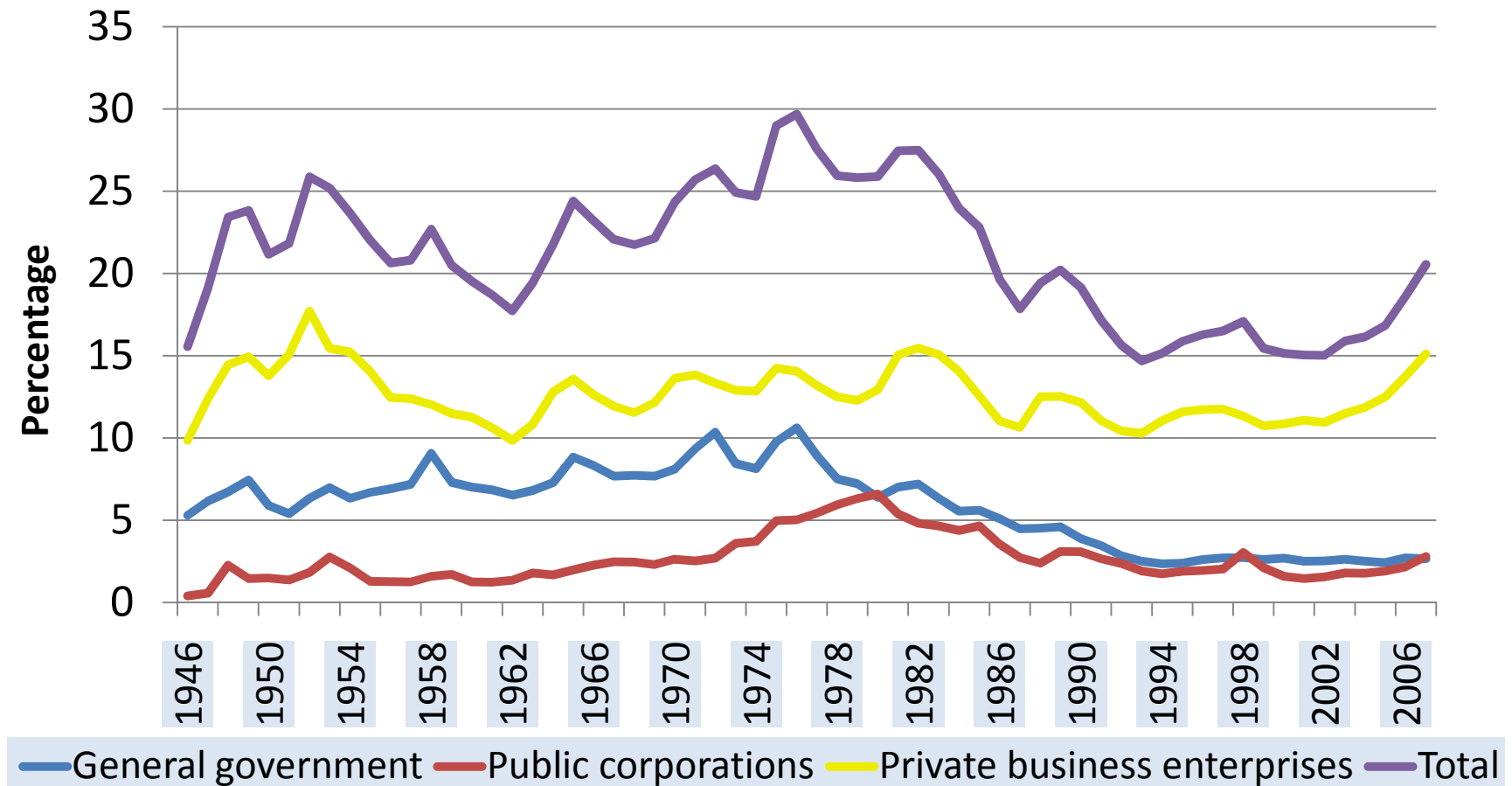


The South African Road Condition

SPAID, DBSA, SACN Infrastructure Dialogue 26 Aug 2010

Peter Copley
Transport Specialist
DBSA

Real Gross Fixed Capital Formation by Private Sector, Government and Public Corporations on Economic and Social Infrastructure, 1946 -2007 (Rm)



Education infrastructure requirements to achieve the desired future

- 42% of schools are overcrowded
 - Over 3000 are without water
 - 1500 without toilets
 - 4200 without electricity
 - 79% without libraries
 - 68% without computers
 - 60% without laboratories
- NEIMS estimates R153 billion capital expenditure backlog and R30 billion maintenance versus R18 billion budgeted over next three years.



**Cooperative Governance
& Traditional Affairs**

Department
Cooperative Governance and Traditional Affairs
REPUBLIC OF SOUTH AFRICA



Development Bank
of Southern Africa

Department of Cooperative Governance and Traditional Affairs and Development Bank of Southern Africa

The Municipal Infrastructure Investment Framework MIIF Municipal Roads and Public Transport Sector Report

