South African Cities Network Rustenburg

Lochner Marais, Maléne Campbell

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ACRONYMS AND ABBREVIATIONS

AMCU Association of Mineworkers and Construction Union

ANC African National Council

B-BBEE Broad-based black economic empowerment

CE Contractor-employed

CSPro Census and Survey Processing System

COVID-19 Coronavirus Disease 2019

CSR Corporate social responsibility

CV Curriculum vitae

FGT Foster-Greer-Thorbecke

FIFA Federation of International Football Association

G4 Fourth generation

GCR Gauteng city region

GDP Gross domestic product

GRI Global reporting initiative

GVA Gross value added

HIV Human Immunodeficiency Virus

IDP Integrated Development Plan

IIAG Ibrahim Index of African Governance

IIED International Institute for Environment and Development

IR Integrated reporting

IIRC International Integrated Reporting Council

JSE Johannesburg Stock Exchange

MCSA Minerals Council South Africa

MDC Maputo Development Corridor

ME Mine-employed

MFMA Municipal Finance Management Act

MMSD Mining, Minerals, and Sustainable Development

MSA

NGO Non-governmental organisation

NIDS National Income Dynamic Study

NSDF National Spatial Development Framework

NUM National Union of Mineworkers

PCA Principal components analysis

PGMs Platinum Group Metals

RBN Royal Bafokeng Nation

RDP Reconstruction and Development Programme

RLM Rustenburg Local Municipality

SALGA South African Local Government Association

SDF Spatial Development Framework

SEZ Special Economic Zone

SLPs Social and Labour Plans

Stats SA Statistics South Africa

UIF Unemployment Insurance Fund

USA United States of America

WPIC World Platinum Investment Council

CHAPTER 4

PLANNING FOR A POST-MINING FUTURE IN THE RUSTENBURG REGION AND THE TRANSITION TOWARDS IT?

Johan Maritz¹, Mark Oranje, Elsona van Huyssteen and Verna Nel

INTRODUCTION

Over the past 150 years, mining has been one of the most influential shapers of economic activities, social relations, spatial development patterns, power tussles and structures, political questions and debates, institutional structures, and legal and policy frameworks in South Africa. Even though the sector's influence has waned significantly over the last three to four decades, and personal, community and financial services, as well as retail activities, have become more prominent economic players, it is still a major contributor to the national economy and fiscus (Minerals Council South Africa (MCSA) 2019; South Africa, Department of Rural Development and Land Reform 2019).

It is therefore clearly understandable why deliberations and discussions about "the future of the country" and scenario-crafting exercises about "the fate of the nation" often include, or have mining as key theme (Goodman, Rajagopaul and Cassim 2019). This can in the form of "making more of it and doing more with it, while we still have it"; "keeping more of it for ourselves"; "giving back more of it to those living in the areas where it takes place"; or "learning to live with less of it, and weaning ourselves from it by exploring, starting-up and/or expanding other sectors". These engagements often emphasise the need to start as soon as possible with whatever the remedy, contingency or "life-after-mining" is to be. In many cases, this is accompanied by a lament about the absence of, or the slow pace of starting the planning process of giving effect to this idea, as well as the absence of such plans, or the failure to implement the plans prepared for this purpose.

In many so-called "mining towns and regions" in South Africa, mining has been the largest economic sector and the most important provider of direct and indirect employment and livelihoods. However significant the sector may be, it is also a capricious one, with the

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¹ Contributing author: Maritz

industry marked by booms and busts in a ceaseless interplay between *the price* of the commodity on *global markets* and *the cost* of extraction in *local settings*. Subsequently and not surprisingly, such (local) places are often turmoil-hardened narrators of a well-known mining town narrative of "rise, spike, boom, bang and (big) drop" in which the following are common themes: economic freefall; despair, and accompanying feelings of having been abandoned; a yearning for a bygone, far-better era; and a hope that the good times may (one day) return (Haney and Shkaratan 2003; Harfst 2015; He et al. 2017; Pini, Mayes and McDonald 2010; Stephenson and Wray 2005). While there is a large amount of literature on the environmental costs of mining and mine closure, the social and economic consequences that can extend far beyond the mining town and its immediate surroundings, are less well understood.

Despite these generalisations about mining as economic sector in national "future-probing and seeking pursuits" and the commonalities in these discourses, the mining towns and regions in the sub-national space they refer to, are far less generalisable. While some trends, experiences and influences might be shared, the possible, probable, and most likely trajectories of their futures diverge. Without delving into the minutiae of these localities, they include places where little can be done other than mining, and where, due to geographical remoteness and worsening climatic conditions, relocation of whole settlements post-mining may be the most viable option. Other places may have a number of still-to-be-harnessed development options that either were not recognised, bothered about or explored during the heyday of the town or region's mining era, or only became possible through investments made possible by, or undertaken during the boom years. Also, in this mix are places that had a sizeable, or healthy economy "before mining began", and where mining resulted in less focus on, or even shrinkage of these other sectors. Finally, there are places that are well-located in relation to established urban or metropolitan areas that could provide the impetus for the development of economic activities or jobs tied to those areas.

