ADDICTED TO CARBON?
SOUTH AFRICA’S LOVE AFFAIR WITH COAL

By Dr. Neil Overy
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INTRODUCTION

We all know that US President Trump ‘Digs Coal’, but did you know that South Africa’s President, Cyril Ramaphosa, also ‘Digs Coal’? Ramaphosa, who has morphed from Secretary General of the National Union of Mineworkers to wealthy mining magnate, and now President, stated during the February 2018 State of the Nation address that mining was South Africa’s ‘sunrise industry’ which would drive the economy forward.

That coal, which is central to this ‘sunrise’, is supported by the massive investment currently taking place in new coal-fired power stations in South Africa. Two, Medupi (4764 MW) and Kusile (4800 MW), are nearing completion at a combined cost approaching R450bn ($30bn), while two more, Thabametsi (630 MW) and Khanyisa (300 MW), selected out of no less than 12 proposed new coal plants, are in the planning stages at an estimated cost of R40bn ($2.6bn). And in early September, news reports indicated that another 4600 MW coal-fired power station was to be built within six years with Chinese backing.

These new developments must be seen within the context of a country that has always been addicted to coal. This addiction can be traced to the discovery of diamonds, gold and easily accessible coal in South Africa in the later-half of the nineteenth century which led to the emergence of what has been called the ‘minerals-energy complex’ (MEC). This MEC was not just about coal, however, as South Africa has always been rich in mineral resources. South Africa has the world’s largest natural reserves of gold, platinum-group metals, chrome ore, and manganese ore and the world’s second-largest reserves of vanadium, titanium and zirconium. The importance of coal, however, was central as the MEC was founded on the distribution of centralised coal-based energy as cheaply as possible to a small group of energy intensive users, largely made up of mining houses. Its formation created an energy landscape that continues to be dominated by a single, centralised state-owned power utility, Eskom, which prioritises the needs of a select group of energy intensive users.

RESPONSIBLE FOR GENERATING 95% OF SOUTH AFRICA’S ELECTRICITY, ESkom does so by burning vast quantities of coal in its fleet of 15 coal-fired power stations which are fed from South Africa’s abundant coal mines. In fact, no less than 90% of all electricity generated by Eskom comes from its coal-fired power stations.

It’s no surprise then that South Africans, per capita, consume more CO2eq than the average person in the G20. This does not mean, however, that all South Africans access and use electricity equally. Many South Africans (approximately 14%) still lack access to electricity, while many that do (upwards of 40% more) experience energy poverty because they cannot afford to pay for electricity. The energy poverty that many South Africans experience is largely the result of coal. Eskom, with the government’s approval, has more than tripled the price of electricity since 2004, partly because of corruption within Eskom (in part related to artificially inflated coal prices), but mostly because of catastrophic cost increases in the construction of Medupi and Kusile. Latest estimates indicate that the power stations will cost R200bn ($13bn) more than was planned. Things are likely to get worse with the construction of Thabametsi and Khanyisa, as recent research from the University of Cape Town shows that they will cost South Africans R20bn ($1.3bn) more over their lifetimes than renewables.

8. 8 Energy poverty is defined as either not having grid access, or having access but not being able to afford to purchase sufficient electricity. See, S. Mbwane, ‘Investigating household energy poverty in South Africa by using undimensional and multidimensional measures’, Energy Research Centre, University of Cape Town, 2017, p. 2.
In the face of the climate crisis and the cheaper price of renewable energy, how do we explain South Africa’s continued addiction to it? Glen Tyler, South African Team Leader for the global environmental movement 350.org, argues that powerful vested interests within the mining sector and in government continue to push coal. Vested interests within the mining sector come from both established mining companies, such as BHP Billiton and Anglo American, and from emerging mining companies which are taking advantage of South Africa’s Black Economic Empowerment (BEE) legislation to establish themselves in coal mining. Official government policy in South Africa favours coal mining. The country’s plan for energy generation up until 2030 was updated just last month and includes new coal-fired power stations and places an entirely artificial limit on renewable generation. Ahmed Mokgopo, divestment campaigner at 350.org, states that the promotion of coal at the cost of renewables ‘is politically motivated … there is a lot of money still to be made from coal in Africa and I think that’s what is driving South Africa’s increased dependence on coal’. Macoma Lekalakala, Director of Earthlife Africa, a leading environmental rights NGO in South Africa, agrees, ‘it is the political elite in the country who are investing in coal … the people who are benefitting mostly, it’s the political elite’ she says.