**Draft 2
8th June 2010**

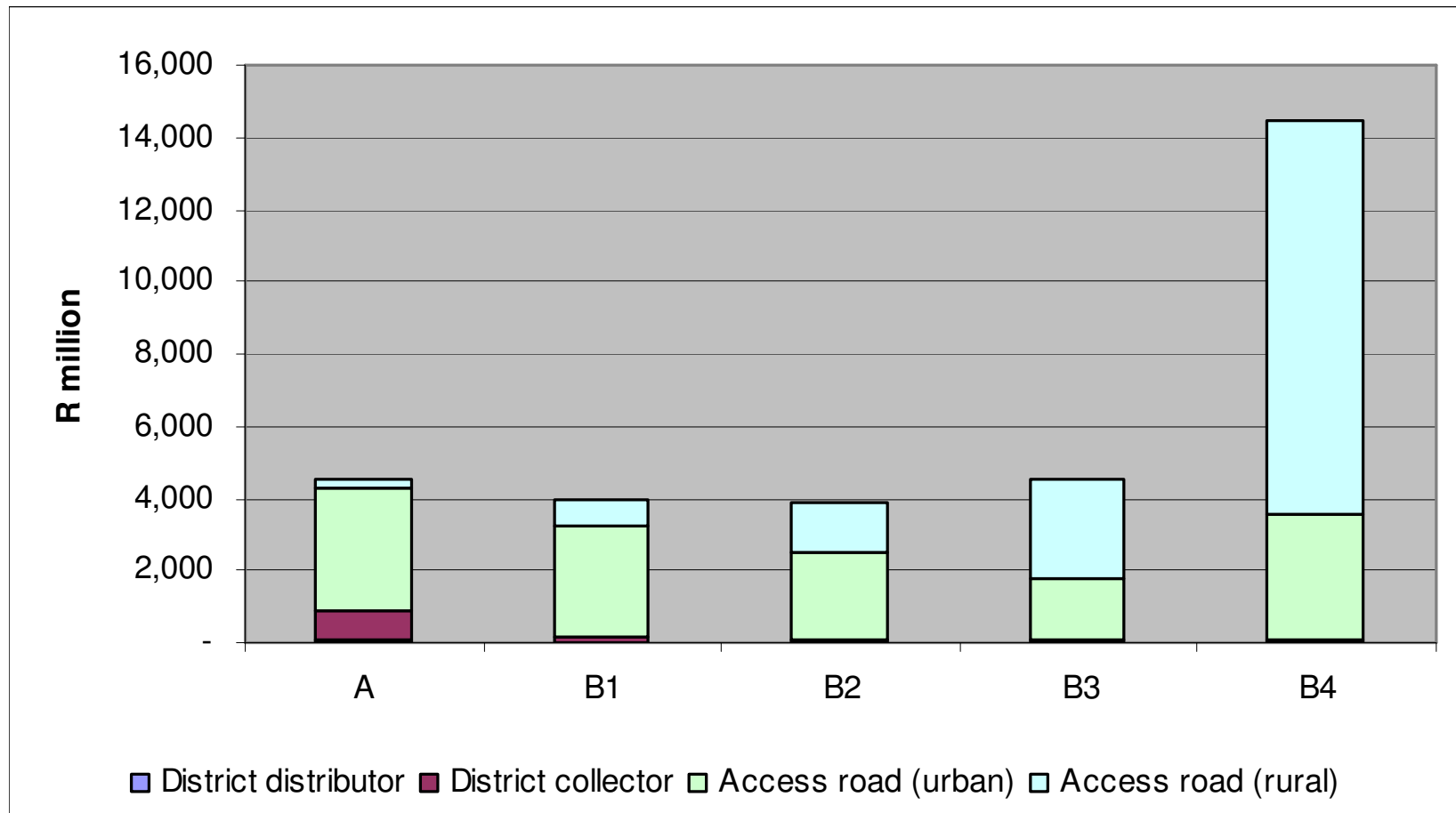
Other significant current documents

- The condition of South Africa's Roads: SANRAL, for the NDoT
- The performance of the road authorities and agencies, SABITA
- 'Infrastructure to 2030': OECD publications: October 2006
- The Africa Country Infrastructure Diagnostic Study: The World Bank 2009

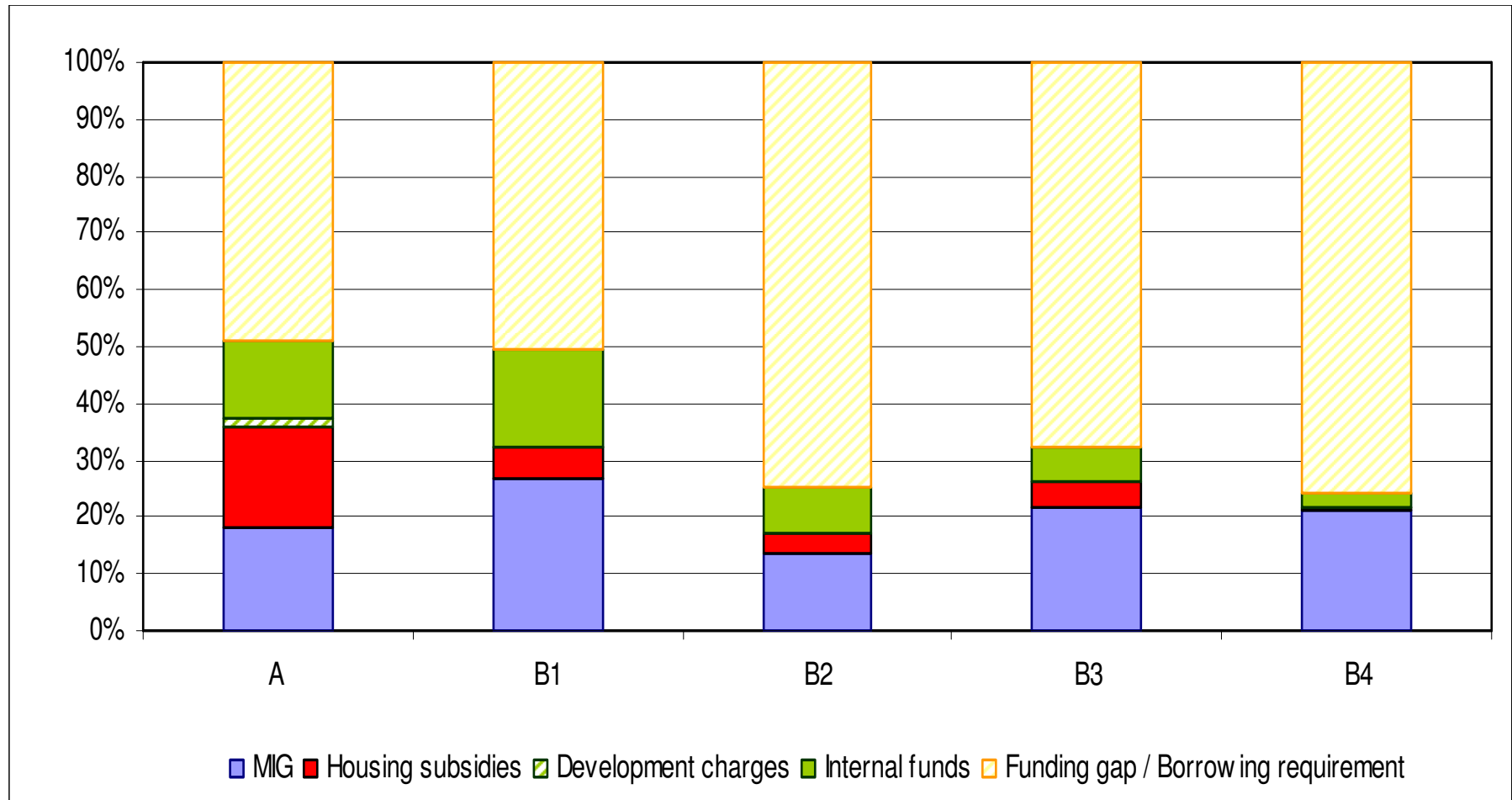
Africa's Infrastructure Backlogs, ex- 'ACIDS'

