13	5.64
2000	19.53	4.03	0.54	1.58	18.12	0.94	47.05	2.98	5.24
2001	19.57	3.92	0.48	1.51	17.71	0.89	47.18	2.85	5.89
2002	18.95	3.97	0.48	1.46	17.99	0.92	46.99	2.86	6.38
2003	19.14	3.79	0.48	1.39	17.98	0.94	47.12	2.97	6.20
2004	19.09	3.73	0.47	1.36	17.88	0.93	47.50	2.97	6.06
2005	19.64	3.77	0.48	1.36	18.24	0.93	46.54	3.02	6.01
2006	19.39	3.76	0.48	1.37	18.50	0.96	46.34	3.07	6.12
2007	19.38	3.73	0.48	1.37	18.71	0.97	46.18	3.07	6.12
2008	19.15	3.71	0.48	1.38	18.96	1.03	45.88	3.14	6.27
2009	19.12	3.73	0.47	1.37	19.24	1.03	45.70	3.21	6.12
2010	19.05	3.74	0.47	1.38	19.55	1.06	45.39	3.29	6.07
2011	19.11	3.73	0.46	1.36	19.52	1.08	45.40	3.29	6.05
2012	19.04	3.70	0.46	1.35	19.56	1.10	45.53	3.29	5.98
2013	19.05	3.69	0.45	1.35	19.63	1.11	45.45	3.31	5.98

## Land and Water transport

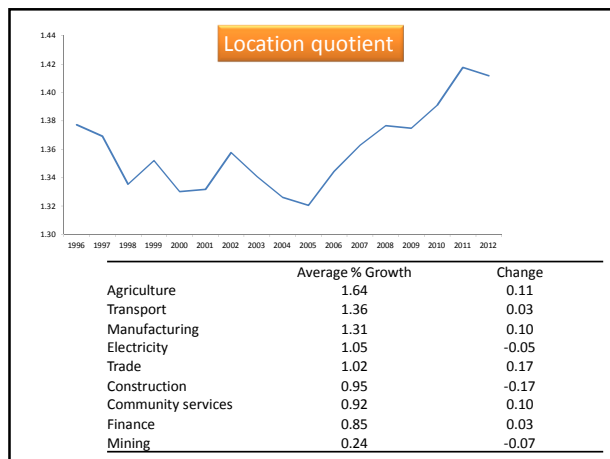
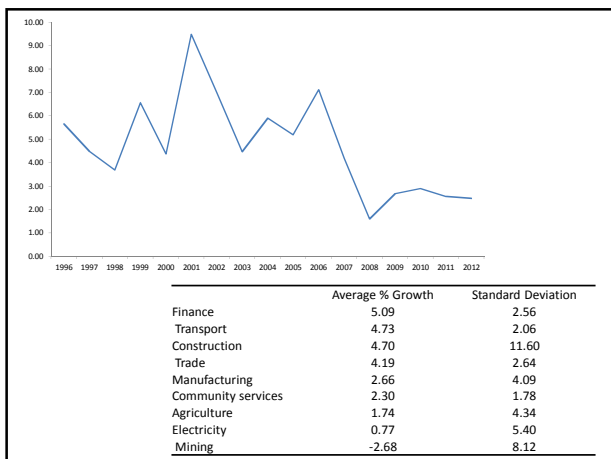
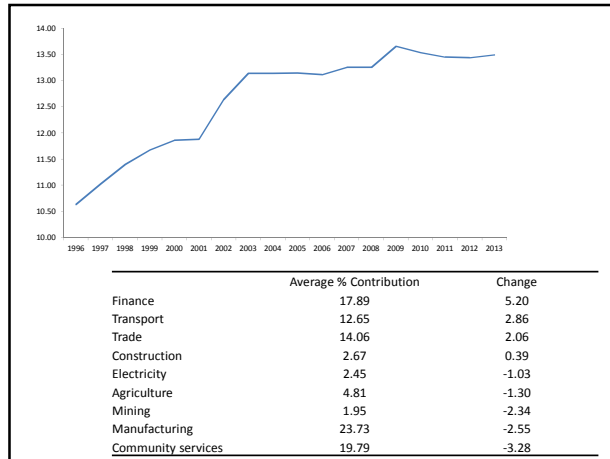
	Average % Growth	Standard Deviation
Limpopo	4.28	7.09
Mpumalanga	3.07	3.56
KwaZulu-Natal	2.62	3.00
Gauteng	2.46	4.60
Western Cape	2.44	4.21
North-West	2.22	4.28
Free State	1.43	2.56
Eastern Cape	1.26	2.86
Northern Cape	0.76	3.68

## Air transport and transport supporting activities

	Average % Growth	Standard Deviation
Mpumalanga	6.73	5.16
Limpopo	6.46	4.00
KwaZulu-Natal	5.73	4.64
Gauteng	5.61	4.14
Western Cape	5.51	4.21
North-West	4.85	6.82
Eastern Cape	4.39	4.54
Free State	4.00	4.88
Northern Cape	3.34	6.26