Bafana Hlatshwayo of the Middleburg Environmental Justice Network (MEJN), a community group that campaigns against mining in the Highveld (the coal mining area of South Africa), is more blunt, simply stating that ‘corruption’ is the sole reason why coal continues to be pursued in South Africa. There is certainly plenty of evidence to indicate that politically connected people are making a great deal of money from coal in South Africa.

Whatever the reason for the South African government’s love affair with coal, one thing is certain - coal mining and the burning of coal for electricity, has had, and continues to have, devastatingly negative social and environmental consequences for many South Africans. It’s no exaggeration to say that it poisons the air, the water, the soil, and the bodies of those that live and work within South Africa’s coal mining areas.
THE NEGATIVE IMPACTS OF COAL MINING IN SOUTH AFRICA

According to the Minerals Council of South Africa, there are 25 major coal mines in the country. Of these, 21 are located Mpumalanga Province and account for over 83% of all coal production. One specific part of Mpumalanga, called Ekurhuleni (previously Witbank), is home to the majority of these mines, along with 12 of Eskom’s coal-fired power stations. This specific area is the focus of this short research report because it is illustrative of the types of problems that coal mining creates in South Africa, and because it is where civil society is most active in opposing the negative impacts of coal mining.

In 2013 a team of scientists from the European Union and the South African Council for Geoscience reported that the air in Ekurhuleni was the most polluted in the world.\textsuperscript{19} The area is home to 3.6 million people, upwards of 2200 of who die each year due to air pollution caused by the burning of coal, while tens of thousands more suffer from breathing polluted air.\textsuperscript{20} Zanele Msibi a member of the pressure group Women Affected by Mining United in Action (WAMUA) says 'we are no-longer healthy, we are always sick with sinus problems because of the air pollution'.\textsuperscript{21} Asthma, bronchitis, and eye problems are also common in the area, which is overwhelmed with particulate matter from coal mines and fly ash from Eskom’s coal-fired power stations.
Coal mining in South Africa also results in significant water pollution in an already water scarce country (South Africa is the 30th driest country in the world). Experts estimate that due to weaknesses in the enforcement of mine closure legislation, there are over 6,000 abandoned mines in South Africa, a significant number of which are abandoned coal mines. These mines become a source for Acid Mine Drainage (AMD) which is causing havoc among people living around the abandoned mines. As the acid (which also contains heavy metals) leeches into rivers and groundwater it pollutes them, and as it leeches into the soil it makes it too toxic to grow food. Pinky Langa from WAMUA describes ADM as a ‘very, very serious problem in our communities’. She states that ‘plants don’t grow and biodiversity has died. You can’t find anything growing here’. This is a serious problem for many people who have previously relied upon subsistence farming.

Msibi notes that signs have been put up warning people not to drink tap water, but she asks ‘what are people supposed to drink when they cannot afford to buy bottled water?’ She observes that kidney problems are common in her community. AMD is also having a significantly negative impact of the health of rivers and watercourses in South Africa. Research indicates that the Olifants river catchment which flows through the major coal mining area of South Africa is severely degraded. Matthews Hlabane from Mining Affected Communities United in Action (MACUA), which represents over 100 different communities via 70 affiliated organisations, observes that coal mining ‘destroys all the water sources and all the rivers get contaminated’. AMD is so bad that commercial farmers in the area have to spend more on fertilizers and lime to grow their crops, which pushes food prices up, compounding the problem for poorer community members. Mpumalanga, the province which contains 46% of South Africa’s high potential arable soil, is now subject to coal mining or coal prospecting applications on 61% of its land which, experts warn will lead to immense pressure on food production. Hlabane also draws attention to how mining ‘expels’ people from land on which they previously farmed ‘pushing them into positions of dependency and destitution’. Lekalakala argues that people’s cultural and heritage rights are being violated’ by coal mines as they are often positioned on traditional grave sites. She describes this as a ‘big, big issue’ in South Africa.

