

# The Greening of infrastructure and socio-economic development: friends or foes?

DBSA Knowledge Week

Rudi Dicks

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“it is workers, the poor and developing countries that will be adversely affected by climate change”...that “unless the working class and its organizations take up the issue of climate change seriously, all the talk about ‘green jobs’ will amount to nothing”

COSATU 10<sup>th</sup> National Congress, 2009

# Shifting to A Green Economy

- We require a Just Transition to a low carbon economy that ensures:
  - Workers and the poor should not be disadvantaged and disproportionately affected
  - Developing countries should not be disadvantaged
  - But we also have to take action **to reduce emissions**
- An opportunity for deeper transformation including redistribution of power and resources

# Shifting to a Green Economy

- Social Growth : top priority must be given to providing space for countries to develop their productive forces in an environmentally sustainable way
  - We still lack adequate water and sanitation systems
  - expand electricity generation based on renewable sources,
  - build safe, low-carbon and affordable public transport systems
- Dealing with climate vulnerability must be integral part of urban and rural development planning exercises

# What is a just Transition?

- Investment in environmentally friendly activities that create decent jobs, that meet standards of health and safety, that promote gender equality, and that are secure
- comprehensive social protection in order to protect the most vulnerable
- Conduct research into the impact of climate change on employment and livelihoods in order to better inform social policies
- Skills development and retraining of workers to ensure that they can be part of the new low-carbon development model

# Decent Jobs and a low carbon economy

- NPG identifies infrastructural investment as a key Job Driver: 250 000 jobs a year in infrastructure (energy, transport, water, communications) and housing through to 2015
- This provides an opportunity to massively expand investment and create jobs through:
  - meeting the need for new kinds of energy production (such as solar, wind and water power),
  - more public transport,
  - more recycling and better waste management
  - renovating and insulating already existing buildings (including homes) with energy saving and carbon reducing devices

# Decent Jobs and a low carbon economy

- These jobs are in almost every case more labour-intensive
- First prize would be for these jobs to be created directly by the state – via existing or new SOE's, and via all levels of government
- Campaign for One Million Climate Jobs?

# Urban and Rural Development under a new growth path

- We require better located and designed human shelter and infrastructure which is climate resistant
- Urban design is a central element of mitigation strategies - perpetuating apartheid spatial patterns and the linked problem of places of residence being far from places of work lead to greater inefficiencies and larger environmental footprints for cities
- The densification of residential accommodation must be balanced by the creation of more public open green spaces which are accessible to all
- Development of new building codes is essential



# Energy

- A two fold strategy is required to reduce our dependence on fossil-fuels BUT at the same time rapidly expand **household access** to electricity
- Expanding household access to electricity must be complimented with reducing levels of household consumption through the construction and retrofitting of energy efficient homes - This includes the fitting of solar water heaters, installation of decent ceiling insulation, and the design of houses to best take advantage of natural light and warmth from the sun

# Energy

- Policies for internalising environmental externalities, demand side management, energy efficiency, renewable energy targets are largely ignored in favour of providing cheap power to industry
- Nuclear energy is too expensive and dangerous- creates less jobs; over-reliance on skills from outside South Africa; danger in maintaining safely (Fukushima) and no knowledge in decommissioning nuclear stations safely
- What we do require is a genuine commitment to review and scale up the existing targets for renewable energy as well as the establishment of new credible and ambitious renewable energy targets

# Energy

- An enabling environment as well as adequate incentives that supports the development of a local renewable energy industry is needed
- Renewable energy has much unrealised potential and technology learning curves, are likely to contribute to significant cost reductions, more jobs and allow SA to take a leading role in the region on renewable energy

# Water

- In adapting to increasing water stress, we have to ensure investment in improved infrastructure to avoid leaking municipal and domestic pipes that account for massive daily wastage
- we need to value and safeguard the natural sources of water – our aquifers, groundwater, water catchment areas, rivers and wetlands
- Require zero tolerance to polluters, zero waste industrial processes thus eliminating the contamination of water by pollutants – significant penalties

# Water

- Rainwater harvesting can be maximised through local systems
- Development of water collecting technologies should be supported for a broader range of water harvesting at local level and can potentially produce tens of thousands of new jobs.

# Transport

- It is estimated that transport in SA amounts to around 12% of all GHGs - 32% of commuters travel to work daily in private cars – the majority being one person one car
- Most obvious intervention to reduce transport emissions is to ramp up the provision of subsidised public transport.
- Massive public investment is required to make this possible, but the spinoffs would be significant not only in respect of reduced carbon emissions, but also in respect of job creation **HOWEVER** public transport, services need to be safer, more frequent, more comfortable, and more affordable

# Transport

- Two key additional job potential job drivers in transport could be:
  - the local manufacture of public transport vehicles that use cleaner fuels
  - and investment in infrastructure for transport of fuels that makes it suitable for movement of cleaner fuels

# Construction

- Non-residential and residential building sector is said to account for around 23% of South Africa's total emissions of which non-residential accounts for 10% of this
- There must be choices of construction design and material choices even with large scale public infrastructure
- In respect to new buildings government, as part of an energy efficiency drive, has introduced a set of standards for new buildings - SANS 204:
  - Its objective is to cut energy demand by 15% by 2015
  - Are there sufficient measures in place to monitor and enforce?



# Construction

- There is more likelihood of “new jobs” being generated in retrofitting because it would amount to accelerated refurbishment above current rates
  - We could introduce retrofitting requirements at the time of building ownership while
  - Government should take the initiative in respect of government buildings
  - Identify clear and achievable time lines for implementation

# Construction

- Institutional arrangements nationally and at local government level should be reviewed
  - return to local government housing construction and maintenance
  - An area of “new employment” but also as solidifying building standards because they operate to reasonable standards of labour decency and skills formation
- This could allow for local community driven housing projects that shift away from the poorly constructed and poorly insulated RDP houses

# Challenges in the Construction Sector

- Construction industry has long been run as a cartel with extensive collusion and a number of companies prosecuted
- Five key players that virtually control the entire value chain from quarrying to materials production to actual construction
- They control key infrastructural and housing projects, primarily with the State

# Conclusion

- A Just Transition with decent jobs at the centre - labour intensive measures are key!
- Immediate intervention to support a State driven and incentivised renewable energy sector
- Support programmes to deal with imminent water stress
- Ramping-up public transport and investment in infrastructure that supports transportation of cleaner fuels
- Construction has the greatest potential for creating labour intensive jobs through the shift towards more environmentally sustainable methods
- Deal with construction oligopoly

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**THANKS**