Industrial policies for a just transition in South Africa’s coal industry

Gaylor Montmasson-Clair, Muhammed Patel & Neva Makgetla
Trade and Industrial Policy Strategies (TIPS)
Overview

• Defining the problem and its causes from an industrial-policy standpoint
• An industrial policy approach to the just transition
• Way forward
The problem

• Decline in demand for coal due to growing internalisation of external costs domestically and internationally and the emergence of new, cheaper power generation technologies

• Immediate impacts along the value chain
   Downsizing in coal-based production (Eskom, Sasol, some metals) and consequently fall in coal prices/production
   Direct impacts: Job losses for workers in mines and electricity plants, severe impact on smaller mines, disinvestment from communities, empowerment issues
   Indirect impacts:
    • Producers of capital goods and logistics suppliers, both local and national, see lower demand
    • Long term decline and joblessness unless able to get into other value chains

• Creative destruction vs preserving existing production

• Requires a just transition – that is, ensuring poor and working people do not bear the costs

• Especially in a democracy
The coal value chain

- The industry is highly concentrated with a handful of firms sharing majority of the market.

Source: Fossil Fuel Foundation, 2011, p. 33

Source: DoE, 2018
The coal value chain

- Locally produced inputs
- Imported inputs
- Coal mines
  - Road freight
  - Transnet rail/port
- Eskom
  - Metal refineries and mines
  - Sasol
  - Municipalities
- Exports
- Other Business
- Households
The coal value chain

- Decline in coal sales by volume:
  - Domestic use – 8% since 2007
  - Exports – 9% since 2012
- Ended run of growth from 1994
The coal value chain
Local demand

Source: DoE, 2018
The coal value chain
Export Market

• Approximately 50% (in value terms) and ~30% (in volume terms) of coal is exported

• Most SA coal exports are destined for India, which takes up about 45% of coal export volumes. India started to become an important market for South African coal in 2007 with increasing coal capacity additions

• Developed countries have been reducing demand for coal
  - Netherlands consumed more than 20% of South Africa’s coal export volumes, in 2011 this went down to approximately 5%.
  - The UK reduction appears sudden, from 17% in 2004 it has averaged 1% since 2009.
  - France, Spain, Denmark, Germany have had similar reductions in coal imports.
  - India announced plans to stop coal imports

• China taken drastic measures to reduce CO2 emissions. Mine closures and reduced operating days
Why can new opportunities not be assumed?

- Slow growth/high unemployment nationally means fewer options for communities and workers
- Differentiated impacts:
  - Big business (mining conglomerates, Eskom, Transnet) have resources, flexibility and information to move out – but small business may be left stranded
  - Workers: mobility depends on education, qualifications, age and opportunity cost of moving industries/homes, knowledge of opportunities
  - Communities: capacity to diversify depends on infrastructure, education and skills, business capacity and proximity to economic hubs

- Power:
  - Risk that stakeholders use economic, political and social power rather than adapting – but lose in the longer run
  - Who has power in the coal mining value chain?
    - Eskom
    - Mining companies (but larger ones can leave)
    - Logistics players – Transnet, road freight
    - Communities (municipal governments, province)
Mining towns
Mining towns

- Population of just over 1 million in main mining centres (twice as high as in 1996)
- Average household income R6000 – it's R5000 nationally
- Around 55% of working-aged adults employed, compared to 40% nationally
- But only one in seven has formal skilled work, compared to one in five nationally
- Impacts:
  - Household incomes, with multiplier to business
  - Closure of suppliers to mines and households
  - Both affect municipal revenues

[Graph showing % of municipal production (GVA) for Gert Sibande, Nkangala, and Limpopo Province for 1995, 2005, 2012, and 2017. Categories include Coal, Electricity, Petrol and Petrochemicals, and Basic Chemicals.]
Workers

• Coal miners:
  - Around 80 000, mostly in Mpumalanga
  - Lost 10 000 jobs since 2013
  - Median pay: R7000/month – other mining: R9000; other formal: R3500
  - Two thirds have matric, but only a quarter have more
  - Median age is 38 – same as other mining but older than others outside public service and domestic
  - Two thirds are union members, and 90% have a retirement fund

• Eskom
  - Total employment of 50 000 – plans substantial downsizing
  - Not clear how many in Mpumalanga
  - Average (not median) pay: R12 000/month
  - Mostly union members with pensions

• Transport workers in Mpumalanga
  - Around 40 000 in total
  - Not clear how many in coal or Transnet (survey found 10 000 in freight)
  - Median formal pay (excludes taxis): R4500/month
  - Median age of 35 compared to 38 in rest of country
  - Around half are union members and have a retirement fund

• Others in value chain:
  - Construction
  - Capital goods production, maintenance and repairs
  - Downstream chemicals

• Coal miners:
  - Around 80 000, mostly in Mpumalanga
  - Lost 10 000 jobs since 2013
  - Median pay: R7000/month – other mining: R9000; other formal: R3500
  - Two thirds have matric, but only a quarter have more
  - Median age is 38 – same as other mining but older than others outside public service and domestic
  - Two thirds are union members, and 90% have a retirement fund

• Eskom
  - Total employment of 50 000 – plans substantial downsizing
  - Not clear how many in Mpumalanga
  - Average (not median) pay: R12 000/month
  - Mostly union members with pensions

• Transport workers in Mpumalanga
  - Around 40 000 in total
  - Not clear how many in coal or Transnet (survey found 10 000 in freight)
  - Median formal pay (excludes taxis): R4500/month
  - Median age of 35 compared to 38 in rest of country
  - Around half are union members and have a retirement fund

• Others in value chain:
  - Construction
  - Capital goods production, maintenance and repairs
  - Downstream chemicals
# Workers