Aside from the pollution of water sources, the sheer amount of water used by Eskom threatens South Africa’s water security. Eskom already uses over 10,000 litres of water a second, and serious concerns have been raised about the country’s ability to meet the water requirements of new coal power stations. Billions of rands have already been spent on water augmentation schemes to bring in water from hundreds of kilometres away just to ensure that Medupi and Kusile can operate. Ironically, drought caused by climate change is likely to be a key feature of life in the Highveld in years to come, exacerbating an already serious problem. Msibi cautions that ‘it will end up that communities will no longer have water’.
In 2008 the South African Auditor-General stated that there were 6000 abandoned and unrehabilitated mines in the country. Ten years later it is more than likely that this figure has risen and, while it is not known how many of these mines are coal mines, there are undoubtedly hundreds of abandoned coal mines in South Africa. This failure to properly rehabilitate mines leads to a host of other environmental and social problems. Unfenced tailing ponds are attractive to children on hot summer days and numerous children are to be found swimming in them, which results in serious skin problems.
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Sinkhole near Emalahleni, Mpumalanga, 2016 (Image: Neil Overy)
Unfenced spoil heaps and discard dumps also become playgrounds for children because there are no recreation centres, children climb and they get lost and sometimes they never get found. Sometimes they fall into the pits’ says Msibi, in reference to the hundreds of sinkholes, some still burning, that are dotted around the Highveld.
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In addition, because discard dumps are unfenced, unemployed community members scavenge coal either to sell to other community members, or to use themselves (artisanal mining). These so-called ‘zama-zamas’ risk their lives mining for coal, and it is thought that hundreds of people die each year, but it’s hard to know as their bodies are rarely recovered after rock-falls. Some of the coal that zama-zamas use or sell is toxic, and ‘people burn the coal and die as a result’ says Hlabane.

In a cruel irony, many of the people who live in the coal fields areas are ‘rendered unemployable’ because of the pollution they endure. Hlabane recounts how local men cannot get jobs at the coal mines because they fail fitness tests because they are ‘sick from all the pollution’. This exacerbates the already chronic levels of employment (around 40%) amongst those who live in the Highveld.

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It is vital to point out that the burden of these environmental and social problems falls most heavily on women in the form of unpaid labour and abuse. It’s women that make up the majority of zama-zamas; it’s women who shoulder the burden of child care; it’s women who are responsible for the repair and constant cleaning of homes due to blasting and coal dust; it’s women who are experiencing domestic abuse at the hands of their unemployed husbands; it’s women who are raped; it’s women who are largely excluded from mine employment opportunities; it’s women who manage family ill-health caused by pollution and mining, and it’s women who are forced into prostitution in a desperate attempt to provide for their families. 33

The response of the South African government to these problems has been almost entirely negligent. In terms of air quality, the government identified the primary coal-mining areas as a ‘Priority Area’ in 2007 and introduced an ‘Air Quality Management Plan’ in 2012, but experts state that there has been ‘no meaningful progress’ since 2007. Tim Lloyd from the Centre for Environmental Rights (CER), a group which advances environmental rights in South Africa on the basis that section 24 of the South African Constitution guarantees citizens a healthy environment, describes the air quality as ‘dire’, noting that ‘if anything, it is getting worse’.34 While South African air quality standards are already well below those recommended by the World Health Organisation, even these standards are not met. In 2014, the South African Department of Environmental Affairs (DEA) granted Eskom a five-year exclusion from having to meet Minimum Emission Standards (MES) from its coal-fired power stations, and Eskom is currently applying to the department for further five-year exclusion, up until 2024. Thomas Mnguni, campaigner at environmental justice group GroundWork, states that ‘allowing Eskom to exceed the MES is at the expense of the health of the South African people’.35

While the government stated in 2016 that it would cost R12bn to deal with AMD, this was exclusively related to AMD from abandoned gold mines, and to date no concrete plans have been announced for coal-mining areas.36 The DEA published a new draft set of regulations in November 2017 governing the closure and rehabilitation of mines, but these have been condemned by a number of environmental groups in South Africa as being entirely inadequate.37
The most significant obstacle facing mine rehabilitation is an absence of political will, and it is this absence that sees the deleterious consequences of coal-mining in South Africa continues largely unabated. Environmental regulations as they relate to coal mining are supposed to be enforced by a number of different national government institutions including the DEA, the Department of Mineral Resources (DMR) and the Department of Water Affairs. Chief amongst them where compliance is concerned is the DMR. However, environmental activists in non-profit organisations and representatives of community members largely agree that the DEA, and the DMR in particular, act more as agents for the mining industry than protectors of the social and environmental rights enshrined in South Africa’s Constitution. For their part, an overwhelming amount of evidence suggests that the general attitude of most private mining companies, South African and foreign owned, is that if they can get away with it, they’ll ignore regulations.\(^{38}\) As Lekalakala observes, ‘they only look at their own interests and not the interests of the people, not the interests of the environment, or of the planet, because all they do is amass profits for themselves and they don’t care about anybody ... the externalised costs are not even thought about, it’s just about getting more money into their pockets’.

