



*The Office Of The Principal and Vice - Chancellor*

**PROF MANDLA MAKHANYA, PRINCIPAL AND VICE-CHANCELLOR**  
**UNIVERSITY OF SOUTH AFRICA**  
**THE MINING CHARTER COLLOQUIUM**  
**FUNCTION HALL, 4<sup>TH</sup> FLOOR KGORONG BUILDING**  
**29 APRIL 2019**

Programme Director, this being an academic institution I thought I would start off the first part of my contribution with an academically-inclined introduction. I do not however intend to give a comprehensive academic exposition on mining and some of the dynamics of the industry.

What I intend to do though is provide a broad outline, with a view to asking the ultimate question: *Quo Vadis* the South African mining industry? This I do with the expectation that the Minister will then provide some strategic answers to many of our questions, and possibly respond to some of my suggestions.

In order to arrive at where we are today I propose that we take a look back at how mining developed in our country. This we should do in an attempt to draw lessons that we can apply to today's situation.

With the aforementioned in mind I wish to address four areas which I believe are critical if we are to address some of the challenges facing the mining sector today.

First, I will take a cursory look at the development of large-scale mining in South Africa, and its legacy. I am deliberately using the term 'large-scale mining' because mining in South Africa did not start during the 19<sup>th</sup> Century. A number of studies demonstrate that mining in South Africa is as ancient as humanity itself.<sup>1</sup>

Second, I will briefly examine some of the current challenges faced by the sector.

Third, I will suggest some innovations that may be explored.

---

<sup>1</sup> See for instance: Evers, T.M & Van der Berg, R.P (1974) Ancient Mining in Southern Africa, with reference to a Copper Mine in the Harmony Block, North-Eastern Transvaal, *Journal of Southern African Institute of Mining and Metallurgy*, Volume 74, Number 6, 1 January 1974, pp. 217-226; More, C.E (1974) Some Observations on 'Ancient' Mining at Phalaborwa, *Journal of Southern African Institute of Mining and Metallurgy*, Volume 74, Number 6, 1 January 1974, pp. 227-232; and, Evers, T.M (1975) Recent Iron Age Research in the Eastern Transvaal, South Africa, *The South African Archaeological Bulletin*, Volume 30, Number 119/120, pp. 71-83

Finally, I will sponsor some possible strategic partnerships that we may consider.

## **Evolution of Mining and the First Phase of Modern Capitalism: 1870 to 1910, and beyond**

In his 2005 book, *An Economic History of South Africa: Conquest, Discrimination and Development*, Charles H. Feinstein argues that the character and course of South Africa's economic history was influenced by a unique endowment of both human and natural resources.<sup>2</sup>

Feinstein argues further that this was unique in that other countries, especially those that had been conquered by European powers, had either one of the two, but not both. This was due largely to the fact that, while they had natural endowments, these countries had inadequate human resources.

Unlike in the case of the indigenous peoples of the USA, New Zealand and Australia, the indigenous people of South Africa remained a resilient force in terms of numbers. The unique character of colonialism in South

---

<sup>2</sup> Feinstein, Charles. H (2005) *An Economic History of South Africa: Conquest, Discrimination and Development*. Cambridge, Cambridge University Press

Africa was not to exterminate the indigenous population, but to preserve it for exploitation as need for labour began and consistently expanded.

While acknowledging the lack of accurate statistics, Feinstein estimated the indigenous population to have stood at around 1, 5 million at the beginning of the 1800s. In addition, there were half a million Europeans, making the population of the country to over 2 million.

It was however not until 1867 when large-scale diamond mining began in Kimberley that the human resources endowment of the country would start to be fully exploited. The Diamond Rush that resulted with the exploitation of these precious metals had an impact in attracting African labourers from various parts of the country, including from neighbouring Mozambique and Zimbabwe.<sup>3</sup>

The effect of this development, as it would be repeated when gold mining began in the Witwatersrand in 1886, was the proletarianisation of the African peoples. Having been dispossessed of the land and therefore finding it difficult to survive on agriculture, African peoples started selling their labour as mine workers in both Kimberley and Johannesburg.

---

<sup>3</sup> Turell, Robert V (1987) *Capital and Labour on the Kimberley Diamond Fields, 1871-1890*. Cambridge, Cambridge University Press

As Turrell points out, a few were able to avoid selling their labour and instead sold some agricultural produce to the miners.<sup>4</sup>

From this account we are able to deduce that two developments happened with the emergence of large-scale mining. The first was the diversification of the South African economy from agriculture, now including mining.

