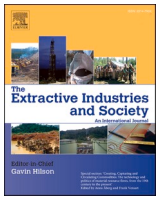
The Extractive Industries and Society 22 (2025) 101611

Contents lists available at ScienceDirect

The Extractive Industries and Society

journal homepage: www.elsevier.com/locate/exis



Original article

Mineral resource exploitation and landownership rights: Understanding the 'doctrine of custodianship' in minerals and mining legislation in South Africa

Moshood Issah [a], Lanre Abdul-Rasheed Sulaiman [b,*], Abdullateef Raji [a], Fatima Aliu [c], Ridwan Olabisi Yusuff [a], Salihu Zakariyyah Abdulbaqi [a], Sunday Joseph Akor [a], Nurudeen Adesola Malik [d]

[a] Department of Sociology, University of Ilorin, Ilorin, Nigeria
[b] Department of Sociology, University of Pretoria, South Africa
[c] Department of Political Science, University of Ilorin, Ilorin, Nigeria
[d] Department of Geography and Environmental Management, University of Ilorin, Ilorin, Nigeria

ARTICLE INFO

Keywords:
Minerals
Mineral resources
Landownership
Landownership rights
Custodianship

ABSTRACT

Legislation and policy frameworks on mineral resource exploitation and landownership rights in South Africa were heavily influenced by the Roman-Dutch law. These legal frameworks changed from 1795 with the annexation of the Cape by the British, and the discoveries of Gold and diamonds in the 19th century in South Africa. Expectedly, scholars have documented the evolution and development of mineral resources and landownership rights in South Africa. However, while there is interesting scholarship on mineral resource exploitation and landownership rights in South Africa, this scholarship fail to see mineral legislation from the perspective of eminent domain. Thus, this paper contextualized the doctrine of 'custodianship' as embedded in the Mineral and Petroleum Development Act of 2004 (MPRDA) within the conceptual framework of eminent domain. The paper uses discourse analysis to analyze historical and legal documents and academic literature. The analysis revealed that the doctrine of 'custodianship' as used in MPRDA connotes eminent domain. This is because the doctrine implies that nation's mineral resources are *res publicae* (belong to all South Africans, and the state is the custodian thereof). Looking at the notion of 'custodianship' in this way would open a new discussion on mineral resource discourse in post-apartheid South Africa.

1. Introduction

The ownership of mineral resources by the states is recognized by some international charters (Van den Berg, 2009; Perez & Claveria, 2020). For instance, according to the UNO's General Assembly Resolution 1803 (XVII) entitled 'Permanent Sovereignty over Natural Resources', every sovereign state has the right to dispose freely of natural resources in its geographical space and domain (Gümplová, 2021; Mantilla, 2024). Similarly, Duruigho (2006) and Gilolmo-Lobo (2022) stressed that every independent state has inalienable rights to prospect and mine natural resources under its belly for the general good of its citizens. This is also echoed by Elian (1979). According to the author, it is important to allow the sovereign state to remove natural resources from private or communal ownership in accordance with international laws. In addition to this, Elian (1979) argued that the state has ultimate right to intervene legislatively and in a juridical manner, the purpose for which the natural resources lie within its belly should/are exploited and utilized (See also, Loperena, 2022).

In South Africa, recognition is also given to the state's ownership of mineral resources (Schmidt, 2023). Specifically, the Preamble and Section 2(a) of the Mineral and Petroleum Resources Development Act (MPRDA) recognized, in line with internationally accepted standard on state's resources, sovereignty of the South African-state over its mineral and petroleum resources (Morolo, 2023). This section states that "permanent sovereignty over natural wealth and resources is a basic constituent of a state's right to self-determination" (van der Berg. 2009). While linking this international philosophy and policy standard to the South African context, van der Berg (2009) opined that it is clear from

* Corresponding author.
E-mail address: u24141072@tuks.co.za (L.A.-R. Sulaiman).