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Tyler from 350.org states that there is ‘serial non-compliance’ with environmental regulations, while Msibi from WAMUA states that ‘the DMR are ignorant and they do not care … they are the ones giving the mines the license to operate and they are not in favour of the community. They won’t listen to us’. Her sentiments are echoed by Hlabane from MACUA who states that DMR ‘don’t want to listen to communities. All they do is spending their time with mining companies; all they do is frustrated communities [and] cover for mining companies’. The accusation that DMR employees are in collusion with mining companies came to a head in Mpumalanga this month when Gwede Mantashe, the Minister for Mineral Resources, closed the entire DMR provincial office due to allegations of rampant corruption, some of which relate to the issuing of mining licences in specially protected areas (the Limpopo DMR provincial office has been closed for three months due to corruption).39

Even in circumstances where the DMR tries to uphold environmental standards it is often thwarted by a lack of capacity in terms of the skills necessary to enforce compliance.40 For example, in 2015, there were only five officials assigned by the DMR to ensure environmental compliance by over 1000 mines in Mpumalanga province.41

The problem is compounded because the power to hold mining companies accountable is vested almost entirely at central government level within the DMR. South Africa is split into nine provinces, which are then subdivided into municipalities. While both provincial governments and municipalities have responsibilities in regard to environmental and social issues, neither level of government is sufficiently resourced, both in terms of finance and capacity, to act meaningfully against transgressions. In addition, their willingness to act is constrained by issues of political loyalty with officials from provincial and municipal government often being reluctant to challenge decisions taken at national level. The extent to which decisions around the regulation of mining are centralised in South Africa is perfectly illustrated by a recent change to the laws governing environmental compliance. In 2014 the ‘One Environmental System’ came into force in South Africa. This ‘system’ basically passed responsibility for environmental authorisations and monitoring of mining (via the National Environmental Management Act (NEMA)) from the DEA to the DMR. This move, which was greeted with approval from the mining industry, was met with dismay from civil society groups who argue that it creates a conflict of interest within DMR which is now mandated to both promote mining and provide oversight of mining activities.42 The impact of this legislative change was demonstrated last year when the Cape High Court found in favour of a mining company which had been raided by the DEA for alleged breaches of NEMA. The Court found that the raid was illegal because the DEA no-longer had jurisdiction to enforce NEMA in regard to mining.43

The apparent reluctance of the South African government to address the social and environmental ills of the coal industry, together with its determination to push ahead with yet more coal-fired power stations is testament to the historic power of the MEC in South Africa. It should be briefly pointed out here, that this very same power also ensures that environmental and social ills remain across the entire mining sector in South Africa. From the extensive and unchecked environmental damage being done to the West Coast of South Africa due to the mining of heavy mineral sands, to the murder by the South African police force of 34 miners striking for better housing in 2012 (the Marikana Massacre), the power of the MEC is felt.44
COMMUNITIES AND CIVIL SOCIETY FIGHTS BACK

Despite this power, however, communities and environmental organisations are fighting back. A growing number of community-based organisations like MACUA, WAMUA and the MEJN work tirelessly to empower community members about their wider Constitutional rights, but also the rights they have vis-à-vis mining companies that operate in their communities. They also inform them of the dangers that coal mining presents, and offer means by which to counter some of these dangers. For example, WAMUA undertakes regular training workshops with women who live in mining areas which deal with issues of mining waste, gender-based violence, environmental rights, and basic human rights. As Langa says, ‘we want women to start having a voice, because women have been silenced’. MACUA undertakes similar rights-based education programmes and has developed an agro-economy programme with local communities to create food and employment, and begin the process of rehabilitating polluted land. These organisations also educate community members about the benefits of renewable energy as a means by which to break South Africa’s dependency on coal.

There is little doubt that the empowerment of communities who live and work around mines is beginning to have some impact in South Africa. Last year MACUA, WAMUA and the Mining and Environmental Justice Community Network of South Africa (MEJCON) took the government to court for excluding mining affected communities from negotiations about revisions that were to be made to the Mining Charter. The Mining Charter sets out, among other things, the obligations mining companies have to the communities within which they operate. The court ruled against the government, compelling it to engage with community members around proposed changes to the Charter. While it is difficult to attribute directly to community efforts alone, a significant revision to the Charter has been gazetted which advantages mining affected communities over mining companies. The revised Charter now compels companies to publish their social and economic commitments to the communities within which they operate. Previously such information was not made public, meaning that it was impossible for communities to hold mining companies accountable for the delivery of commitments made.