- US\$98 billion in total
- Energy 50%
- Transport 25%
- ICT 15%
- Water and Sanitation 10%
- South Africa much the same proportions which suggests that a primary road and rail priority HAS to be to deliver coal to power stations
- Estimated road cost to do that, R31 bn
- Gauteng Freeway Improvement Project R45bn

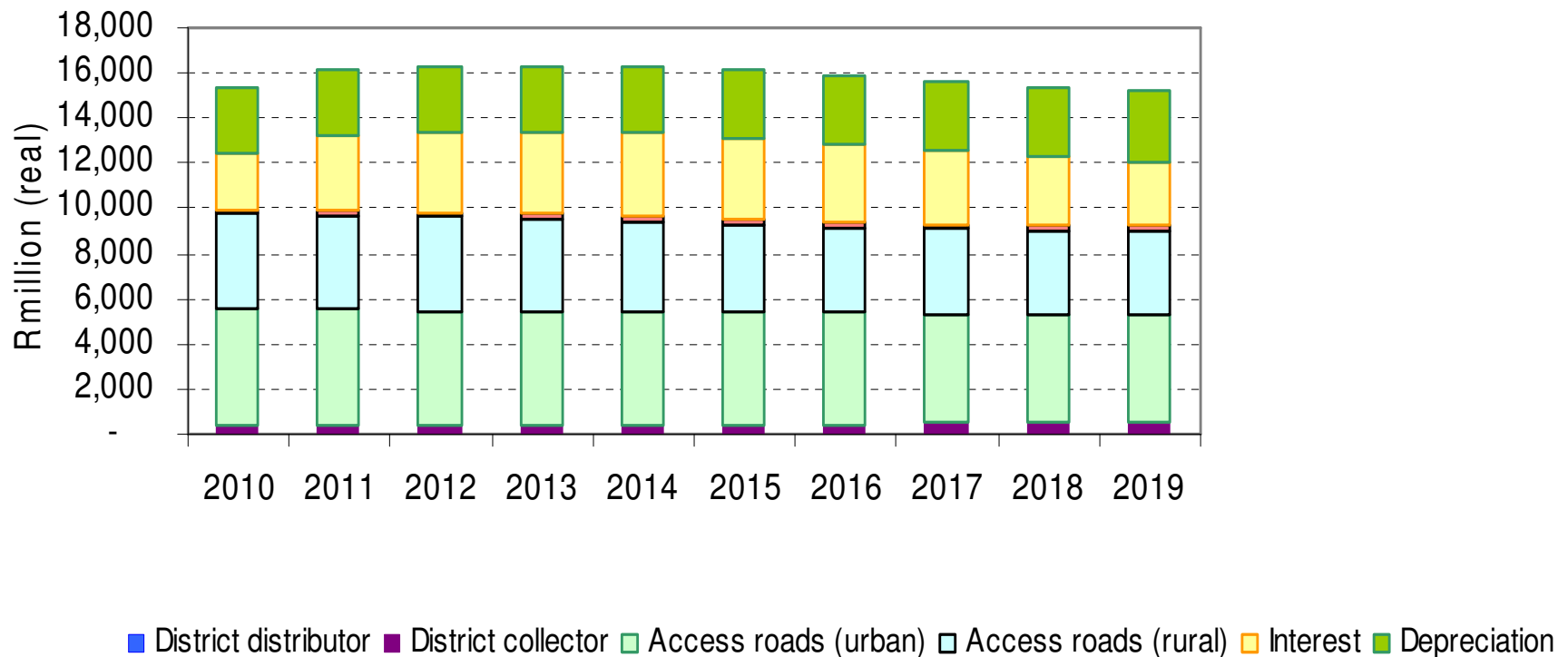
Required roads capital expenditure by road type and municipal category – base year



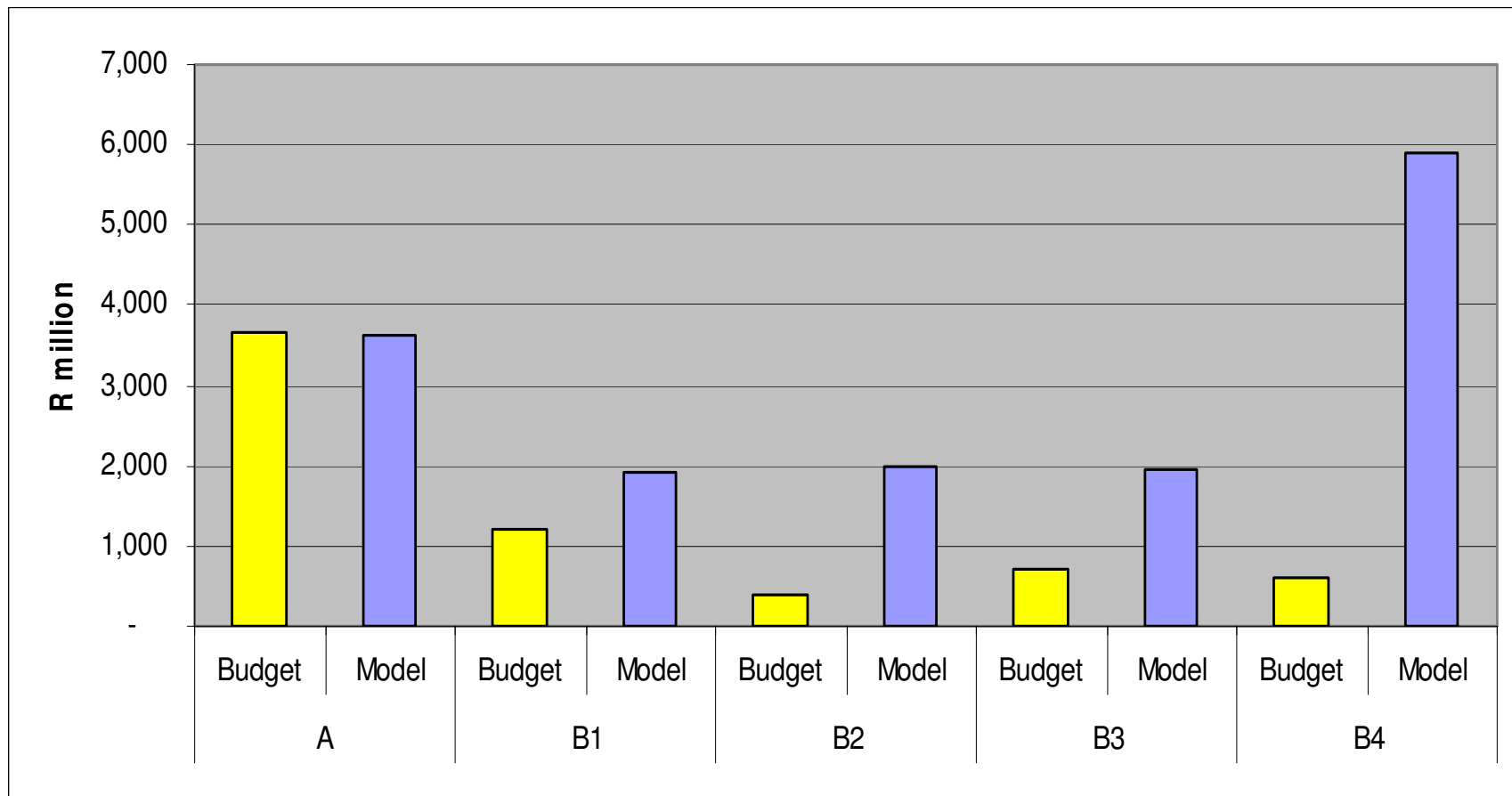
Capital revenue source by municipal category