The second development was the emergence of the African working class, directly as mine workers and later as industrial workers as South Africa began to industrialise. Thus, at the level of economic development and configuration we see the emergence of the mining-industrial complex.

On the other hand, the emergence of the mining-industrial complex led to the second and third phase of railway transportation.

---

<sup>4</sup> Ibid, pg. 21

Having started at a modest level in 1858 in Natal and the Cape, and only 100km by 1870,<sup>5</sup> railway development expanded with the construction of the Kimberley connection and later the Witwatersrand connection.<sup>6</sup>

What we learn out of this cursory look at the development of large-scale mining is how the sector led to the growth of the South African economy. Specifically, these developments led to the development of the South African capitalist system, which became racial in character and content. The rest, as we would say, is history.

But why am I bringing all these historical developments into an occasion that is aimed at examining the current challenges facing the sector?

### **Some Current Challenges for the Mining Sector**

Programme Director, an extensive study and deeper analysis of the history of the mining industry suggests readily that for us to understand the challenges facing us today we ought to look back and have an appreciation of how we arrived here.

---

<sup>5</sup> Inggs, E.J (2016) *Economic History of South Africa – MO001 for ECS2609*. Pretoria, University of South Africa. Pg. 160

<sup>6</sup> Ibid, pgs. 160 & 165

First, from its inception the mining industry was exclusionary in terms of ownership. It followed and in fact enforced the racial patterns of ownership and control that were a result of colonialism and subsequent regimes of racial exclusion and exploitation.<sup>7</sup> We must therefore still address this stubborn problem.

It is my understanding that discussions around the Mining Charter<sup>8</sup> seek to address this challenge, amongst others.

The second feature that developed as the mining industry grew was the exclusion of local communities from any benefits that should accrue when a new industry developed on their land.

At a simple level this was due to the fact that land dispossession was almost complete by the time large-scale mining emerged.

---

<sup>7</sup> See for instance, Yudelman, D (1984) *The Emergence of Modern South Africa: State, Capital, and the Incorporation of Organised Labor on the South African Gold Fields, 1902-1939*. Cape Town and Johannesburg, David Philip; and, Magubane, B.M (1979) *The Political Economy of Race and Class in South Africa*. New York and London, Monthly Review Press

<sup>8</sup> Government of South Africa (2018) *Draft Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry, 2018*. Government Gazette: Republic of South Africa, Volume 636, Number 41714, 15 June 2018. Accessed on 27 April 2019 at [http://www.gpwonline.co.za/Gazettes/Gazettes/41714\\_15-6\\_MineralandEnergy.pdf](http://www.gpwonline.co.za/Gazettes/Gazettes/41714_15-6_MineralandEnergy.pdf)

Except for few instances like those of some of the communities in Kimberly that I mentioned earlier who benefited a bit from small-scale trading, most communities did not benefit from mining activities.

I do not wish to come across as adopting a simplistic attitude in relation to this major challenge. This is a problem that the Minister is definitely concerned with. It is one of the most stubborn challenges of our times which I am also aware forms part of the discussions around the Mining Charter.

It is also clear that what needs to be considered is not only the issue of how communities benefit from mining activities that take place in or near their areas. It is the nature and content of those benefits that we must also look at.

Again, a cursory examination of history is important.

In addition to giving rise to and shaping South Africa's industrialisation, large-scale diamond and gold mining led directly to the establishment of

the Universities of Cape Town and Witwatersrand respectively. That was due to the need for engineering skills.<sup>9</sup>

It can be argued that almost all our local universities, like universities all over the world, were established as a response to the need to fulfil certain skills requirements.

An anomaly that is difficult to explain is that Kimberley itself never grew to be a major city like Johannesburg. It did not have a university of its own, until recently. It was therefore a classical case of an area whose natural resources were being extracted with little regard to developing it and its peoples.

The same observation can be made in relation to the mining towns of Mpumalanga.

Despite being the main supplier base for the country's energy needs in the form of coal that is required for electricity production, all the mining towns in that province have remained small. Again, it is only recent,

---

<sup>9</sup> See <http://www.uct.ac.za/main/about/history>, and, <https://www.wits.ac.za/mecheng/history/> (Accessed on 27 April 2019)

under the democratic government, that we now have a new university there.

What then are the lessons from these observations, and what ought to be done?

### **Some Possible Innovations to be considered**

One of the major discussion points around the economics of mining in our country is the need to develop a strong beneficiation industry. This is an area that we all know that the Minister is quite an expert in articulating. We must, as a matter of urgent necessity, fast-track the practical implementation of this trajectory.