A growing body of work in South Africa has explored the fortunes of mining towns and regions in remote, geographically isolated and climatically harsh parts of the country. Their origins lie in the advent of mining activities in the area, or with very small-scale and limited economic activities before the mining era began, notably so in the Northern Cape and the Free State (Marais 2013; Marais and Nel 2016; Marais, Denoon-Stevens and Cloete 2020; Oranje 2013). Additionally, research into mining regions has been taken further through the

work by researchers at the University of the Free State and associates into the coal mining town of Emalahleni and surrounding areas (Campbell et al. 2017). This was followed by research into the western limb of the platinum belt led by a team from the Council for Scientific and Industrial Research, commissioned by the South African Local Government Association (SALGA) (Maritz et al 2019). This chapter builds on that research by considering the Rustenburg region and the future of the Platinum Group Metals (PGMs) that potentially have more of a future and may even become key players in a "lower carbon world" (Harvey 2014). However, as this chapter will demonstrate, there seems to be a reluctance to acknowledge a future beyond PGMs and an unwillingness to collaboratively plan for such a future.

FRAMING

In this chapter, the focus is on what has been, and is being done, in the Rustenburg region regarding planning for a "post-mining future", entailing both *a transitional mining stage*, and an *auspicious post-mining stage*.

During the *transitional mining stage*, the *understanding* would be that due to automation or downscaled operations, the mining sector makes an increasingly smaller contribution to the regional economy, or employment. It is a stage that has to be actively planned and prepared for by focusing on enhancing the role of existing and innovative non-mining-related economic activities and ramping up their productive and labour-absorptive capacities, developing new economic sectors, and embarking on environmental rehabilitation.

During the *auspicious post-mining stage*, the *understanding* would first be that there might still be isolated pockets of small-scale mining activity remaining in the region, and that there may be research into, and processing of, mineral resources mined outside the region, but that the contribution of the mining sector to the regional economy would be all but negligible. *Ideally so, the preparatory work for, and during*, the transitional mining stage would have paid-off and led to the building of *a vibrant and robust new regional non-mining related economy*. The chapter has to be read in conjunction with the history of Rustenburg (Chapter 2) in order to gain insight into the complex set of challenges, role players and interdependencies that shape and have shaped the region, and impact on any effort in planning for a post-mining future.

The remainder of the chapter is structured into four/FIVE sub-sections. The first section contextualises the research in terms of a high-level review of the existing literature on planning for post-mining futures. The second section provides an overview of key findings, as sourced from three/FOUR data sets, while the third section provides a discussion of the findings in relation to the literature reviewed. The final section provides a brief conclusion to the chapter.

LITERATURE REVIEW

Mine closures (and contraction) can be gradual as the resource declines, but often they are sudden and without warning, driven by distant demand in a globalised economy with traumatic effects on the local community (Godsell 2011; Knierzinger and Sopelle 2019; Pini et al. 2010). Despite the many warnings that closure should be planned for alongside the opening of a mine, closure planning is frequently delayed, or simply not done at all, until one or more shafts, the mine, or mines start to close (Macdonald, McGuire and Weston 2006). Among the reasons for this are an all-absorbing focus on the here and now; a failure on the side of the industry to share prognoses and plans of future expansion or contraction; an "expedient unwillingness" on the side of "place and constituency-bound politicians" to share "bad" mining sector-related, and hence "place and constituency"-related news; and a "stubborn unwillingness" to accept that the ore/commodity is indeed being mined out, or becoming too costly to extract (Knierzinger and Sopelle 2019; Schatz et al. 2013; Strambo, Aung and Atteridge 2019; Veiga, Scoble and McAllister 2001).

While there are positive experiences of the transition from mining to alternative economies, there are far more negative experiences where communities have been left high and dry without jobs in a dying economy coupled with deep levels of hopelessness, while municipalities have lost revenue to sustain and provide basic services and support their residents (Shen, 2013). The problems are often worse in poor regions where the local communities have little power in the face of international corporations (Knierzinger and Sopelle 2019) and where huge dependencies are prevalent. Bainton and Holcombe (2018, 471) commented that not only are the full social and economic costs of mine closure seldom appreciated, but mines tend to "avoid closure responsibilities and externalise social risks".