https://doi.org/10.1016/j.exis.2025.101611
Received 28 June 2024; Received in revised form 2 January 2025; Accepted 2 January 2025
Available online 12 January 2025

the White Paper 1.3.6.1(i) that South African government has inalienable rights over the exploration and exploitation of natural resources within its geo-spatial domain. In this paper, reference is made to article 2 (1) of the UN Charter of Economic Rights and Duties of the State. This article grants sovereignty over natural resources to state. It is also emphasized that the South African state cannot operate under dual ownership of the nation's mineral resources with the private individuals (Tlale, 2020; Greyling, 2021). Similarly, Section 2(b) and Section 2(c) (i) of the MPRDA state that the state has the power to guide the use and exploitation of mineral resources to facilitate equitable access to the nation's mineral resources (Mothudi, 2023).

Also, Sections 3, 4 and 5 deal with the New Order of Rights to Minerals, where every rights is vested in the state (Msezane, 2023). However, in the exercise of this right, the state must be conscious of the environmental implications of prospecting and mining for mineral resources. This concern is addressed in Section 3(3) of the Act where it is stated that mineral resources exploitation must be done in ecologically sustainable manner (Ntsanwisi, 2021). This subsection denotes that while the Act emphasizes the exploitation of the nation's mineral wealth for socio-economic development, it must be done in environmentally conscious manners (Mugo, 2021). That is, the provisions of national environmental legislation on mineral resource exploitation must be strictly adhered to (Mugo, 2021). Moreover, Section 37(2) states that all prospecting and mining activities must be "conducted in accordance with generally acceptable principles of sustainable development by integrating social, economic and environmental factors into the planning and implementation of prospecting and mining projects in order to ensure that exploitation of mineral resources serves present and future generations" (Fanyane, 2023). Also, Section 5(1) states that "prospecting rights, mining right, exploration rights and production rights are 'limited real rights regarding mineral and petroleum resources" (Massyn, 2023). This implies that state has inalienable right over the nation's mineral resources.

From the above exposition, it is evident that the MRPDA is fashioned out, in theory, in line with the international practices of mineral resource ownership (Ndlazi, 2022). This is controversially reflected in its doctrine of 'custodianship' as against the doctrine of 'authorization', which was embodied in the Minerals Act 50 of 1991 (Masutha, 2022). However, there are two fundamental concerns that still remain unaddressed within the context of MPRDA. These are: first, the 'practical implication' of the concept of 'custodianship' as embedded in the MPRDA (Joynt, 2021). The apparent failure to address this has led to an intense debate among scholars on the applicability of the doctrine of 'custodianship' in mineral resources ownership in relations to the severed and unsevered minerals (Mostert, 2012; van der Berg' 2009; Ndlazi, 2022; Masutha, 2022; Fanyane, 2023). Second, as stressed by van der Berg (2009), the notion of 'custodianship' is not synonymous to nationalization. The word custodianship, as used in the Section 3 of the Act, remained shrouded in obscurity (van der Berg, 2009). Its lack of clarity has generated critical discussions in mining-related discourses among scholars and legal practitioners in South Africa (Mugo, 2021).

Also, literature on 'custodianship' as explicitly embedded in the MPRDA did not see it from the perspective of 'eminent domain', the power of the state to expropriate individually or privately-owned property for public use. Importantly, previous scholarship on the notion of 'custodianship' viewed it from the legal and constitutional perspectives (Van der Schyff, 2012; Mostert, 2012; Masutha, 2022; Joynt, 2021). Discussions on the notion of 'custodianship' from the socio-scientific perspective and from the theoretical lens of eminent domain are still inadequate. Therefore, the objective of this paper is to critically analyze the notion of 'custodianship' in the MPRDA from the 'socio-scientific' perspective, based on the theory of eminent domain. This critical analysis would generate new understanding of the doctrine of 'custodianship' as used in the Mineral and Petroleum Development Act (MPRDA). Thus, this paper is divided into three sections. The first section deals with the conceptualization of eminent domain discourse. The second section examines the nexus between the notion of 'custodianship' and eminent domain. Finally, the third section addresses the concept of 'public trust' doctrine within the legal and constitutional context of MPRDA. The key research questions are as follows:

i. What is the nexus between the notion of 'custodianship' and eminent domain in South Africa?
ii. What is 'public trust' doctrine within the legal and constitutional context of MPRDA in South Africa?