Minister, it is my submission that one of the considerations that you ought to make, in addition to beneficiation, and I am sure that you are doing so, is to have as one of the conditions for any future mining endeavours the need to avoid the mistakes of the past.

What do I mean by this?

I would like to submit that one of the considerations that must be made is to 'tie' new mining endeavours with plans for massive industrialisation of the area.

New towns must therefore be planned and developed around these areas whose main feature will be manufacturing.

There is no need for me to emphasise that manufacturing remains the bedrock of any country's ambition to develop. Therefore, as part of the strategy for development there must be well-thought, well-planned, and carefully managed investment-attraction drive for a newly designated mining area.

Related to this investment drive to establish a solid manufacturing base of related and unrelated industries should be carefully planned spatial plans for human settlement.

A carefully planned industrialisation and human settlement plan will of course lead to the 'kicking in' of the economic multiplier effects which then give rise to the development of service industries.

I am saying all these being aware of the finiteness of mineral resources.

We know too well the fate that has befallen many mining towns, once thriving but now running the risk of becoming ‘ghost towns’ like Kleinzee<sup>10</sup> in the Northern Cape.

What should therefore preoccupy the minds of future planners is how to ensure that once the developments that I have just suggested have taken place such towns remain thriving beyond the life of the said mines.

The challenge that is facing us today is not whether we will, as humanity, be able to replace dependence on finite resources with renewables. This we have already done for instance with the numerous alternatives for rubber, such as silicone. So, fossil fuels will ultimately be replaced with renewables; those that we already know, and those that we will discover through scientific innovation.

Instead, our challenge is how we create sustainable economic activities out of mining which will outlive that very mining. In this regard we need to study the models being put together by such countries as China and

---

<sup>10</sup> See <https://www.sa-venues.com/attractionsnc/kleinzee.php> (Accessed on 27 April 2019). Established in 1927 the town produced diamonds until around 2009 when De Beers downscaled and finally closed its operations in 2009. By 2011 most of the estimated 370 houses were empty, with the population having dwindled from 7000 to 1000

Qatar. Both are engaged in aggressive yet well planned post manufacturing and oil booms respectively.<sup>11</sup>

It is for this reason that this colloquium is important, bringing together the higher education sector, a specialised mineral research organisation, Mintek, the Department of Mineral Resources, and the industry.

### **The Need for Strategic Collaboration and Some Possibilities**

One hopes that out of this interaction will be born strategic collaborations that will help find solutions to some of the challenges facing us. It is therefore my submission that we stand ready as a university to contribute to the finding or formulation of those solutions.

The University of South Africa can indeed contribute at various levels relating to some of the possibilities that I outlined earlier.

First, our colleagues in the College of Law can be engaged to offer opinions on various areas that relate to transformation, and how the process of Mining Charter may be implemented.

---

<sup>11</sup> See for instance Li, S; Li, M; and Tan, J. J (1998) Understanding Diversification in a Transition Economy: A Theoretical Exploration, *Journal of Applied Management Studies*, Volume 7, Issue 1, pp. 77-94; and, Morakabati, Y; Beavis, J; and, Fletcher, J (2014) Planning for a Qatar Without Oil: Tourism and Economic Diversification, a Battle of Perceptions, *Journal of Tourism Planning and Development*, Volume 11, Issue 4, pp. 415-434

While indeed 'wrestling' with our own transformation issues as a university our attitude to transformation is simple: transformation is a non-negotiable imperative that is necessary to ensure that we are able to guarantee inclusive growth that favours all of our country's citizens.

The second area of possible collaboration can be in relation to economic analysis and forecasting.

I argued earlier that new mining prospects must be 'tied to' broader investments drive and spatial growth for targeted areas. This is where I believe our Bureau of Market Research, which is an industry leader, can contribute.

Lastly, our College of Science, Engineering and Technology, specifically the Department of Electrical and Mining Engineering, can share the expertise that resides with them. This is where practical collaboration with Mintek and the national department on scientific and technical enquiries can be explored.

Minister, I therefore wish to urge you that we must be able to have a detailed discussion, between ourselves as a university, Mintek, and the department; to explore these and other possible areas of collaboration.

It is against this possibility that today's colloquium is indeed exciting to me as it carries with it the seeds of something bigger and innovative for the country.

We stand ready as a university to make some contribution to this; our national development.

On behalf of the Council, Management, Staff and Students of the University of South Africa, I wish to welcome you all.

Thank You!!!