### Transport as a % of Total KZN GDP

	Agriculture	Mining	Manufacturing	Electricity	Construction	Trade	Transport	Finance	Community services
1996	5.60	3.57	24.44	2.91	2.65	12.78	10.63	15.19	22.23
1997	5.48	3.55	24.63	2.96	2.75	12.61	11.02	15.55	21.45
1998	5.47	3.46	24.27	2.75	2.41	12.59	11.40	15.76	21.89
1999	5.27	2.48	24.38	2.72	2.25	13.34	11.67	16.53	21.36
2000	5.21	2.31	25.26	2.75	2.23	13.78	11.86	15.96	20.65
2001	4.99	2.10	24.98	2.63	2.86	14.25	11.88	16.20	20.09
2002	5.08	1.83	24.94	2.81	2.20	14.21	12.63	16.56	19.76
2003	5.19	1.88	24.02	2.42	2.24	14.29	13.14	17.00	19.84
2004	4.98	1.84	24.07	2.48	2.35	14.42	13.14	17.45	19.28
2005	4.43	1.63	24.13	2.50	2.51	14.49	13.14	18.21	18.95
2006	4.23	1.49	24.27	2.45	2.57	14.62	13.12	18.60	18.66
2007	4.15	1.44	24.11	2.38	2.77	14.57	13.26	18.91	18.40
2008	4.56	1.29	23.73	2.20	2.89	14.13	13.26	19.49	18.46
2009	4.50	1.23	21.68	2.14	3.17	14.34	13.66	20.08	19.20
2010	4.44	1.30	22.20	2.09	3.11	14.42	13.54	19.88	19.02
2011	4.33	1.23	22.14	2.04	3.02	14.63	13.45	20.11	19.04
2012	4.33	1.23	22.02	1.92	3.02	14.78	13.44	20.24	19.02
2013	4.23	1.23	21.88	1.88	3.04	14.83	13.50	20.40	18.96





## Rail Rapid Transport



- Reduces use of fossil fuels, thus, reduces reliance on imported petroleum
- Reduces car, bus and airplane exhaust emissions
- Reduces traffic demand
- Reduces travel time and the stress of highway congestion
- Reduces the risk of highway accidents and accident-related injuries and fatalities

- Avoids the need to widen current road infrastructure
- Provides a transport link in the province (road-rail, sea and air)
- Provides jobs during construction and hundreds of long term jobs thereafter, generating economic activity equivalent to several times more than the direct investment in the project

## Comparison



Total Road Travel Cost	Ethekwini	Msunduzi	Umhlatuze	Hibiscus Coast	Newcastle
<b>Ethekwini</b>	R 0	R 508	R 1,135	R 772	R 2,198
<b>Msunduzi</b>	R 508	R 0	R 1,795	R 1,142	R 1,690
<b>Umhlatuze</b>	R 1,135	R 1,795	R 0	R 1,993	R 2,752
<b>Hibiscus Coast</b>	R 772	R 1,142	R 1,993	R 0	R 2,831
<b>Newcastle</b>	R 2,198	R 1,690	R 2,752	R 2,831	R 0

Total Rail Travel Cost	Ethekwini	Msunduzi	Umhlatuze	Hibiscus Coast	Newcastle
<b>Ethekwini</b>	R 0	R 169	R 378	R 257	R 733
<b>Msunduzi</b>	R 169	R 0	R 598	R 381	R 563
<b>Umhlatuze</b>	R 378	R 598	R 0	R 664	R 917
<b>Hibiscus Coast</b>	R 257	R 381	R 664	R 0	R 944
<b>Newcastle</b>	R 733	R 563	R 917	R 944	R 0

ROAD TRAVEL		AIR TRAVEL	
Durban	Johannesburg	Durban	Johannesburg
km	1,112	km	1,112
Travel Time (100km/h)	11.12	Travel Time	2.33
Travel Costs	R 5,115	Travel Costs	R 1,000
Time Costs	R 2,224	Time Costs	R 467
Transfer	R 0	Transfer	R 500
<b>Total Costs</b>	<b>R 7,339</b>	<b>Total Costs</b>	<b>R 1,967</b>

RAIL TRAVEL	
Durban	Johannesburg
km	1,112
Travel Time	6.95
Travel Costs	R 1,000
Time Costs	R 1,390
Transfer	R 100
<b>Total Costs</b>	<b>R 2,490</b>



- Give Metro Status to the three municipalities
- Collapse the in-between municipalities
- Allocate proportionally to the metro's
- Create Multiple Transport Networks in the megapolis
- Road, Rail for Passengers and Freight
- Create EU type Commission
- Establish Joint Planning and Budgeting Frameworks

### KZN Regional Airports



### Our Regional Airports

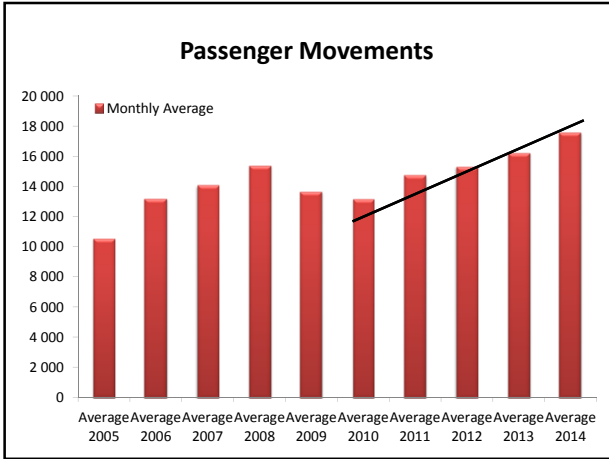


### Passenger Flights pre-2011



### Passenger Flights 2011 to 2014





### Increased Scheduled Flights, Destinations and Passenger Movements

- Avis Opened an Office in Ulundi**
- Total savings of +-R6m pa for PMB Businesses using PMB Airport re KSIA**
- Increased number of direct jobs at the 9 regional airports = 36**
- Savings for KZN Gov from using flights to and from Ulundi = +-R3.5m April 12 to Jun 14**
- Total Investment in 9 regional airports = +-R115m post 2010**
- Number of Property Sales in Margate because of direct flights**
- Revenue to the Msunduzi Municipality increased from R3.5m in 2010 to R7.4m in 2013**