2. Literature review

2.1. Eminent domain: a conceptual discussion[1]

Eminent domain is often used as a 'concept', as well as a 'theory'. In this paper, it would be used as a concept. It should be pointed that eminent domain, as both concept and theory, has long historical tradition (Patgiri, 2024). In this paper, a conceptual discussion of the concept of eminent domain would be discussed. Historically, the term eminent domain was taken from the legal treatise '*De jure Belli et Pacis* (On the Law of War and Peace), written by the Dutch jurist Hugo Grotius[2] in 1625 (Kratovil & Harrison Jr, 1954). Grotius used the term '*dominium eminens*', which was translated as 'Supreme Lordship". By this term, he means:

> the property of subjects is under the eminent domain of the state, so that the state or he who acts for it may use and even alienate and destroy such property, not only in the case of extreme necessity, in which even private persons have a right over the property of others, but for ends of public utility to which ends those who founded civil society must be supposed to have intended that private ends should give way. But it is to be added that when this is done the state is bound to make good the loss to those who lose their property (Kelly, 2006).

He mentioned further that eminent domain is not limited to real property; it also extends to the personal property. By extension, he asserted that private property "can be taken in two ways, either as a penalty, or by the force of eminent domain" (Kelly, 2006). As a matter of emphasis, Grotius places limitation on eminent domain when he submitted that it can only be used for a public advantage; then, that compensation from the public funds be made, if possible, to the one who lost his right (Crusto, 2021).

Another historical contributor to the conceptual discourse of eminent domain was Samuel von Pufendorf. His contribution was contained in his book entitled "Of the Law of Nature and Nations", which was published in 1672.[3] In this book, Pufendorf maintained that eminent domain is a critical ingredient and attribute of a sovereign state, and without it, no sovereign state would survive and fulfill its fundamental objectives of state formations. According to him:

[1] According to Merriam Webster, eminent domain is "a right of a government to take private property for public use by virtue of the superior dominion of the sovereign power over all lands within its jurisdiction".

[2] The power of the sovereign to take private property for public use (called in America Eminent Domain – an expression believed to have been first used by Grotius) and the consequent rights of the owner to compensation are well – established. In justification of the power, two maxims are often cited: *salus populi est suprema lex* (regard for public welfare is the highest law) and *necessitas republica major est quam private* (public necessity is greater than private necessity). A critical examination of the various stages of evolution of this power and its ethical basis will serve no useful purpose as the power has been established in all civilized countries (Tenth Report on Law Commission of India, 1958:1) cited in Bhatta (2015:46).

[3] Exactly 47years after Hugo Grotius' iconic publication on dominion power of the state.

> The sovereign power…was erected for the common security, and that alone will give a prince a sufficient right and title, to make use of the goods and fortunes of his subjects, whenever necessity requires; because he must be supposed to have a right to everything without which the public good cannot be obtained" (Albonesi, 2011:60).

Subsequently, Cornelius van Bynkershoek added to the historical discourse of eminent domain. Bynkershoek, in his article entitled "Questions of Public Law (1737), stated:

> … that authority by which the sovereign stands out above his subjects jurists call the right of eminent or pre-eminent domain … This eminent authority extends to the person and the goods of the subjects, and all would readily acknowledge that if it were destroyed, no state could survive. Through this power … even the property of individuals may be appropriated if the sovereign sees fit (Albonesi, 2011:60).

This implies that the property rights could be subordinated and relegated to the needs of the public (community) (Caretta & Carlson, 2023). Also, Baron de Montesquieu, in his The Spirit of the Law (1748) buttressed that there would be occasions "when the public has occasion for the estate of individual" (Albonesi, 2011:60). What this means is that there would be instances where the collectivity (community or public) would need the private property for common good, and this would be facilitated by the sovereign state (Lehavi, 2021).