For their part, environmental non-profits engage in a multitude of ways. Along with training community members, the CER uses strategic litigation to try and ensure compliance with environmental standards. In recent years it has had some notable successes. Last year the CER supported Earthlife Africa in taking the Minister of Environmental Affairs to court for not considering the climate change impacts of Thabametsi when approving its license. The High Court ruled in Earthlife Africa’s favour, overturning the approval given to Thabametsi.


In recent weeks, two significant victories against mining have taken place in South Africa. On the 25th of October the highest court in South Africa found that having a mining right does not surpass the rights of those who currently occupy land where mining is proposed. This ruling is potentially very significant in that it may give community members throughout South Africa the right to say no to mining developments. Two days earlier, in another victory, the High Court in Pretoria prevented the government from trying to change the boundaries of an environmentally sensitive protected area so that it could be mined for coal.

350. org is currently engaged in a national campaign, called #ThumaMina, which is calling on South Africans to protest against tax-payers money being used by the Development Bank of South Africa to part fund Thabametsi. In addition, it is putting pressure on private banks, both in South Africa and overseas to withdraw funding from new coal in South Africa. Lekalakala observes that private banks are a serious problem in South Africa because they continue to fund coal. ‘The banks are complicit in the environmental devastation of the country’, she says. This issue is being taken up by Fossil Free South Africa which, in partnership with a number of other environmental NGOs, is pushing for institutions and companies to stop investing in fossil fuels.

There have been some notable successes. As from 2018 one of South Africa’s largest banks, Nedbank, has agreed to no-longer fund new coal power stations anywhere in the world. However, it has indicated that it will continue to fund Thabametsi and Khanyisa. In late September 2018, the South African Standard Bank was rumoured to be about to pull its funding from both Thabametsi and Khanyisa, although this has yet to be confirmed. Industry insiders indicate that if Standard Bank withdraws its funding, it is likely that other South African banks will follow suit. Two other South African banks who are potential lenders to the projects, ABSA and Rand Merchant Bank, were said to still be considering their respective positions. The leading developer of the Thabametsi power station, Marubeni of Japan, recently announced that it would no-longer build new coal-fired power stations. Sadly, however, the company remains fully committed to Thabametsi.

Earthlife Africa, Greenpeace Africa, the CER and GroundWork have joined forced to create the national ‘Life After Coal / ImpiloNgaphandleKwamalahle’ campaign which is premised on the basic assumption that coal is obsolete, for it fails to meet the pressing needs of climate change and is no-longer the cheapest way to generate electricity, and in its stead renewable energy must be promoted.
THE PROMISE OF RENEWABLE ENERGY

The push for renewable energy is taking place in South Africa within the rapidly emerging discourse of a Just Energy Transition (JET) which looks to steer society towards a clean, low-carbon future in a way that is sensitive to issues of equity and justice. A JET assumes that jobs lost in the South African coal sector (mines and power stations) will be compensated for with decent jobs in the renewables sector (manufacturing, installation and maintenance), or in the rehabilitation of polluted land and water courses. It also assumes that communities in South Africa will be able to say no to mining, including coal mining, in the future.

The challenges to realising a JET in South Africa are significant, but not insurmountable. ‘When you talk about renewable energy, communities think that you are taking their jobs away from them’, says Msibi, demonstrating that much more needs to be done to convince labour unions and communities that new jobs can be created. But at Lloyd notes the ‘green and red … share more in common than what divides us’. More work also needs to be done to demonstrate how control over the generation and distribution of electricity in South Africa can be democratised – what should happen to Eskom? What role will social ownership play, etc.? In terms of the right of communities to say no to mining, South Africans await the decision of the High Court in Pretoria which is currently considering the right of a community in the Eastern Cape province of South Africa to say no to mining. If the court finds in the community’s favour, a fundamental shift will take place in the dynamics of mining in South Africa.

And it is a fundamental shift in thinking that is needed for South Africa to rid itself of its coal addiction, a shift that is unquestionably emerging due to the continued hard work of communities and their civil society partners. Change is coming - there is life after coal.

(4581)

LIST OF INTERVIEWEES

Tim Lloyd 7 Sept. 2018.
Nicole Loser 7 Sept. 2018.
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