Infrastructure – what is happening?

Over the years, we have often high-lighted the investment South Africa is making in infrastructure. It bears looking at again in 2015, when load-shedding, days without water, and communities up in arms because of weak service delivery leave us gloomy, undermine confidence and retard growth.

Is infrastructure in SA really just a one-way street of decline and eventual collapse? What, if anything, is being done about these problems? The recently released Budget Review contains interesting answers.

The big picture

Over the five years from 2009/10 to 2013/14 just over R1 trillion was spent by the government on infrastructure. That came to about 6.7% of GDP over the five years. Over the four years from 2014/15 to 2017/18 another R1.08 trillion will be spent, amounting to 6.2% of GDP. That is a nine year period of consistently high spending on infrastructure.

According to the McKinsey Institute China is the big spender on capex at 8.5% of GDP, whilst the average for developing countries varies between 2% and 4%. At above 6% SA's investment is not as high as China's but well above the developing country range.

The biggest area of spending over the next few years will be transport and logistics (R339.2 billion), energy the second biggest (R166.3 billion) and water and sanitation third (R117.4 billion).

Electricity/Energy

Electricity is by far the most urgent and critical for confidence and growth.

Generation

It is well known that **Eskom** is building 3 power stations (Medupi, Kusile and Ingula). Less well known is that this will add 10 916 MW or **25%** to the current grid.

Also less well known is that **private sector** investment will add another **16%** to the grid. A portion of this (1522 MW) is already up and running and part of the current grid. A further 2 578 MW is still to be built from contracts already concluded.

A further 13 contracts is about to be concluded from the latest round of bids. That will deliver an additional 1 100 MW. All in all then, 5200 MW will be produced by private sector players. That compares to the size of Medupi and Kusile at about 4800 MW each. Total private sector investment is estimated at R169 billion, of which 28% is foreign direct investment. All of the 5 200 MW is renewable energy (mainly solar and wind). The idea of a green economy and attracting capital into it is becoming very real.

By June 2015 private sector bids for a 2 500 MW coal-fired power station and 800 MW of co-generation projects will be submitted.

All in all then, some 17 894 MW, or 41%, will be added to the grid over the next four to five years. Sure, a lot of the existing power capacity must be retired due to old age, Eskom is desperate to get rid of expensive diesel generators, a reserve margin of 15% must be re-established and there is a lot of repressed demand for electricity, but an expansion of 41% will go a long way. And through more rounds of bids from the private sector extra MWs can incrementally be added.

On a medium-term view then, the electricity problem will be resolved through Eskom and private sector investment, but it will take time. Load-shedding will be with us into 2018.

Distribution

Apart from generation there is R11.6 billion in the multi-year budgets to be spent on transmission lines, new transformers and the upgrading of sub-stations. 12 new sub-stations will be built and 18 will be upgraded; 330 km of medium-voltage power lines will be built and 285 km will be upgraded.

Over the next 3 years 810 000 households will be connected to the grid and another 65 000 will get off-grid power. That will bring the number of households who have benefitted from electricity since 1994 to about 6.67 million. Assuming average household sizes, that comes to some 27 million South Africans – literally half the population.

Water

About R117.4 billion will be spent on water and sanitation infrastructure projects over four years. More than 229 projects have been earmarked for funding. Whether the much predicted water crisis will materialise I do not know, but a lot of money and effort is certainly being thrown at the issue.

It is interesting to note that SA has issued its first Sukuk bond for $500 million and it involves water infrastructure. "Sukuk, the plural of the term Sukk, is the Arabic for a financial certificate or a bond, which represents or evidences a proportionate interest in an underlying tangible asset and revenue." (Budget Review, pg. 90). The Department of Water and Sanitation has transferred three dams and one water tunnel to a trust which will hold the assets for 5.75 years for the benefit of the Sukuk holders. At the end of the period the debt is repaid and the assets revert back to the Department.

It is an important new source of finance that SA has tapped, which can help finance future infrastructure developments. In essence, existing assets are used to raise money to build new assets.

Transport and Logistics

Ten years ago fewer than 20 trains a day travelled between Johannesburg and Durban. Today that number is 60. This operational revival is accompanied by increased investment. More than R50 billion will be spent over three years on new rolling stock for freight rail and expansion of the manganese and coal export lines. Over a slightly longer time frame, the next seven years, R45.5 billion will be spent on the coal and mineral transport systems.

The Passenger Rail Agency has been allocated R11.2 billion for new trains, the first 44 of which will be delivered over three years. 578 Metrorail and passenger coaches will also be upgraded in each of the next three years.

Roads also benefit. SANRAL will receive more than R39 billion for the maintenance and improvement of the national and coal haulage road network. Nearly R70 billion has been set aside for provinces for road maintenance.

As an aside and talking administrative reform rather than budgets: under the Constitution provinces are responsible for provincial roads and SANRAL for national roads. Several provinces have now surrendered their jurisdiction over provincial roads to SANRAL. Through this voluntary transfer a significant improvement in road maintenance is achieved for (some of) those provinces that need it most.

Social infrastructure

It is not only economic infrastructure that is getting attention, so do housing, health and education.

Over the next three years it is budgeted that 563 000 houses will be built, 750 000 informal settlement sites up-graded with services connected to those sites, and 27 000 social housing units provided. This will be a step up in housing for another few million South Africans.

R16.6 billion is earmarked to construct, upgrade and maintain health facilities.

Also over the three years 510 inappropriate or unsafe school structures will be replaced; running water provided to 1120 schools; sanitation to 741 and electricity to 916.

Cumulative effect

Looking back at Budget Reviews from previous years, I am struck by the fact that these reams of numbers I have been quoting can actually be quoted for each of the last few years. The cumulative effect of all this is surely important. A few hundred kilometres of electricity transmission lines may not seem like much. Repeat it every year for ten years and a different reality takes hold. We have seen it visibly in social infrastructure where millions now have access where they previously did not. The same accumulation process is playing out in economic infrastructure.

So What?

- Compared to other developing countries SA spends a substantial proportion of GDP on infrastructure.
- We are looking at the significant expansion of infrastructure, not the collapse of it.
- The dividend on these expansions, particularly electricity, will take a while to pay out. In the interim, there will be discomfort and most probably social unrest.