

# Coal transitions: risks and opportunities

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Climate  
Transparency



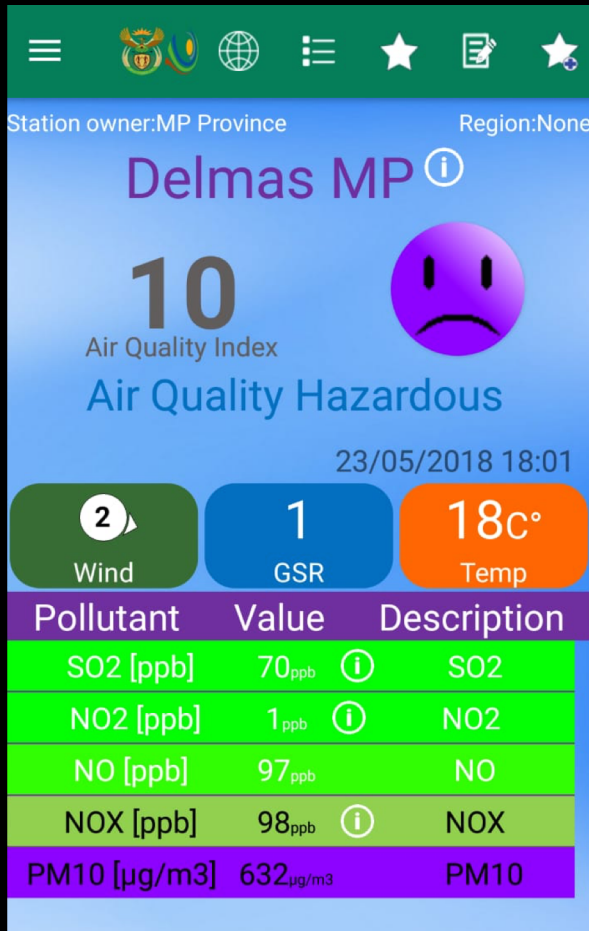
**SA-TIED**  
Southern Africa – Towards Inclusive Economic Development

# South Africa's national development challenge: Energy transition must support developmental objectives

- Unemployment at 27.6% or 38%
- Youth (15–24 years) unemployment is 55% (StatsSA, 2019)
- More than 55% of people live in poverty
- 25% live in extreme poverty – meaning they cannot meet their basic food needs (StatsSA, 2017)
- 78% of South African Grade 4 children cannot read for meaning in any language (PIRLS, 2016)
- Addressing constraints to growth will therefore be an integral component of any just transition plan for South Africa.

- **education and skills deficits:** the poor-quality education system and lack of skills development alongside spatial patterns that exclude people from participating in the economy;
- **lack of integrated industrial policy:** deindustrialisation and low growth in labour-intensive sectors, lack of innovation and growth in new sectors;
- **infrastructure constraints:** poor infrastructure, including poor transport links, water provision, and energy constraints.