Internationally, responses to contraction of mine operations and the closure of mines have generally included doing nothing besides dismantling the mining infrastructure and abandoning the area, particularly in remote areas (Veiga et al. 2001) or, on the other hand, attempting to revive or substitute the economic base (Strambo et al. 2019). In China's coal mining regions, industrial development has been pursued to replace the thousands of jobs lost when numerous mines were closed (He et al. 2017). This has been fairly successful in Daqing in China, where the manufacturing of petroleum products has supplemented the oil mining industry (He et al. 2017). Industrial development in Sudbury in Canada has successfully focused on high technology in mining, which has been extended to information industries (Martinez-Fernandez et al. 2012). Proximity to large cities that already had diverse economies has facilitated the development of substitute economies in Houston and Pittsburgh in the United States of America and the Ruhr Valley in Germany (He et al. 2017).

Some success was achieved with heritage tourism in the mountainous regions of Austria, Slovenia, Serbia and Germany that included rehabilitation to make the areas attractive for adventure and ecotourism (Harfst 2015). Similarly, various heritage projects have been developed in Canada and the United Kingdom (Haiven 2002), while in South Korea, a tourism industry linked to a casino was built up (Shen 2013). Tourism was also planned to support the local economy when coal mining declined in KwaZulu-Natal in South Africa (Nel et al. 2003). However, tourism has not replaced the mining jobs that were lost and is in itself also a very fragile industry, as clearly illustrated by the recent coronavirus pandemic (COVID-19) and its consequently imposed travel restrictions and subsequent long-term facility closures.

In regions and places where agriculture was part of the local economy, and especially so where it retained a presence during the mining era, this remains an economic option (Andrews-Speed et al. 2005). Mount Isa in Australia and Rooiberg in South Africa have become such service centres (Godsell 2011; Martinez-Fernandez et al. 2012). However, trying to develop a new agricultural economy where there are limited resources, hardly any sector-specific skills and very few or no markets for the offset of produce, is likely to merely result in dilapidated and vandalised infrastructure, social problems and poverty (Beckett and Keeling 2019; Haney and Shkaratan 2003).

Support from governments in the form of subsidies, grants or loans for small business development has been an important component in managing the economic and social consequences of mine closures (Strambo et al. 2019). Within government circles, both locally and abroad, there also *does seem to be* a growing emphasis on planning for mine contraction and closure from the outset (Owen and Kemp 2018). In the South African context, Anglo American's *Sustainable Mining Plan* (2019) provides an interesting industry example of such planning. This support will, most likely, in the current and post COVID-19 context, prove to be crucial in sustaining lives and livelihoods in many deeply deprived areas.

By far the most important part of managing mine closure is community involvement and participatory planning for social and economic aspects associated with mining decline, particularly in the early phases of closure (Bainton and Holcombe 2018; Martinez-Fernandez et al. 2012). Negative post-mining consequences have been the most devastating in cases where collaboration has failed. Such cooperation should involve the mining companies, the residents, and the national, provincial/regional and local government, with government and the residents on an equal footing with the corporate mining companies. Additionally, this requires capacity in government, especially at the local government level, to provide strong local and regional planning and development leadership (Strambo et al. 2019).

RESEARCH AND DATA

The research into the planning for the two stages of a post-mining future in and for the Rustenburg area, namely the transitional stage, and the post-mining stage, was qualitative in nature, comprising three strands:

- 1. A desktop study was conducted into published material and unpublished research reports, papers, conference proceedings and newspaper reports.
- 2. Content analyses of official national, provincial and local government documents, including the Draft National Spatial Development Framework (NSDF); the plans for the Special Economic Zone (SEZ) in the region; the Northwest Provincial Development Plan (2013) and Spatial Development Framework (SDF 2016); the Integrated Development Plans (IDPs) and SDF for the Bojanala Platinum District Municipality and its local municipalities; and the long-term plans prepared by the traditional authorities for the area.

These analyses were extended beyond official planning processes to also include outputs from recent initiatives aimed at supporting regional planning and economic development in the Bojanala District and surroundings, in which some of the authors were involved. These include the Bojanala Regional Baseline Study spearheaded by the SALGA and funded by the European Union to identify regional development dynamics, economic opportunities and challenges, as well as critical implications for regional role players in the Western Limb of the Platinum Belt; the development of guidelines for regional economic collaboration and engagement with key role players in the region; and a SALGA-initiated training programme to raise awareness and build the capacity of local and district officials for cross-boundary municipal planning in the District.

3. Semi-structured interviews were conducted during the period September 2018 and May 2019 with representatives from mining companies, labour unions, the non-mining-related private sector, community groups, the district municipality and local municipalities in the district, traditional leaders, national and provincial government departments, and experts in the mining sector. These were complemented with additional interviews specifically for this research.

Key themes with regard to evidence of planning for the two stages were extracted from the three bodies of data, combined and assessed against the key themes that were extracted from the literature review on the topic of planning for post-mining futures. Both the findings and the outcomes of the comparative exercise are captured in the following section.

FINDINGS

Three key themes were extracted from the data captured. These themes are presented below and discussed in relation to relevant themes identified in the literature review.

