



The Minerals Curtain

Against the backdrop of the upcoming Mining Indaba in Cape Town next week and rumours that the Department of Mineral Resources and Energy (DMRE) will use that platform to announce the adoption of a new fit-for-purpose cadastral system. [Xpotential Mining Services](#) Managing Director [Joshua Kilani](#) provides some insight on the current state of South Africa's mineral license administration.

South Africa is host to over 50 mineral commodities which include; the largest known reserves of PGM's globally, gold production that accounts for approximately one third of all gold produced on earth, diamond production that places the country in the top five diamond producers and a competitive iron ore industry that attracts high demand due to uniquely high grades and exceptional physical qualities. Despite this mineral endowment, the country is underperforming in comparison to jurisdictions of comparable mineral resources. The fact that South Africa has now been overtaken as the leading African gold producing country by Ghana and only attracts 0.8% of global mining exploration investment has resulted in many viewing South Africa as an aging mining district and dubbing the local mining industry as a sunset industry. Although one could be tempted to hypothesize that South Africa's declining mineral productivity, output and sales are a natural result of declining finite mineral resources, the truth of the matter is that the South African Mining industry is fundamentally broken at the roots.

Mineral exploration is the first step in finding potential mines and is the sole feeder to a nation's mineral resources and mining sector overall. However for decades South Africa has misunderstood and neglected it's mineral exploration, culminating in legislative and regulatory regimes that have not differentiated nor distinguished large scale mining from junior exploration.

The most acute manifestation of this failure is the South African mining cadastre disaster, which is embodied by the South African Mineral Resources Administration System (SAMRAD).

A modern mining cadastre is a management and transparency tool provided on an online portal, that allows the public to access mining rights, exploration permits and geological features. A well-tailored cadastral system allows for more efficient and effective mine license administration, formalizing security of tenure and serving as the backbone of a country's exploration strategy.

South Africa currently does not have a fit for purpose cadastral system, despite the fact that a South African based company called [Spatial Dimension](#) is at the forefront of spatial data infrastructure and has established cadastres for over 20 countries in Africa including; Botswana, DRC, Mozambique, Namibia, Senegal, South Sudan and Zambia. Instead, the Department for Mineral Resources and Energy (DMRE) held out for many years opting to stick with their cumbersome SAMRAD system that remains reliant on human input, this decision has cost South Africa millions of rands in investments due to backlogs and serious delays for the application and granting of exploration and mining rights. Most speculators assume that the hesitancy shown by the DMRE to provide a comprehensive solution to this blatantly pressing industry issue is part of an attempt to draw the curtain on incompetence and corruption within licensing processes. The opacity levels of the current system are unacceptable in terms of modern ESG standards and the opacity is particularly acute within the South African coal industry. With the impending adoption of a functional cadastral system the curtain will have to be pulled back and one can only speculate on what irregularities may be found.

The Minerals council of South Africa were instrumental in gently prodding the DMRE to adopt an off the shelf cadastral system, however the Minerals Council has historically been ineffective in convincing the DMRE to take any course of action. In the late 90s this ineffectiveness was mainly due to intransigence on The Minerals Council (Chamber of Mines) part. However, under Roger Baxter they have adopted a more diplomatic stance geared to better understand the viewpoint and driving motivations of the DMRE, detractors of the current Minerals Council however believe they have gone to the other extreme and are too soft, particularly on critical, technical issues such as the cadastre disaster which has done irreparable damage to the industry. Another stakeholder who may have influenced decision making on the cadastral issue is the Council for Geosciences who to their credit have ensured that the underlying geoscientific data is available and ready to support the new system.

However, in future it would be beneficial for the industry to see less degrees of separation and more integration between the Council for Geosciences and the DMRE. Hopefully a new cadastral system will allow the Council to more closely work with the DMRE as the cadastral data custodians.

Cadastres are Tools for Improved ESG

In conclusion it is important to re-imagine spatial data in South Africa through an ESG lens and the integration of such data towards comprehensive and holistic license management that can support sustainable development. Digital information about licenses is central to modern sustainability accounting by improving the monitoring capability and allowing for greater environmental protection of ecologically sensitive areas such as wetlands and grasslands. Furthermore, mineral resources are to some extent a public-good making transparency of data an integral part of stakeholder engagement and good governance that will attract investment, reignite new mineral discoveries and pave the way for a national mineral prosperity.

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