# Mpumalanga's development challenges

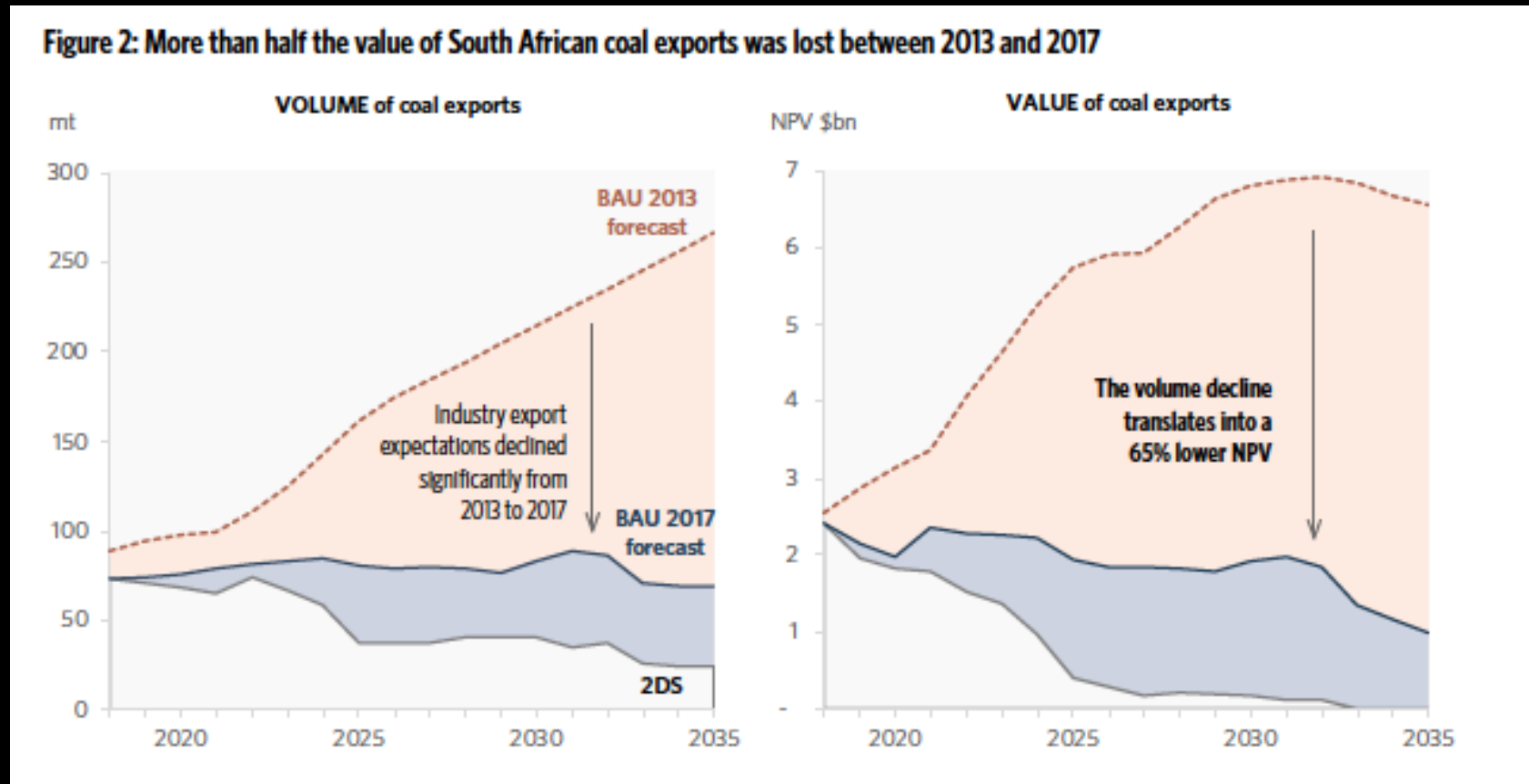


- Unemployment levels are above the national average at 34.2% and 43% (StatsSA, 2019).
- Protests
- Mining-affected communities
- Air & water pollution
- Competition for land
- Pullenshope – house bonds