Lack of engagement with planning for the future, and notably a post-mining future

While many plans and frameworks "for the future" have been prepared for the Rustenburg region or for parts of it over the last three decades, these *have not*, and *do not* consider or engage a time in which there will *no longer be mining activities in the area*. This is the case

despite the reality of major transitions and severe job losses, and economic pain caused by downturns in the fortunes of the sector over the last decade, notably so in the aftermath of the Marikana Massacre. Instead, the plans suggest that the presence of PMGs, and hence, the PMGs mines in the area, were and still are viewed as "a given", as an eternal, constant feature of the area that will always be there, just like the sky above and the soil below. An example of this is the recently developed *Bojanala Special Economic Zone*, which mainly relies on the continued presence of the local platinum mining sector (North West Development Corporation 2019). At best, there is the suggestion in some of the plans of a future in which there will be more mechanised and less intensive mining in the region, *but not one in which there will be no mining at all*. However, even in such cases, not much consideration was given as to the future economic mix of such a changed economic scenario.

In many of the interviews, the absence of planning for the future was echoed in a reluctance, even an unwillingness, to consider a future without mining. In a number of these cases, references were made to new mines opening up in the area, and promises or commitments, prospects and plans for many more to come in the next couple of years. In some of these interviews it was observed that there are changes in the nature of mining and in the specific metals in the PGMs and other metal groups that are being focused on in these operations, and the new mines are, and will increasingly be, more mechanised and therefore employ less labour. When prompted on the future of work and jobs in the region, given these observed and anticipated technological changes, this was often met with a notion of that is the way of the world and not something I can do anything about, or the suggestion that people could and should be upskilled to work in such mines. It was not seen or treated as something that could have significant impacts on what is already a very volatile region, and that should therefore be carefully planned and prepared for and transitioned towards in a planned fashion.

The Draft NSDF identified Rustenburg as a national urban node that required focused and tailor-made support as a result of the economic decline and increased numbers of households in poverty (see Chapter 2). The surrounding region was also identified as a major national production region for eco-resources with significant agricultural, ecological and tourism infrastructure of national significance, requiring focused and strategic management. While extensive and in-depth analyses led to the identification thereof, and informed the prescription of these priority action areas in the draft NSDF, the framework, being at national scale, did not delve into development proposals. It did, however, call for detailed, subsequent

planning and plans to diversify the economy and support its transition to the secondary and tertiary sectors, to create transformed, well-functioning settlements, to support agroprocessing, viable mineral and metals beneficiation and alternative energy production, and to strengthen existing connections to, and links with the economy's cores in the Gauteng City Region (GCR).

In a few of the interviews it was suggested that there are definite concerns among officials tasked with planning about the future, and a recognition of the need for plans to be prepared for a post-mining future, but that this topic was not popular with "the powers that be" and therefore "not something that was pursued too seriously". In some quarters, it would seem that talking about such post-mining futures was career-limiting and akin to blasphemy. Exactly why this kind of engagement was viewed as such by "the powers that be" was not clarified. It should, however, be noted that the mining sector and role players in the mining sector are regarded as critical social partners in the economic development and housing and settlement development in the country.

From the interviews, it also emerged that mining forums in the region, in which all stakeholders and role players participated, have come and gone over the years. This is the case despite the clear indications that any PGMs-related regional development in the area would require active collaboration between all role players to galvanise and re-energise the sector. When asked about the prospect of regional champions from the side of government to take on the task of rebuilding the forums, no appetite or desire for agency was expressed on the side of local, district and provincial government or organised local government.

On the side of industry experts, it was mentioned that PGMs mining in the area is becoming increasingly more costly given the enormous depths at which the commodity has to be extracted, and that there are far more lucrative and lower-cost production options in the Northern Limb of the Platinum Belt, which poses a serious threat to the future of mining in the region. At the same time, they were quick to point out that demand, exchange rates and cost structures are fluid, and hence it is not that easy to rule out that mines would stay, or be making a strong comeback in the region which still has sizeable (but harder to extract) reserves of the commodity.

As for the unique spatial location of the region in relation to the GCR, the economic prospects it offered, and potential challenges it held with regard to the future, this was documented in a "static map-like fashion" in many of the plans, but not engaged, unpacked and made sense of in a spatial, relational sense. It was as if the region could have been located anywhere in the country. Yet, when prompted about their daily and weekly movement patterns, it was frequently observed by interviewees that many people who work in the region, live in Tshwane and that frequent weekend trips are therefore made to the entertainment and shopping nodes in Tshwane and Johannesburg. Some also referred to the loss of vibrancy in the towns in the region, due especially to the slump in the local economy experienced since the Global Financial Crash, which "drove" them to the livelier nodes in the GCR.

It is foreseen that the traditional authorities in the region will most likely continue with the development of, and long-term planning for their areas, as referred to in Chapter 2. As opposed to the transient mining companies, they are tied to their lands in the region and have a *vested spatial interest*, and will very likely be far keener to work on plans that have the long-term sustainable development of the region at heart. With regard to governance, this might, however, lead to the continuation of a problematic *dual governance system* (Maritz et al. 2019).