Contemporarily, Aramian (2010) viewed that eminent domain is an essential tool of the state in fulfilling its fundamental functions required for the functional society and socio-economic well-being of the citizens. He viewed that "eminent domain is the power possessed by the state over all property within its jurisdiction, specifically the power to appropriate property for a public use. In some jurisdictions, the state delegates eminent domain power to certain public and private entities, such as utilities" (Aramian, 2010:2). Albonesi (2011:9) added that the "… the importance of a power of compulsory acquisition to achieve the aims of government, and the imperative that all affected individuals receive full compensation when this power is exercised" (Quick, 1901: 640–642).

In a broader perspective, Chen and Yeh (2014:3) viewed that "if governments simply regulate and restrict certain property rights, such as environment protections that restrict the ability to develop land, the regulation can be considered a taking". To Perry (2016:144) "eminent domain is a power granted to the government to take privately owned property for the good of the public". He added that "there are times when public projects infringe on the rights of individual persons, times when the government, to make an improvement for the good of all, must exercise eminent domain…" (Perry, 2016:163). It can be surmised that no political community can be built on sustainable basis if some sections or individuals are extremely richer and propertied than the rest. The ultimate role of eminent domain in this regard is to ensure equity and justice in access to public goods (Klass, 2020; Mao & Qiao, 2021; Pennington, 2024).

However, in South Africa, there is a relative silence on the notion of eminent of domain to the point that one would think it never exists in the country's mineral legislation and policy framework. As a matter of emphasis, elements of eminent domain are entrenched in South African mineral laws. Historically, they were implicitly embedded in the mineral laws of the pre-Union and post-Union era. For instance, the rights to prospect and mine important minerals, such as precious metals, precious minerals and natural oil, were exclusively reserved to the state for collective good. Also, in the Minerals Act 50 of 1991 introduced the notion of 'authorization'. This notion, in application, implicitly means 'eminent domain' because the South African-state has inalienable rights to authorize mineral resources exploitation provided that the requirement of public use is meant by the prospective mining corporations. Essentially, the concern of this paper is to situate or contextualize the doctrine of 'custodianship' as embedded in MPRDA within the conceptual premise of 'eminent domain'. The next section would address the connection between the notion of 'custodianship' and the concept of eminent domain in term of the philosophy of *res publicae*.[4]

3. Methodology

The study was based on PRISMA framework as relevant studies and reports on mineral resource exploitation and landownership rights in South Africa were searched. In other words, peer reviewed articles from Google Scholars and relevant reports were searched and gathered for inclusion. The study followed seven steps. How the seven steps were applied is shown in Fig. 1. From the Google Scholars, peer-reviewed articles were gathered. Certain keywords were used such as Mineral Resource Extraction OR Mineral Resource Exploitation and Landownership Rights AND Mineral Resource Exploitation, Mineral Resource Exploitation AND Landownership Rights among others.

On inclusion and exclusion criteria, only studies and reports on mineral resource exploitation and landownership rights in South Africa were included. Also, only studies and reports written in English Language were included in this paper. It should be noted that both historical and contemporary papers on mineral resource exploitation and landownership rights in South Africa were included to understand the historical trends and contemporary issues in mineral resource exploitation and landownership rights in South Africa. A total of 20 peer-reviewed articles and documents were included in this study. Relevant data were extracted from each of them; and then analysed and conclusions and recommendations were drawn.

4. Results and discussion of findings

4.1. Analyzing res publicae and 'custodianship' in the MPRDA from the perspective of eminent domain

In term of the Section 3(1) of the MPRDA, there is uncertainty in respect to 'who owns' the unsevered[5] minerals (Fanyane, 2023). It cannot be said with out-right precision that the Section denotes that the mineral and petroleum resources, that are unsevered, are owned by the South African-state. Consequently, scholars and legal practitioners have debated on what constitute the correct interpretation of the Section (Massyn, 2023; Ndlazi, 2022). Some scholars noted that, in terms of the Section, the state owns unsevered minerals (Badenhorst & Mostert, 2008; Badenhorst & Mostert, 2007; van Der Schyff, 2012). They supported their argument by quoting Section 5(1) (a) of the MPRDA. According to this Section, "a prospecting right, mining right, exploration right or production right is a limited real right in respect of the mineral or petroleum and the land to which such right relates" (van den Berg, 2009:142). By limited real right, it means the state has full dominium over mineral and petroleum resources (Masutha, 2022).