Direct employment in coal industry in South Africa, 2013-2017

<table>
<thead>
<tr>
<th>Province/municipality</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>88,038</td>
<td>86,103</td>
<td>77,748</td>
<td>77,223</td>
<td>82,247</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>75,330</td>
<td>73,675</td>
<td>66,524</td>
<td>66,075</td>
<td>70,364</td>
</tr>
<tr>
<td>Gert Sibande</td>
<td>22,412</td>
<td>21,881</td>
<td>19,728</td>
<td>19,564</td>
<td>20,804</td>
</tr>
<tr>
<td>Albert Luthuli</td>
<td>1,315</td>
<td>1,297</td>
<td>1,180</td>
<td>1,181</td>
<td>1,266</td>
</tr>
<tr>
<td>Pixley Ka Seme</td>
<td>74</td>
<td>72</td>
<td>66</td>
<td>65</td>
<td>69</td>
</tr>
<tr>
<td>Msukaligwa</td>
<td>5,346</td>
<td>5,292</td>
<td>4,835</td>
<td>4,857</td>
<td>5,229</td>
</tr>
<tr>
<td>Lekwa</td>
<td>2,157</td>
<td>2,076</td>
<td>1,848</td>
<td>1,808</td>
<td>1,898</td>
</tr>
<tr>
<td>Mkhondo</td>
<td>1,865</td>
<td>1,860</td>
<td>1,711</td>
<td>1,728</td>
<td>1,872</td>
</tr>
<tr>
<td>Govan Mbeki</td>
<td>11,655</td>
<td>11,284</td>
<td>10,088</td>
<td>9,925</td>
<td>10,470</td>
</tr>
<tr>
<td>Nkangala</td>
<td>52,482</td>
<td>51,371</td>
<td>46,415</td>
<td>46,135</td>
<td>49,162</td>
</tr>
<tr>
<td>Victor Khanye</td>
<td>1,877</td>
<td>1,848</td>
<td>1,679</td>
<td>1,678</td>
<td>1,797</td>
</tr>
<tr>
<td>Emalahleni</td>
<td>36,824</td>
<td>36,002</td>
<td>32,492</td>
<td>32,262</td>
<td>34,342</td>
</tr>
<tr>
<td>Steve Tshwete</td>
<td>13,275</td>
<td>13,024</td>
<td>11,793</td>
<td>11,746</td>
<td>12,542</td>
</tr>
<tr>
<td>Emakhazeni</td>
<td>506</td>
<td>497</td>
<td>451</td>
<td>449</td>
<td>481</td>
</tr>
<tr>
<td>Ehlanzeni</td>
<td>436</td>
<td>423</td>
<td>381</td>
<td>376</td>
<td>398</td>
</tr>
<tr>
<td>Nkomazi</td>
<td>436</td>
<td>423</td>
<td>381</td>
<td>376</td>
<td>398</td>
</tr>
</tbody>
</table>

Source: Quantec
Small business

- In the value chain:
  - Upstream of coal and electricity – maintenance, repairs, adaptation of equipment and production of specialised inputs
  - Construction – how much is outsourced? To whom?
  - Logistics – how many small companies are actually involved?

- Companies that depend on mine and electricity labour force
  - Retail,
  - Food and clothing producers,
  - Entertainment,
  - Housing construction,
  - Others?
What does not work?

• Rescue packages for companies that enable them to remain longer in coal VC rather than finding new opportunities
• Ignoring the problem and hoping it will go away
• Incoherent state actions at national, provincial and local levels
• Ignoring stakeholders' imperatives and insights – large and small business, workers, communities
• Overstating likely benefits and understating risks
• Over-engineering solutions
Fossil fuel subsidies

2015 subsidies

- SA ranks
  - 12th in terms of subsidies as % of GDP
  - 23rd in terms of per-capita subsidies
- Mostly due externalities
- Makes SA very vulnerable to external sanctions and market trends
- Are benefits of coal worth more?

Source: IMF
Active labour market policies

• Focused on helping individuals find new opportunities
• Inputs:
  - Information about possibilities
  - Training
  - Support for new and existing small business (incubators, mentoring, training, finance, etc.)
• Assumption that blockages are essentially information and skills and that people are mobile (geographically, intellectually and/or functionally)
• Usually works only if the rest of the economy is growing well

Necessary, not sufficient
Regional development strategies

- Aim to diversify into new clusters oriented toward sustainable demand, building on existing strengths but outside of mining and energy
  - Identify where can leverage national/international value chains – where is demand?
  - What are strengths in terms of
    - Business capacity
    - Workforce skills and experience
    - Support institutions (universities, research centres, financial and development agencies, incubators, etc.)
    - Infrastructure – logistics, water, energy, waste disposal
  - Inevitably risky – but unavoidable

- Policy instruments
  - Information on opportunities
  - Infrastructure provision
  - Skills development
  - Marketing support (producer co-ops? Cluster institutions? Agencies?)
  - Industrial finance
  - Leverage BBBEE

- Requires coordination across the state
Way forward

• Employment vulnerability assessment (NEVA) and resilience plans (SJRPs)
  ➢ Understanding of the impact and timeframes
  ➢ Stakeholder consultation and engagement
  ➢ Soft-landing strategies

• Diversification strategies
  ➢ Leveraging skills
  ➢ Existing infrastructure (transport, energy, ICT)
  ➢ Proximity to economic hub / energy demand
  ➢ Existing supply chains
  ➢ New economic opportunities, e.g. green economy transition, but not necessarily in the energy sector
Trade & Industrial Policy Strategies

Supporting policy development through research and dialogue

www.tips.org.za

Gaylor Montmasson-Clair
Senior Economist: Sustainable Growth

gaylor@tips.org.za
+27 12 433 9340