# Why plan? Coal transitions are already happening

- Export risks
- Closures are inevitable



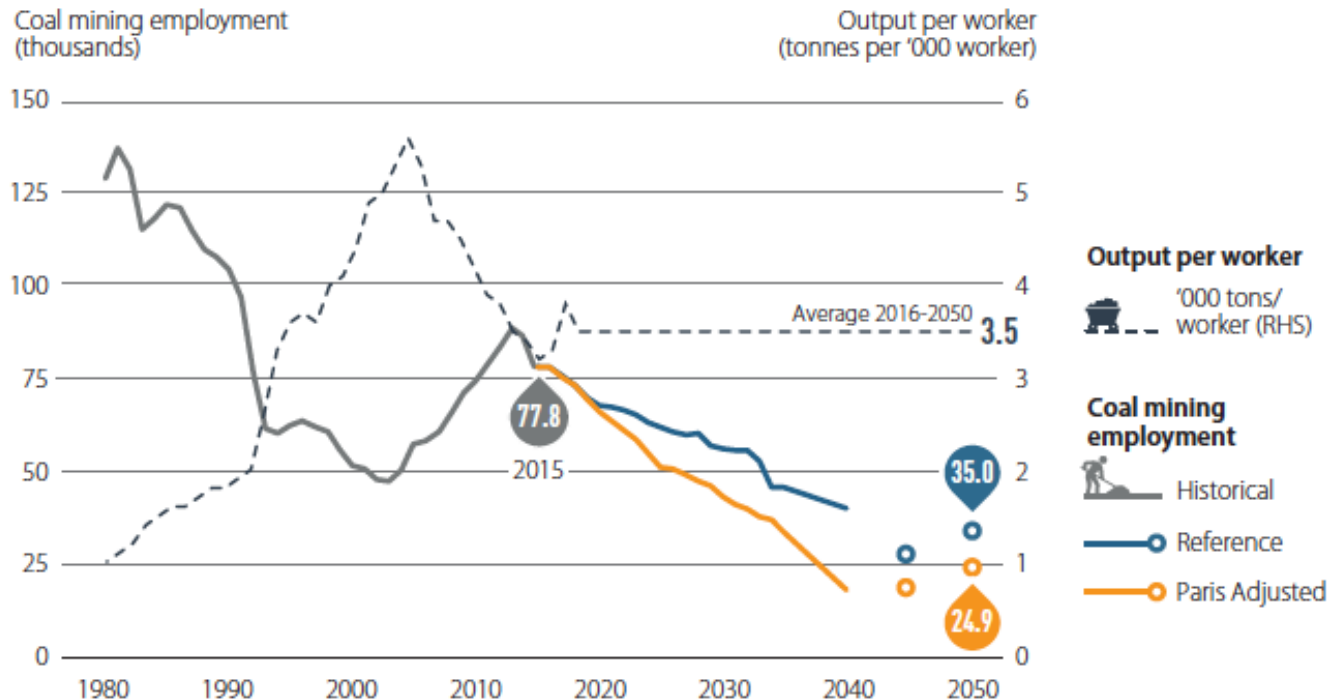
[From Huxham et al 'Understanding the impact of a low carbon transition on South Africa'](#)

Coal dependent regions are not always prepared for the pace and scale of change that they face

State failure to provide transition support is also a policy choice

# The transition is coming - how do we make sure it is just and fair?

Figure 5: Historical (1970-2015) and projected (2016-2050) coal mining employment



We base our interpretation of what constitutes a just transition on the ILO guidelines (ILO, 2015), which take at their core that a just transition is one that considers the interrelated economic, social, and environmental dimensions of sustainable development. The guidelines state that:

→ “coherent policies across the economic, environmental, social, education/training and labour portfolios need to provide an enabling environment for enterprises, workers, investors and consumers to embrace and drive the transition towards environmentally sustainable and inclusive economies and societies.”

→ “These coherent policies also need to provide a just transition framework for all to promote the creation of more decent jobs, including as appropriate: anticipating impacts on employment, adequate and sustainable social protection for job losses and displacement, skills development and social dialogue, including the effective exercise of the right to organize and bargain collectively.” And that

# What is a just transition?

→ “The following elements constitute a basic framework to address the challenges of a just transition for all: (1) The greening of economies in the context of sustainable development and poverty eradication will require a country-specific mix of macroeconomic, industrial, sectoral and labour policies that create an enabling environment for sustainable enterprises to prosper and create decent work opportunities by mobilizing and directing public and private investment towards environmentally sustainable activities. The aim should be to generate decent jobs all along the supply chain, in dynamic, high value added sectors which stimulate the upgrading of jobs and skills as well as job creation and improved productivity in more labour-intensive industries that offer employment opportunities on a wide scale.” (ILO: 2015).

# Protecting livelihoods and creating decent work

- Understanding the labour market
  - Sector Job Resilience Plans
- Setting a timeline for coal phase down
  - IRP in context of NDC and long-term goals
- Providing a bridge to pension or offering voluntary packages.
  - who pays? How much?
- Supporting workers who have appropriate skills willing to retrain to take on alternative roles in the company.
- Developing regional worker transfer programmes to support the direct transfer and on-the-job retraining of workers to move to an alternative local job. - who pays? How can this be coordinated?
- Redeploying: offering employees who may struggle to find work in other roles or sectors the option to transfer their skills to alternative coal-based sites with the company
- Establishing integrated multi-purpose retraining programmes
  - who coordinates SLPs, SED/ED spend, LED initiatives?