Total reqd municipal roads operating expenditure



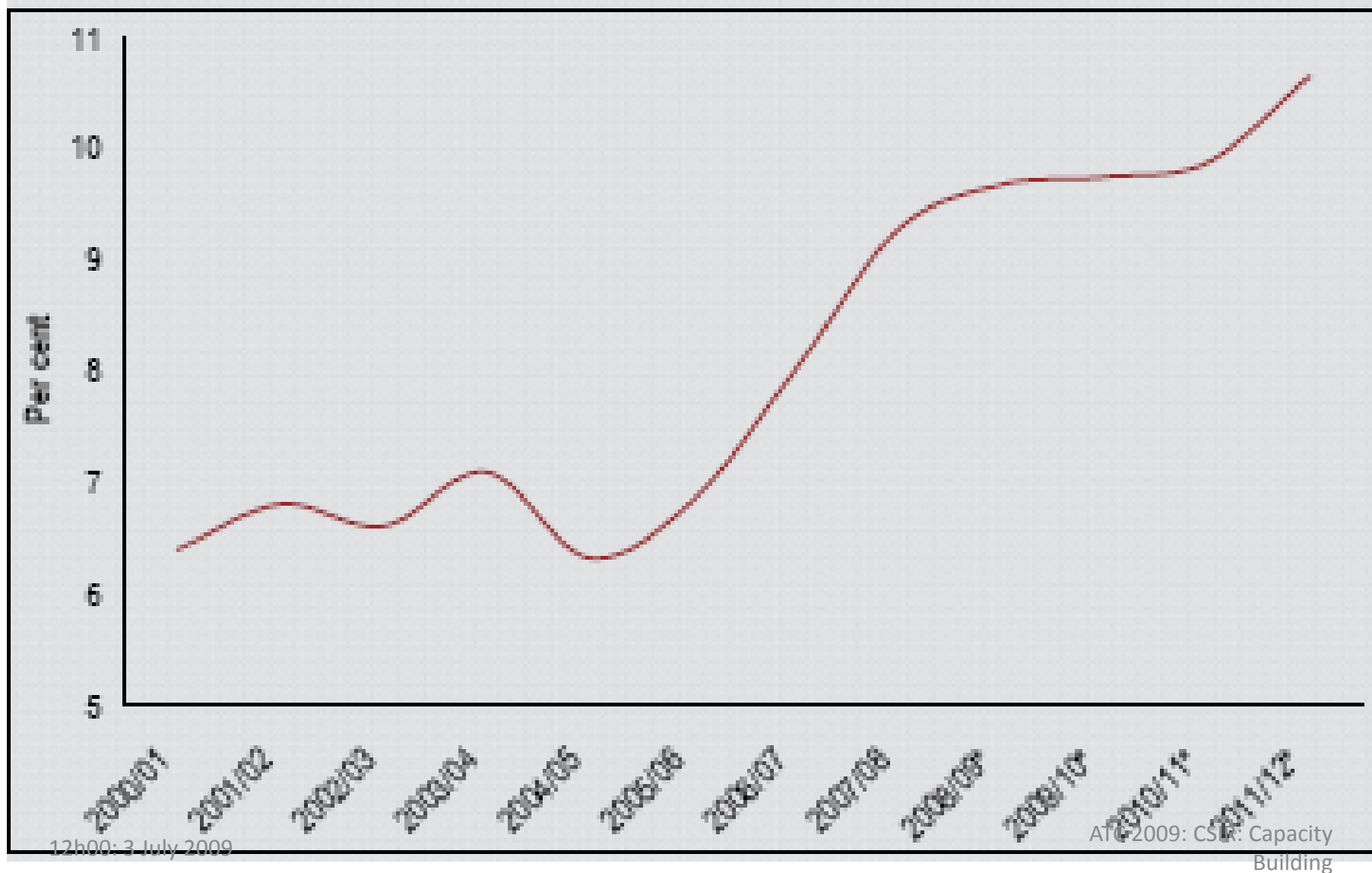
Budgeted vs. Modelled roads operating expenditure by municipal category