However, other scholars disagreed (Massyn, 2023; Ndlazi, 2022; van der Schyff, 2006; van der Schyff, 2012; Van der Walt, 2008; Van der Walt, 2011). They argued that the MPRDA is not explicit on the question on the ownership of unsevered minerals. So, it would be illogical, illegal and erroneous to argue that the state has full dominium over it (Massyn, 2023; Ndlazi, 2022; van der Schyff, 2006; van der Schyff, 2012). They viewed that if the state owns the unsevered minerals, it signifies loss of ownership of the land for the landowners (van der Schyff, 2006; van der Schyff, 2012). It would be recalled that those who argued that the state owns the unsevered minerals substantiated their argument by the fact that MPRD nullified *cuius est solum*[6] doctrine. This may be untrue. While

[4] Nation's natural resources belong to the entire citizens of a particular political community

[5] Unsevered minerals are minerals undergrounds (not yet exploited)

[6] The owner of land is also the owner of the mineral resources underground and on the surface

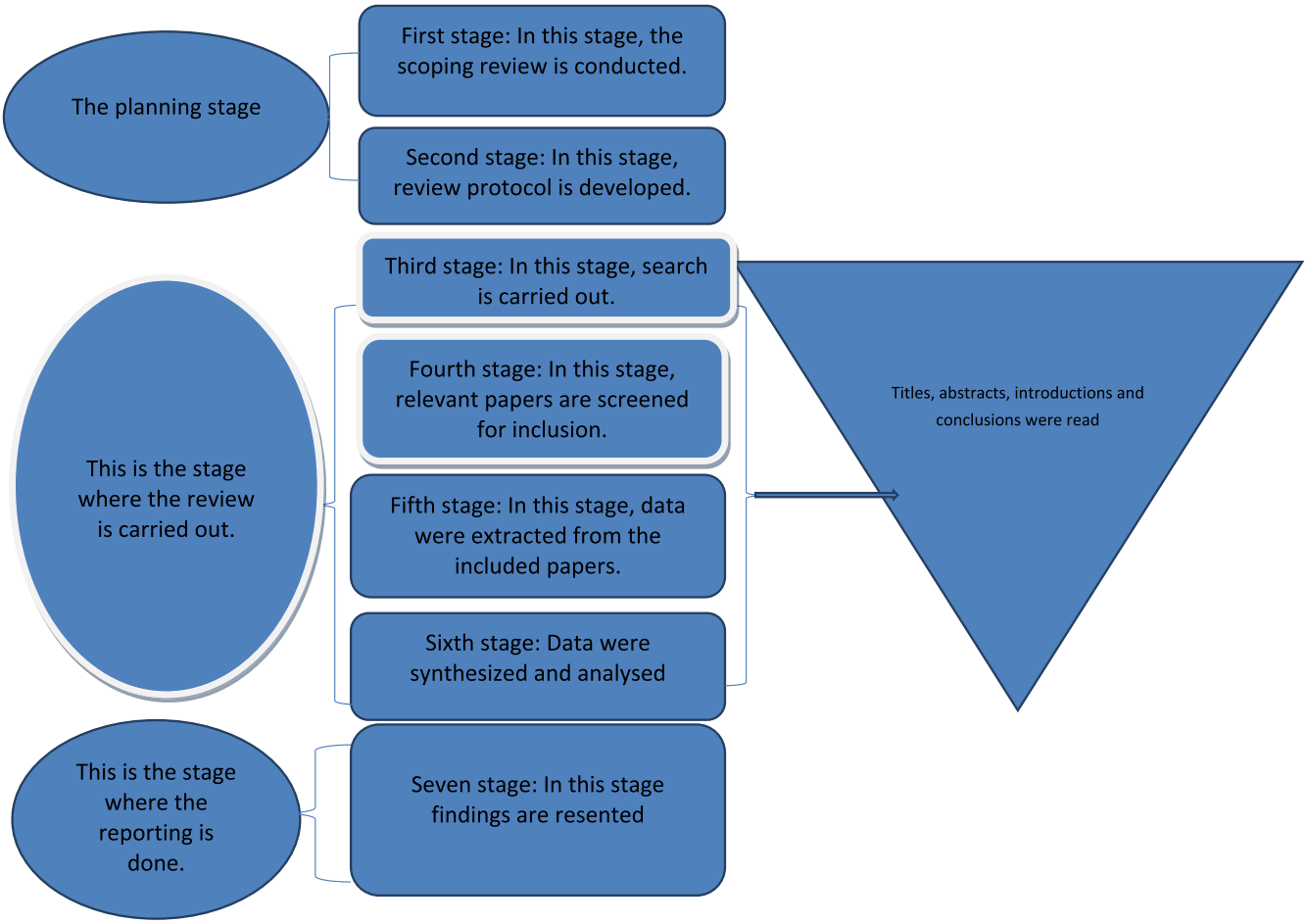


Fig. 1. Research process.

nullification of *cuius est solum* justified separate ownership of severed and unsevered minerals, it did not mean that the state has full dominium over both severed and unsevered minerals (Joynt, 2021). Custodianship and ownerships are not synonymous; thus they should not be used interchangeably (van den Berg, 2009). According to Badenhorst and Mostert (2008), the provision of Section 3(1) of the MPRDA only appeared at the 'face value' to mean the state has 'real rights' to unsevered minerals; while in reality, the real rights are not vested in the state. They maintained that the intention of the Section was to ensure equitable access to the country's mineral resources to all South Africans in the interests and benefits of the entire nation (van den Berg, 2009; Mugo, 2021).