The limited and fractured engagement with, and consideration of post-mining futures essentially meant that there was no planning for the transition towards such futures.

Under-researched, underdeveloped, under-engaged and unrealistic ideas about the future

In a few plans, ideas and proposals for post-mining futures were put forward, but these were in most cases not based on thorough research, in-depth analysis or consideration of the economic viability and costs and benefits of these ideas or proposals. Neither was there evidence of research initiated or supported by multi-stakeholders, consideration of and deliberation on alternative futures, and mapping of a chosen way forward. As for the content of the proposed futures, many of these could have been put forward for any place or region anywhere in the world – and not necessarily even "any mining region" – that requested a makeover and had been given a glossy catalogue with equally glossy cookie-cutter futures to choose from, such as tall glass and stainless steel buildings with hanging gardens,

meticulously cleaned walkways, golf course-quality green grass and clear blue skies (see Watson 2014). How the semi-arid, water-scarce region with its huge informal settlements and appalling housing conditions would be transformed into such a "fantasy" future, and what the economic base/driver of this future would be, was not clarified.

In some of the interviews, reference was made to economic sectors that would be supported and developed in an attempt at diversifying the economy of the region. Some of these sectors, such as tourism and agriculture, preceded the advent of PGMs mining in the area and, despite losing their prominence during the platinum boom, remained active in the region. Where proposals for strengthening and expanding these sectors were put forward, the adverse impacts of mining on these sectors, especially agriculture, were not adequately considered and the proposals as such did not include proper, targeted transition planning and mediation of the damage done. Full value-chain analysis and planning based on such analysis was also not evident or provided for. At best, trade-offs in terms of land development, water resources and impact on the natural environment in relation to tourism and agriculture were mentioned (see Rustenburg Local Municipality, 2017/2018).

Proposals were also put forward for "manufacturing" as an economic sector that was substantially larger in a number of towns in the region in the past, partially through lucrative State support as part of the apartheid government's deconcentration policy, but had shrunk significantly over the last few decades, and currently employs only a small number of people in the region. What exactly the region would manufacture, and how it would be able to compete with the large and established manufacturing sector in the core area of the GCR, without the kind of support it received in the past, and for that matter with other such manufacturing hubs in the country and the world, was also not clear. While it is not doubted that these proposals may have merit, it is just that there was no evidence of the rigorous kind of research required to quantify and qualify them, or the collaborative, multi-stakeholder, focused planning required to properly ground or anchor, establish, advance and support such proposals.

As indicated earlier in this chapter, many of the proposed manufacturing opportunities are also strongly linked to the PGMs, as in the case of the Bojanala SEZ, located at the Bodirelo Industrial Park (a former apartheid deconcentration area). This SEZ seeks to support a number of value chains, including mining input supply, catalytic convertors and platinum

recycling, and much of the success of this SEZ therefore relies on the continued presence of the PGMs mining sector in the region (North West Development Corporation 2019). Apart from the refurbishment of two commercial sites within the industrial park, and promises of commitments by prospective tenants, it has not progressed beyond political promises, statements in the media and related advertisements. Even more concerning is that the SEZ location was not based on an agreement between the municipalities in the region – two of which already have large industrial areas on the N4 national corridor in which such an initiative could have been located. In essence, it is a point-based economic intervention dropped down from above without any regional or local engagement and put forward without the necessary systems-based analysis and planning for the crucial acupunctural impact it was supposed to have in what has become a popular "construct" in the fractured and disjointed South African regional economic development playbook over the last few years, namely a "bankable catalytic project".

Concerned about the mounting pressures facing mining municipalities and declining mining towns in the region, as well as the inward focus of municipal priorities, and the sectororientated focus of national and provincial initiatives, SALGA commissioned a study to develop a regional baseline for the Western Limb of the Platinum Belt as referred to above. The premise of the study was that generating evidence on the potential implications of the PGMs and mining industry, as well as highlighting emerging economic opportunities and strengths in sectors, towns and regional value chains, would generate support and potentially galvanise actions among local and provincial role players and institutions. The need for regional leadership and collaboration among local role players in planning for "a transitioning economy" was also identified by the national Department of Cooperative Governance and Traditional Affairs, and the region was accordingly selected as a priority site for testing and implementing national guidelines to support such collaboration. However, while the findings of these "external" initiatives provided a fertile ground for engagement among regional role players, and officials to recognise the need for action in utilising opportunities and mitigating risks, it remains an open question what the impact of such "credible evidence" and "the realisation" of officials and other role players of the urgent need for plans and action would be. Even more so, in a context where both provincial and other forms of leadership to drive regional development is clearly lacking, and where regional action agendas struggle to find voice and be heard in the bigger sea of sector and ward-based projects and performance targets.