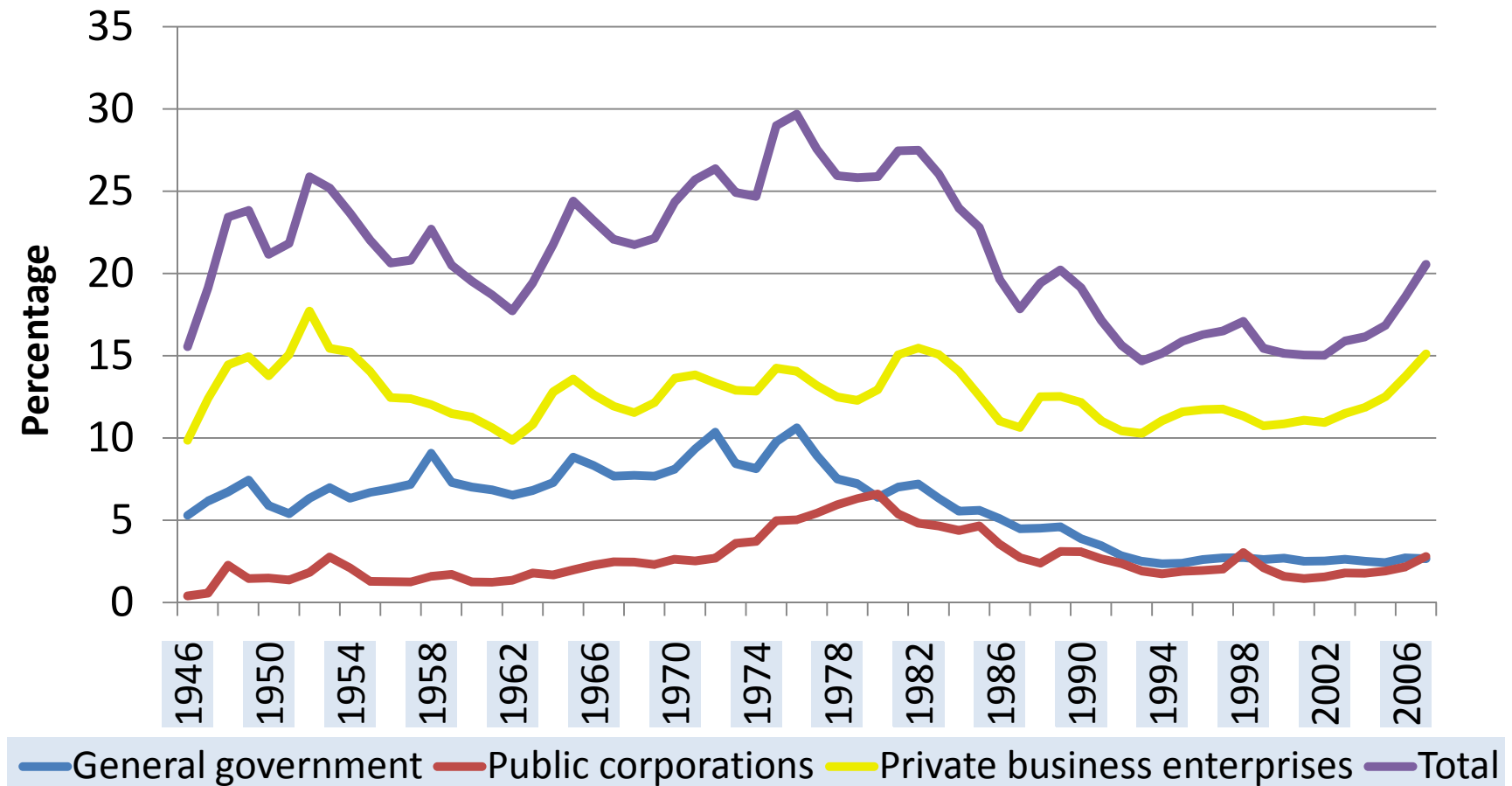
‘What do we do?!’

- Firstly recognise that South Africa needs to spend twice what it currently does per annum to reinstate the network, of which 85% needs to be rehabilitated (Electricity also requires twice as much revenue; Rail three times as much)
- National Treasury knows this and road allocations have been growing at 16% per annum for the last five years
- The ‘road condition’ curves DO seem to be stabilising

CAPITAL SPENDING AS A PERCENTAGE OF CONSOLIDATED GOVERNMENT EXPENDITURE 2000/01 – 2010/11



Real Gross Fixed Capital Formation by Private Sector, Government and Public Corporations on Economic and Social Infrastructure, 1946 -2007 (Rm)



Problem primarily financial

- Let's stop flogging the institutions, which are as stressed as we all are
- Three sources of funding for roads:
 - Direct user charging for 'economic' roads
 - General tax base for 'social' roads
 - Fuel levy for roads with a dual purpose
- Road tolling a success for roads carrying >4 000 AADT
- General tax base for municipal 'social' roads, recognising that allocations need to double (alternatively seek a ZAR 23 bn external loan, as has ESKOM)

The Fuel Levy

- Is currently one third of the pump price of fuel, which places South Africa at about the 40 percentile in the World distribution
- Raises ZAR 20 billion per annum which the National Treasury DOES allocate back to road based transport including roads, bus subsidy, taxi recapitalisation and commuter rail subsidy
- Unfortunately demand, from NDoT alone, is for ZAR 25 billion annually

A ZAR 75 billion road fund

- In 2005, the RISFSA Report identified to Cabinet that the road backlog was ZAR 38 bn
- In 2010, the MIIF identifies that same current backlog as being ZAR 75 bn
- A ministerial response is to suggest a ZAR 75 bn road fund
- This would require a doubling of the fuel price if it were to be funded directly by a levy on fuel

Towards a financial solution

- Mpumalanga Coal Roads refurbishment entailing a R100 'shadow toll', escalating at CPI, on each coal delivery truck entering a power station, to finance ZAR 30 bn over 10 years
- Gauteng Freeway Improvement Project at R0,50 per light vehicle km and R4,50 per heavy vehicle km, to finance ZAR 48 bn over 15 years
- In concept this reduces a ZAR 75 bn to a ZAR nil backlog!
- Unfortunately this does not address the 725 000 other kilometers of road, of which 160 000 km are 'unowned'

What is sustainability?