Another view is that since the collective wealth is used in the MPRDA, it may follow that the Section implies that mineral and petroleum resources belong to all South Africans, not the state (Ntsanwisi, 2021). And since it did not specifically mention that they belong to specific individuals, it can be logically argued that the owners of surface land own the unsevered minerals underneath his land (van den Berg, 2009). Scholars that hold this view stressed that the doctrine of *cuius est solum* had not been abrogated by the MPRDA if we view it from the theoretical context (Msezane, 2023; Badenhorst & Mostert, 2004). In his comment on this argument, van der Berg (2009) argued that "this view is anomalous, since … the nation cannot be a legal subject in private law or public law, therefore the collective wealth of mineral and petroleum resources cannot vest in a non-existing entity".

Fundamentally, another plausible interpretation of this Section is that the architects of the MPRDA viewed the nation's mineral and petroleum resources as *res publicae* (Mothudi, 2023; Badenhorst & Mostert, 2008). *Res Publicae* denotes resources own by the state, "but for the benefit of and available for use by the public" (van der Berg, 2009). Additionally, "*res publicae* belong to the inhabitants generally, but that the state controls it for the benefit of the inhabitants". Badenhorst and Mostert (2004) noted that "*res publicae* are things that belong to an entire civil community, although not in private ownership". To van der Berg (2009), "*res publicae* are things that belong to the state in public ownership and that the state controls it for the benefit of the community as a whole". The state is able to enact legislation to impose restriction on the *res publicae*.