A toxic prevalence of deep divisions, multiple suspicions and simmering anger, coupled with a glaring absence of collective, shared futures

Talking about the future was in many of the interviews a deeply troubling matter. Given the persistence of past injustices despite the advent (and promise) of democracy in 1994, there was a prevailing deeply despondent sense that *not much will change in the future*. Throughout most interviews, a pervasive discord emerged of a deeply divided community in which hostility, bitterness, suspicion and anger were part of everyday life, and negative experiences of "being stumped whenever anyone tried to start their own businesses" abounded. This was often attributed to gatekeepers in businesses and land development processes. These enormous schisms and bitter antagonisms extended beyond the historical colonial and apartheid divisions of race, class and socio-economic status, into the domains of ethnicity, "people from other parts of the country" and "foreigners". Suspicions and cynicism about, and anger towards those in power, especially those who were seen as having sided with "the enemy", that is "the owners of (mining) capital", were also common.

In engagements with officials on the challenges for regional collaboration, even when the value is recognised, the ability of officials to influence action was limited. Such limitations include a mountain of bureaucratic processes and silo-focused reporting requirements and performance targets, day-to-day crisis management in highly politicised and low-trust environments, and a dire socio-economic context that fuels inward and immediate gratification agendas of a variety of role players. The only *glimmer of hope* was found in a series of anecdotal stories shared about unexpected collaboration and goodwill between local businesses, communities and the taxi industry.

At the same time, there was a sense that *planning for a post-mining future was premature*, and viewed by a number of interviewees as part of a plot concocted by "mining companies and their lackies" to shift the focus away from the need to pay living wages, or justify the laying-off of workers. Often it was observed that *there are still vast reserves of platinum in the area* – that there was still *a massive treasure chest of metals stored below the soil* – and that mining companies had made enough money and were simply just no longer interested in the risks and costs associated with extracting these harder-to-get-to-reserves. Suggestions of

giving workers *the rights or keys to mine* and supporting them in doing so, were frequently made by such interviewees.

Even among those that were not directly involved in the mining sector, there was not much of a desire to come together and jointly map a way forward towards a post-mining future for the region. In cases where interviewees themselves expressed the need to do so, they invariably doubted the prospect of this happening. According to them, the legacy of decades of injustice and exploitation culminating in the Marikana Massacre; the prevalence of what they perceived to be "collusion between pockets of elites"; corruption, nepotism and ineptness in government; or the lack of collaboration and even open hostility between "those with power in the area", namely traditional leaders, elected government structures, mining companies and different "elite groupings", ruled against it. As in other mining areas, the lack of sharing of information by mining companies about their operation and future plans with communities and government, was viewed by many interviewees as the single largest hindrance to such planning. This enormous barrage of *negative social capital* is not the kind of attribute on which to build, and from which to map a way forward towards a different, new, inclusive and transformed future in which PGMs play a role, alongside a range of other more sustainable economic sectors, and ways of making a life and a living in the region.

Lack of deliberate action and leadership, in spite of a multiplicity of role players and everincreasing demands for intergovernmental collaboration

It was evident from the various sector-specific and integrated plans, studies and research that the city and surrounding region as a dense "urban-and-mining", and increasingly "post-mining landscape", were not only faced with risks associated with the decline of the mining industry, but also by competing demands on natural resources. These demands are set to grow in intensity due to climate change and a growing population, and also pose serious risks to agriculture and ecotourism activities in the region.

Nevertheless, while many of these issues and concerns of opportunities are mentioned in plans and budgets little is done in terms of implementation and action on the ground. At the same time, there is little evidence of attending to these challenges in a collaborative fashion and crafting of a shared vision and future for the region. While there is a strong emphasis on "correcting current gaps or deficiencies" through the pursuit of good governance, capacity

building and municipal financial viability and adherence to regulations and project-based implementation and alignment, very little is said about the focused and sustained "crafting of a better future". This void on the future includes no reference to, or engagement with structures such as a *regional, boundary-blind and highly responsive agency or entity* that could galvanise joint action between the multiplicity of role players and institutions and multitude of constituency and place-based infrastructural and sector-focused investment plans and strategies.

SUMMARY AND DISCUSSION OF KEY FINDINGS

The experience in Rustenburg seems to echo the negative consequence of experiences in other areas/cases where the lack of planning for transition and post-mining phases led to economic decline and job losses, with extremely detrimental impacts on the financial viability of local governments (Shen 2013). During the boom years – the period 2001 to 2011 – no investment was done in developing potential future economies, and neither were the massive racial income inequalities inherited from the past attended to, or a new, solid, post-1994 foundation of "regional goodwill" built.