Environmental

Economic

Social

Financial

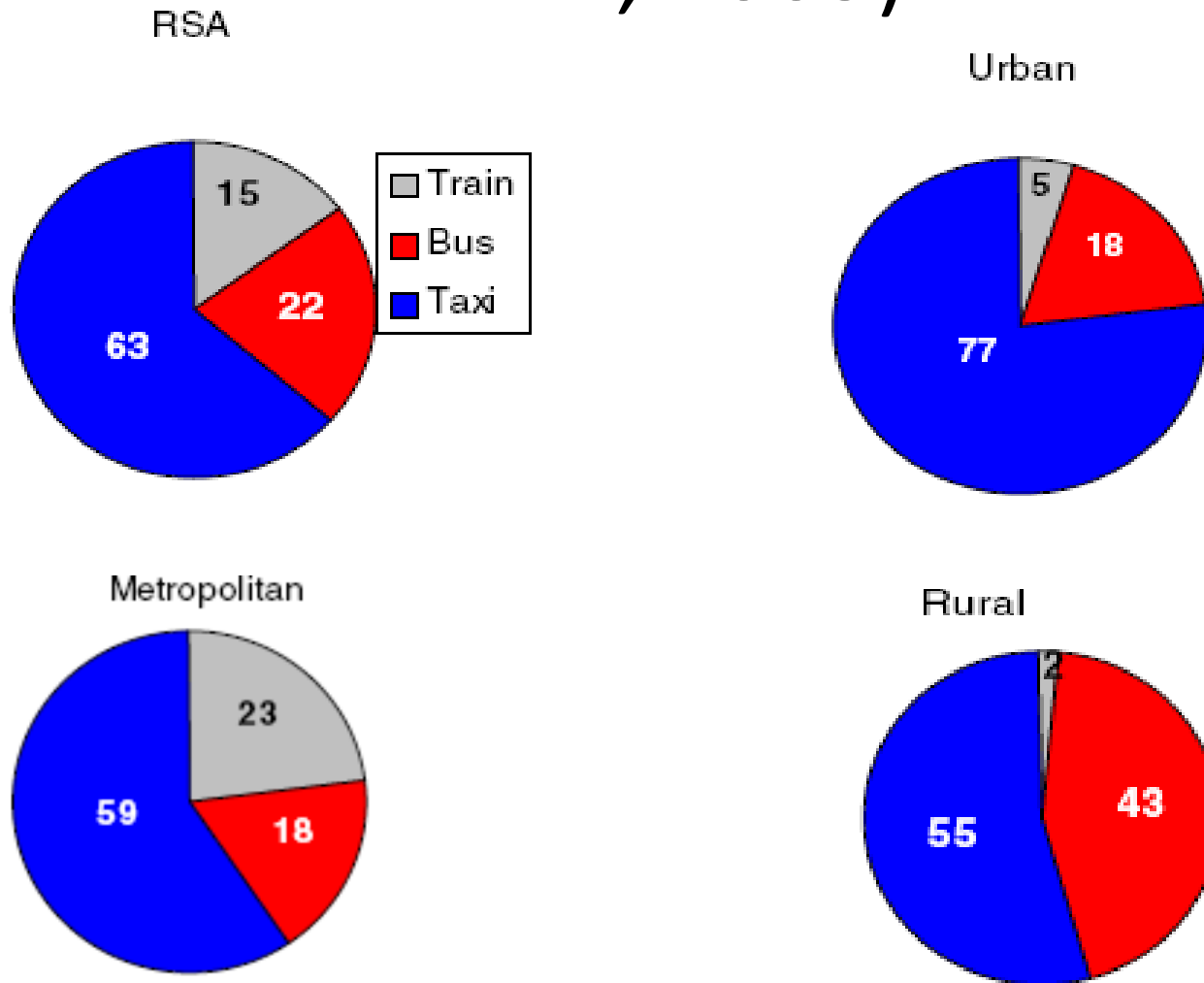
Technical

Institutional

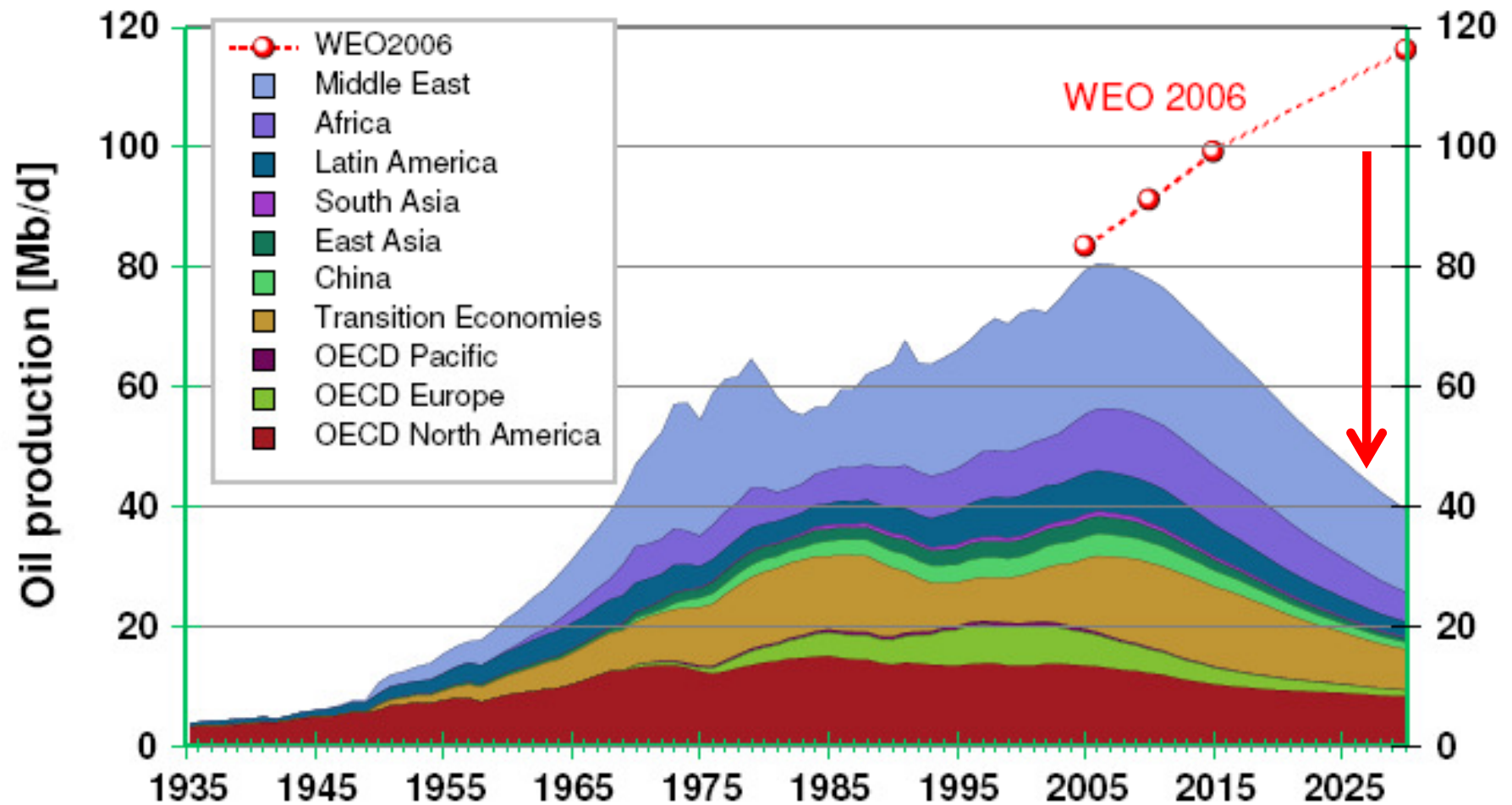
An ongoing solution

- Recognise the need to think laterally
- Recognise the Soccer World Cup and its achievements with a single focus (NOT current rugby! And contrast downward evolution from 'Provincial Road Engineers', to 'Directors of Works and Roads', to 'Heads of Departments of Roads, Public Works and Transport')
- Encourage public transport through land use change AND value capture for BRT systems AND through gently guiding developers towards supporting public transport and considering public transport subsidy in their applications for changes to land use
- Rationalise rural networks through objective river crossings