**COAL TRANSITIONS**

[www.coaltransitions.org](http://www.coaltransitions.org)

# Building an inclusive and resilient economy

For coal regions looking to build their economic resilience and transition beyond coal, the Coal Transitions project identified a number of strategies that can be effective if well executed. These include:

- **“Related diversification”**: developing industries that are related to existing economic activities and industries but do not depend on coal.
- **“Smart specialisation”**: supporting the growth of economic activities that build on an assessment of the region’s strengths and competitive advantages. In coal regions, this could include existing power, rail or port infrastructure, land availability, cultural and industrial heritage, skills of the local workforce, existing industries with growth potential, etc.
- **Strengthening of local entrepreneurial networks**: creating or strengthening networks between higher education and training organisations, local companies and entrepreneurs, local government and organised labour, in order to identify and support the growth of suitable activities.
- **Improvement of local infrastructure**: to boost the local economic attractiveness of the region, increase opportunities for economic linkages to other zones of economic activity and employment, increase the productivity and growth potential of local industries, and create opportunities for former coal workers to stay in their regions.
- **Improvement of “soft attractiveness factors”**: to support re-investment in the area, underpin land value and thus the wealth of the local community, and limit or reverse demographic outflows.
- **Location of public sector activities in the region**: to mitigate demographic decline, provide additional economic demand for the region, and support the development of new strategic industries.
- **Location of innovation or energy transition projects in the region**: often regions with a strong link to the energy sector are keen to retain this as part of their local identity, and they may possess the infrastructure to do so.

Source: Campbell and Coenen, 2017

Coenen &  
Campbell,  
2018



## 1 Transition pathways and decent work

Worker transition schemes for Eskom and coal mining employees	Skilled workforce, economic justice	See Box 2 above for an outline of process	Eskom/tariffs, mining houses, grant funding, national fiscus	Contextual factors on work-force age, skills, options/costs of early retirement, redeployment, retraining	Workers, Eskom and mining houses, other Industrial players, CSMI <sup>13</sup>
Workplace placement schemes/ support	Assisting unemployed youth to obtain skills for job interviews, practice, placements	<a href="http://harambee.co.za/">http://harambee.co.za/</a> National Business Initiative's employability scheme	Grant/philanthropic funding, Youth wage subsidy scheme, Other		Unemployed youth, companies, unions, National Business Initiative

## 2 Location of innovation or energy transition projects; related diversification

New utility-scale energy infrastructure in former mining areas	Leverage existing transmission infrastructure and expertise	Geographical procurement of utility-scale renewable energy in former mining areas (coal and gold) <sup>14</sup>	Innovation in REIPPPP <sup>15</sup> procurement rules required for locational allocation. Potential for municipal generation/ procurement. Commercial finance. Development Finance Institutions (DFIs).	Optimal capacity allocation, jobs created per GWh, skills needed, potential or pathways for existing power stations workers to migrate into new plants	Municipalities, SAREC <sup>16</sup> , DoE <sup>17</sup> , banks, National Treasury
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## 3 Improvement of local infrastructure; location of innovation or energy transition projects; related diversification

Residential rooftop solar PV ownership with feed-in tariffs	Income generation for low-income households and social ownership model	Feed-in tariffs provided for low-income households to sell electricity into the grid <sup>18</sup>	Institutional Innovation in energy markets at municipal/distributor level. Developmental finance for capital expenditure. Distributor subsidy/feed-in tariffs.	Cost-benefit, socio-economic and risk analyses. Technical/grid feasibility assessments.	Municipalities, Eskom, NERSA <sup>19</sup> , DoE, National Treasury
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4 **"Smart specialisation"**: supporting the growth of economic activities that build on an assessment of the region's strengths and competitive advantages. In coal regions, this could include existing power, rail or port infrastructure, land availability, cultural and industrial heritage, skills of the local workforce, existing industries with growth potential, etc.