All the data clearly suggests that the region is still placing its hope on a future in which PGMs play a dominant role. As suggested in Chapter 2, there are viable future opportunities for the PGMs, especially in the area of the hydrogen fuel cell, but the realisation of this future necessitates both a huge vote of confidence from, and massive and sustained investment by national government. It also requires of local government and private sector role players in the region to come together and elevate this to a matter of national significance.

The literature clearly indicated the value of community involvement and collaboration between government, mining companies, private sector and communities in preparing for socio-economic challenges related to decline, automation and mine closure, and planning for and transitioning to a post-mining economy. However, the evidence suggests that this was largely non-existent in the Rustenburg region. Given that there are ample opportunities for this within mandated planning processes, such as in the preparation and reviews of IDPs and SDFs, it may still be possible for all stakeholders and role players to do so, and jointly explore, plan for, and transition towards a post-mining future in the area.

A further concern when reflecting on planning in this region, and in many other regions in South Africa, is the absence of "the regional view" when undertaking local planning to avoid duplication. It may, however, just be that the recently introduced District Development Model (DDM) could provide the necessary focus, institutional form and political clout to collectively and creatively craft, and move towards such a "new future" for the region and all its inhabitants. Of crucial importance is that, as part of this "district drive", all stakeholders are "brought to and kept around the table", deep wounds are healed, fractured and acrimonious social relationships are repaired, the prospect of a future with less or no mining is seriously attended to, the multiple threats to the region are considered and contingencies pondered and planned, and a better future for the region and all its inhabitants is planned, designed and made possible.

CONCLUSION

This chapter presented a worrying set of findings that boil down to one thing: that *little is being done* in the Rustenburg region with regard to planning for a post-mining future, or the transition towards such a future. This is deeply disconcerting, as focused, multi-stakeholder, collaborative planning that is based on credible research on, and sense-making of the "future of mining towns and regions" in South Africa is crucial for *the future*, not only of these towns and regions, but of the country as a whole. This will require regional collaboration and the formation of a *regional social compact*. And, whereas the region and its economy were historically primarily shaped by a few large mining companies, such a compact will need to consist of many more, and both large and small and formal and informal role players in the economy.

Given the continued increase in the population of the region, and notably so of younger people, sizeable, diversified, inclusive and sustainable economic development will be required. This will necessitate novel, and most likely, highly disruptive approaches to economic development, coupled with innovative approaches to, and forms of business support and capacity building, as well as high impact land reform, improved access to services, and a pursuit of food security. These will, in turn, shape the future of governance,

service delivery and socio-ecological systems, and assist the region in making the transition to a post-mining life and landscape for all.

REFERENCES

- Andrews-Speed, P., Ma, G., Shao, B. and Liao, C. (2005). "Economic responses to the closure of small-scale coal mines in Chongqing, China." *Resources Policy*, 30(1) 39-54.
- Anglo American. (2019). *Our sustainable mining plan*. London, United Kingdom. https://www.angloamerican.com/~/media/Files/A/Anglo-American-Group/PLC/sustainability/anglo-american-sustainable-mining-plan.pdf
- Bainton, N. and Holcombe, S. (2018) "A critical review of the social aspects on mine closure." *Resources Policy*, 59, 468-478.
- Beckett, C. and Keeling, A. (2019). "Rethinking remediation: Mine reclamation, environmental justice, and relations of care." *Local Environment*, **24**(3), 216-230. doi:10.1080/13549839.2018.1557127
- Campbell, M, Nel, V and Mphambukeli, T (2017) "A thriving coal mining city in crisis? The governance and spatial planning challenges at Witbank, South Africa" Land Use Policy 62 223-31
- Godsell, S. (2011). "Rooiberg: The little town that lived." *South African Historical Journal* 63(1). 61-77. doi:10.1080/02582473.2011.549374
- Goodman, S., Rajagopaul, A. and Cassim, Z. (2019). Putting the shine back into South African mining: A path to competitiveness and growth. McKinsey & Company. https://www.mckinsey.com/featured-insights/middle-east-and-africa/putting-the-shine-back-into-south-african-mining-a-path-to-competitiveness-and-growth#
- Haiven, L. (2002). "Regeneration among coal-mining communities in Canada and UK: The role of culture." In *Interrogating the new economy: Restructuring work in the 21st*