Split of public transport between modes by settlement type (Source: DoT, 2005)

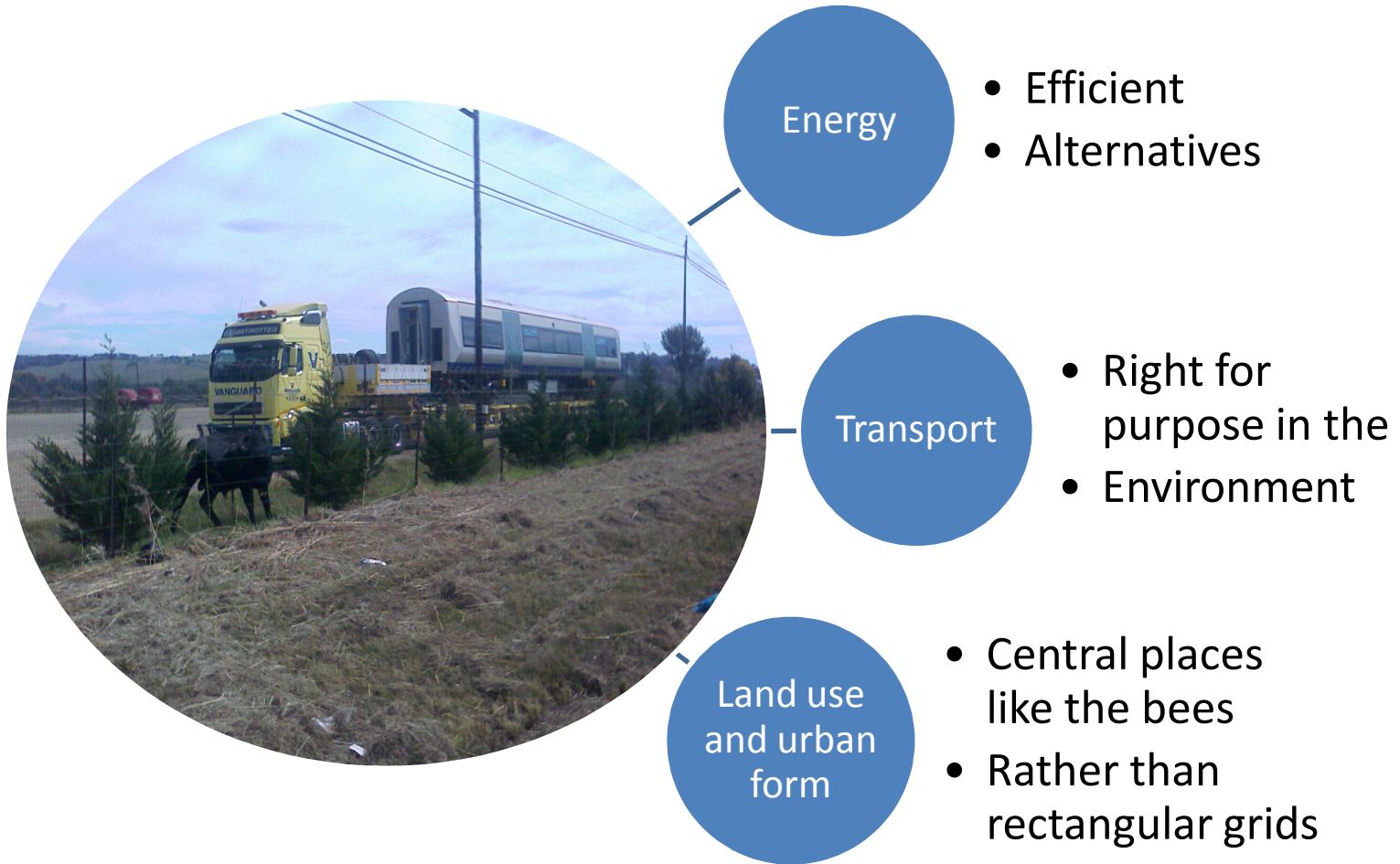


World Oil Production Forecast

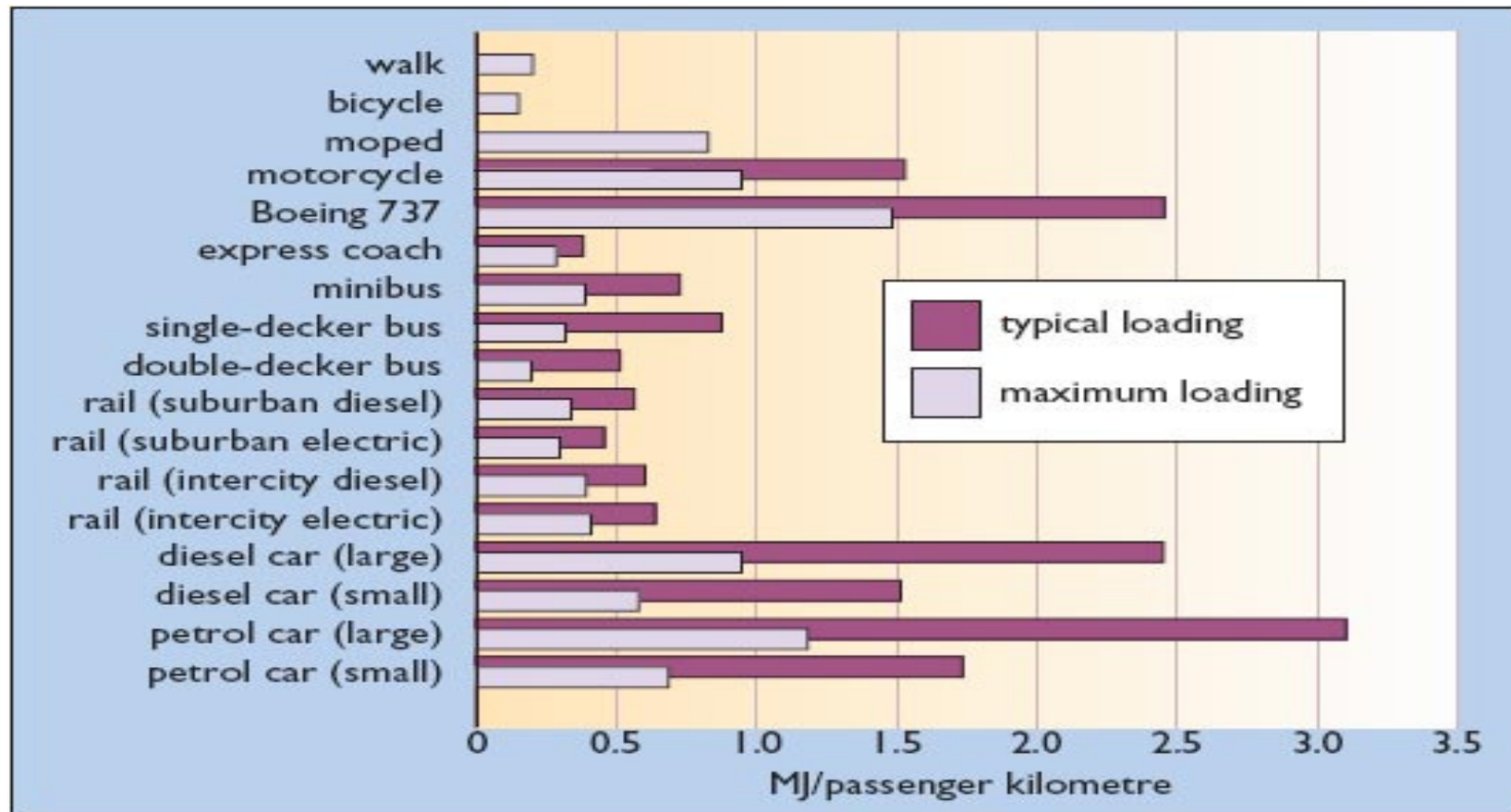


Source: Energy Watch Group (2007)

Fundamentals

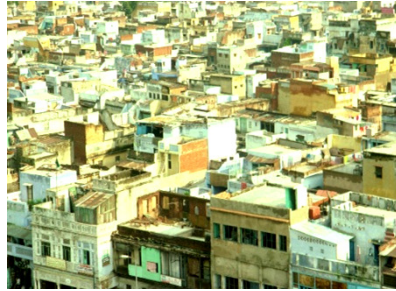


Transport Energy Efficiency



Source: <http://openlearn.open.ac.uk/file.php/1697/t206b1c01f49.jpg>

Analysis and evaluation of past and present problems associated with transportation of people and goods



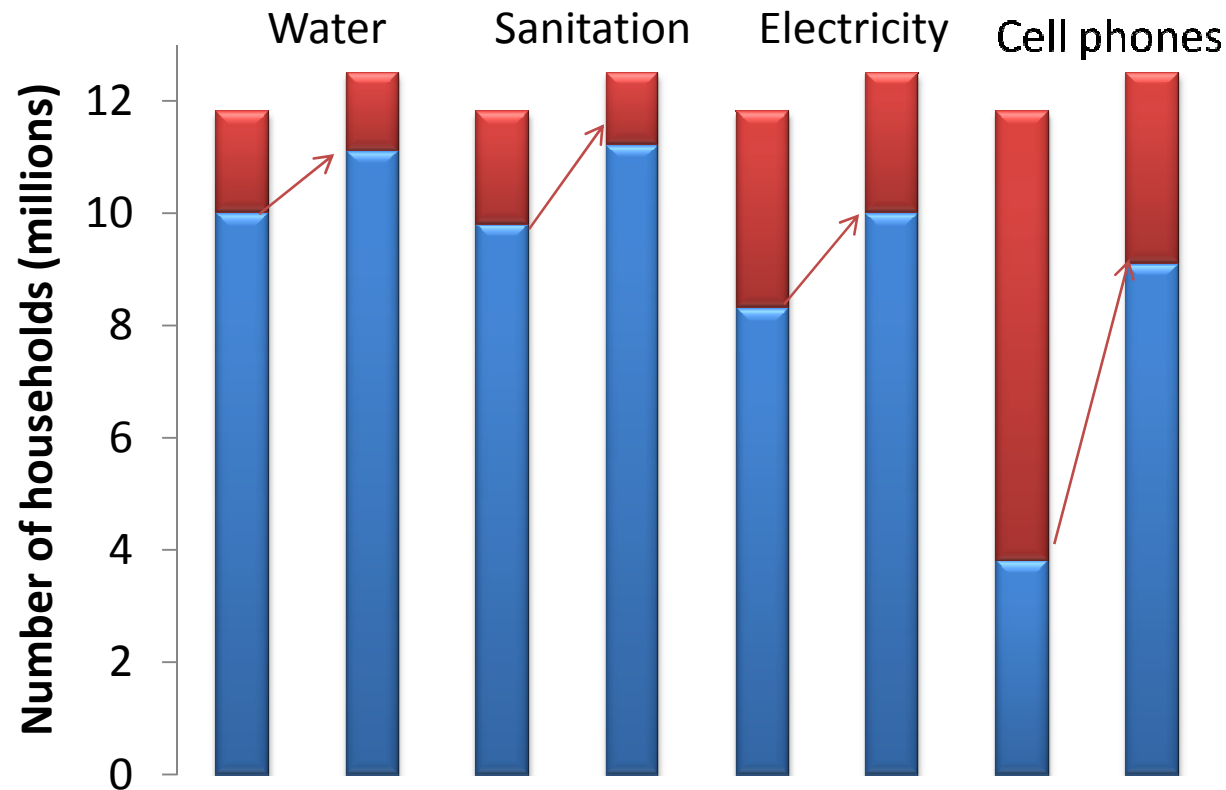
“The significant problems we face cannot be solved at the same level of thinking we were (at) when we created them.” Albert Einstein (Thank you Brian Marian of the CSIR for this slide)





Infrastructure Barometer

Developing and Renewing Infrastructure: Chasing Moving



	Coverage	Backlog
water	10.0	1.8
	11.1	1.4
sanit	9.8	2.0
	11.2	1.3
elec	8.3	3.5
	10.0	2.5
cell	3.8	8.0
	9.1	3.4

2001 2007 2001 2007 2001 2007 2001 2007

Economic and Social
Infrastructure in South Africa:
Scenarios for the future

Thank you

peterc@dbsa.org

From the OECD....amongst 15 policy statements

- 'Infrastructure is long term in nature and its provision is necessary irrespective of different political persuasions'
- 'The governments of THE WORLD can no longer afford to provide necessary infrastructure unaided. There have to be PPP's'
- 'Asset management is as important as new construction'