**"Related diversification"**: developing industries that are related to existing economic activities and industries but do not depend on coal

Renewable energy assembly and manufacturing	Paris-compatible pathway requires very rapid and high roll-out of renewable energy: 172 GW from 2020–2050. Leverage skilled workforce	No extant example in Mpumalanga, existing assembly and component capacity developed during REIPPPP but some closed/decreased after REIPPPP procurement hiatus	Procurement rule change to promote geographical localisation Commercial finance DFIs/concessional	GW allocation, jobs/GWh, skills needed, potential or pathways for existing power stations workers	SAREC, DTT <sup>20</sup> , DoE, Provincial Trade and Economic agencies
Other manufacturing	Leverage Mpumalanga's close links to markets, good transport links, and experienced industrial workforce	Need research on place-based opportunities for Mpumalanga and potential competitive advantage in existing and new sectors  Increased support for existing manufacturing capabilities	Concessional/ developmental and commercial finance, dependent on sector analyses	Detailed analysis of economic, innovative and scientific potential <sup>21</sup> of different sectors, and need and options for incentives.	DTI, TIPS <sup>22</sup> , IDTT <sup>23</sup> , Provincial trade and development, GreenCape
Agriculture and agro-processing	Leverage high potential arable land in Mpumalanga <sup>24</sup> Increased water availability as plants close	Bio and fibre crops on rehabilitated land Agriculture value chain assessments and agro-processing hub (Nkomazti)	Concessional, DFI and commercial finance, industrial policy incentives	Detailed analysis of economic potential, required capabilities, investments and incentives (Dube et al., 2018)	Agbiz <sup>25</sup> , IDTT/ CCRED <sup>26</sup> , Agri-SA <sup>27</sup> , DTI, TIPS, Minerals to metals (UCT), MEGA <sup>28</sup>

- [From Burton, Marquard, McCall, 'Socioeconomic considerations for a Paris-compatible coal transition'](#)



## 5 Improvement of local infrastructure; improvement of "soft attractiveness" factors; location of public sector activities in the region; smart specialisation

Education and literacy	Address low literacy rates and long-term skills deficits	Teacher training for literacy; <sup>29</sup> USAID Reading readiness programme ECD programmes Community college project University campuses	Grant funding Social and Labour Plans Socio-economic development spend from new RE plants in region Department of Higher Education and Training	Role of existing educational institutions and existing barriers	University of Pretoria and TUT <sup>30</sup> Emalahleni campuses, Nkangala TVET <sup>31</sup>
Rehabilitation of mining land, catchment clearing/ ecological services	Legal requirement for mining-affected communities, address water scarcity and pollution etc.  Utilise rehab funds for large-scale employment of local communities  Potential for commercial opportunities in degraded land and agriculture	Mine Water Co-ordinating Body Green Engine Room Biofibre economy on degraded land Catchment clearing and ecological systems services for employment Grounded <sup>32</sup>	Mining rehab funds Concessional/DFI Commercial opportunities		Mine Water Coordinating Body, mining companies, Minerals Council, SETAs municipalities, unions, rehabilitation firms
Food security	Small-scale poultry and agriculture. <sup>33</sup>		Grant funding		
Integrated transport systems and spatial planning	Just transition means more than just a technology transition. Public transport is key to meeting mitigation and economic justice goals		Government expenditure DFI Commercial		

# What is needed?

- Support for national and sub-national entities to engage in ongoing social dialogue, lessons from elsewhere on what has been done, why it has worked/failed
- Fund and create institutions to explore context-specific vulnerabilities and economic resilience opportunities in coal dependent areas
- Undertake macroeconomic analysis of the effects of climate policies and supplement with sector-specific and microeconomic assessments of local impacts on workers and communities, as well as new possibilities
- Political and economic analysis of who bears the costs and benefits of the transition, contextual factors defining potential interventions
- the role of finance in mitigating the impacts of a disorderly transition are important areas of further research
- Reallocation of resources (eg from fossil fuel subsidy reform)

# Thank you

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