- century, edited by N. J. Pupo and M. P. Thomas, 195-214. University of Toronto Press.
- Haney, M. and Shkaratan, M. (2003) *Mine closure and its impact on the community: Five years after mine closure in Romania, Russia, and Ukraine*. Policy Research Working Paper. Washington DC, World Bank. http://hdl.handle.net/10986/18177
- Harfst, J. (2015). "Utilizing the past: Valorizing post-mining potential in Central Europe." The Extractive Industries and Society, 2(2), 217-224. doi:10.1016/j.exis.2015.01.003
- Harvey, R. (2014). The future of the platinum industry and its implications for South Africa [Online]. South African Institute of International Affairs. https://saiia.org.za/research/the-future-of-the-platinum-industry-and-its-implications-for-south-africa/
- He, S. Y., Lee, J., Zhou, T. and Wu, D. (2017). "Shrinking cities and resource-based economy: The economic restructuring in China's mining cities." *Cities*, 60, 75-83.
- Knierzinger, J. and Sopelle, I. T-I. (2019) "Mine closure from below: Transformative movements in two shrinking West African mining towns." *The Extractive Industries and Society*, 6(1), 145-53. doi:10.1016/j.exis.2018.08.010
- Macdonald, C., McGuire, G. and Weston, H. (2006) *Integrated closure planning review: Literature review.* London: International Council on Mining and Metals (ICMM).
- Marais, L. (2013). "The impact of mine downscaling on the Free State Goldfields." *Urban Forum*, 24, 503-52.1 doi:10.1007/s12132-013-9191-3
- Marais, L. and Nel, E. (2016). "The dangers of growing on gold: Lessons for mine downscaling from the Free State Goldfields, South Africa." *Local Economy*, 31(1-2), 282-298. doi:10.1177/0269094215621725
- Marais, L., Denoon-Stevens, S. and Cloete, J. (2020). "Mining towns and urban sprawl in South Africa." *Land Use Policy*, 93. doi:10.1016/j.landusepol.2019.04.014

- Maritz, J., Van Huyssteen, E., Sogon, Z., Mans, G., Green, C., Ragoasha, M. and Komane, R. (2019) "Baseline study for the Bojanala and cross-provincial mining region." Pretoria: SALGA..
- Martinez-Fernandez, C., Chung-Tong Wu, C-T., Laura, K., Schatz, L. K., Taira, N. and Vargas-Hernández, J. G. (2012). "The shrinking mining city: Urban dynamics and contested territory." *International Journal of Urban and Regional Research*, 36(2). 245-260.
- Minerals Council South Africa. (2019). Facts and figures pocketbook 2019. https://www.mineralscouncil.org.za/industry-news/publications/facts-and-figures
- MCSA (Minerals Council South Africa). (2020). Facts and figures pocketbook 2020. https://www.mineralscouncil.org.za/industry-news/publications/facts-and-figures
- Nel, E. L., Hill, T. R., Aitchison, K. C. and Buthelezi, S. (2003) "The closure of coal mines local development responses in Coal-Rim Cluster, northern KwaZulu Natal, South Africa." *Development Southern Africa*, 20(3), 369-385.
- North West Development Corporation. (2019). *Bojanala SEZ established in the North West*. [Online] Rustenburg. https://nwdc.co.za/trade-investment/bojanala-sez-established-north-west/
- Oranje, M. (2013). "The extractive industries and 'shared, inclusive and sustainable development' in South Africa." *Spatium International Review*, 29, 1-7.
- Owen, J. and Kemp, D. (2018) *Mine closure and social performance: An industry discussion paper*. Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland: Brisbane.
- Pini, B., Mayes, R. and McDonald, P. (2010). "The emotional geography of a mine closure: A study of the Ravensthorpe nickel mine in Western Australia." *Social & Cultural Geography*, 11(6), 559-574. https://doi.org/10.1080/14649365.2010.497850

- Rustenburg Local Municipality. (2019). Annual Report 2017/2018.
- "https://www.rustenburg.gov.za/wp-content/uploads/2019/06/ANNUAL-REPORT-2017-2018.pdf
- Schatz, L., Leadbeater, D., Martinez-Fernandez, C. and Weyman, T. (2013). "From 'up north' to 'down under': Dynamics of shrinkage in mining communities in Canada and Australia." In *Shrinking cities: International perspectives and policy implications*, edited by K. Lallagst, T. Wiechmann and C. Martinez-Fernandez, 205-223. New York, Routledge.
- Shen, D-C. (2013). "A cluster of four coal mining cities in Korea: How did the people overcome a crisis after a massive closure of mines?" In *Shrinking cities: International perspectives and policy implications*, edited by K. Lallagst, T. Wiechmann and C. Martinez-Fernandez, 186-204. New York, Routledge.
- South Africa. Department of Rural Development and Land Reform. (2019). *Draft National Spatial Development Framework*. Pretoria.
- Strambo, C., Aung, M. T. and Atteridge, A. (2019). *Navigating coal mining closure and societal change: Learning past cases of mining decline*. Stockholm Environment Institute.
- Stephenson, C. and Wray, D. (2005). "Emotional regeneration through community action in post-industrial mining communities: The New Herrington Miners' Banner Partnership." *Capital & Class*, 29(3), 175-199.
- Veiga, M., Scoble, M. and McAllister, M. (2001). Mining with communities. *Natural Resources Forum*, 25(3), 191-202.
- Watson, V. (2014). "African urban fantasies: Dreams or nightmares?" *Environment and Urbanization*, 26(1), 215-231. doi:10.1177/0956247813513705