Interestingly, the *res publicae* discourse had been criticized by some scholars. The first point of criticism of *res publicae* discourse is its historical premise which its supporters used as a point of departure for their argument (Greyling, 2021; Tlale, 2020). To them, mineral resources were not considered or viewed as *res publicae* in Roman law or Roman-Dutch Law (Badenhorst & Mostert, 2004). Therefore, the argument favouring *res publicae* discourse is considered as lacking historical parlance (Greyling, 2021). However, some scholars countered this criticism or view (Morolo, 2023; Badenhorst & Mostert, 2007). They noted that it is not necessary for the whole gamut of the doctrine of *res publicae* to be captured by the Roman law or Roman-Dutch Law. According to them, it might have been a new interpretation of the Roman law or Roman-Dutch law (Morolo, 2023; Badenhorst & Mostert, 2007). To buttress this standpoint, they made reference to the National Park, water resources and environment that are situated within the doctrine of *res publicae* in contemporary South African law despite the fact that they are not known in Roman or Roman-Dutch law (Schmidt, 2023; Badenhorst & Mostert, 2007).

Based on *res publicae*-argument, mineral resources and petroleum resources underground and on the surface are considered collectively as

public property under the custodianship of the state (Plagerson & Stuart, 2024; Badenhorst & Mostert, 2007). To contextualize this argument, comparison was made between the nation's fishing resources and mineral and petroleum resources.[7] According to van der Berg (2009:139), "when one applies the *res publicae* argument to fishing resources, one might argue that the wealth of fishing resources is in fact a *res publicae* and the state controls it as a custodian for the benefit of the nation. This does not mean that the fish belong to the state in private ownership or that the fish are *res publicae"*. Van der Berg (2009) used the term 'collective wealth' to explain the doctrine of *res publicae.* So, the collective wealth accruing from the mineral and petroleum resources are actually belonging to all South Africans (van der Berg, 2009; Omidire, 2024). Similarly, van der Berg (2009) built on this argument with his analysis of 'collective minerals versus collective wealth'. Consequently, in respect to *res publicae* argument, Badenhorst and Mostert (2007) argued that ownership of the unsevered minerals could be said to have been vested in the public. Van der Berg (2009: 151) shared this view as well. According to him:

> … The discourse of *res publicae* applies to minerals. If it is accepted that collective mineral and petroleum resources are a *res publicae* and the state acquires public ownership thereof, the state is placed in a position to protect and regulate the collective mineral and petroleum resources. If, for example, somebody unlawfully mines minerals, the state should be able to use remedies available to an owner to either vindicate the minerals or to claim compensation for the value of the minerals.

Since, it is clearly stated in the Section 3(1) that mineral and petroleum resources are collectively owned by the people of South Africa, and the state is the custodian thereof, the argument that collective mineral and petroleum resources are *res publicae* may be true (Amponsah & Agyemang, 2024). But, to Badenhorst and Mostert (2007: 477) noted that "it is a *res publicae* that vest in the state as custodian, because the state is capable of bearing rights and duties, whereas the people of South African as an entity are not accorded any form of legal personality". Glazewski and Haward (2005) viewed that both severed and unsevered mineral belonged to the state. It would be recalled that under the MA of 1991, the holder of the mineral rights "had the right to remove and dispose of minerals found" (Section 5(1) of the Minerals Act of 1991). After the severance from the land, the minerals became the properties of the mineral rights holders. However, in the MPRDA, there is great ambiguity in this regards. According to van der Berg (2009: 151), "the new legislation affected rights to minerals in one of two ways: (a) rights to minerals are transferred to the state; or (b) private law mineral rights are destroyed". The first point indicates that minerals rights are vested in the state in public interest. Then, based on the doctrine of *nemo plus iuris,*[8] the state could transfer these rights to qualified applicants provided that such applicants would use it in such manners that would benefit the general public. This is typical of the public use requirement of eminent domain (Badenhorst & Mostert, 2007: 487; Kruger, 2024).

It should be noted that while the MPRDA does not acquire private ownership of the collective mineral and petroleum resources to state, the Act vests all rights to minerals to state (Tomaselli & de Wet, 2024). Thus, the state does acquire public ownership thereof, making the country's mineral resources a 'collective entity' (Khanyile & Marais, 2024). Therefore, the collective mineral and petroleum resources should, therefore, be considered *res publicae* (Stephani, 2024). The implication is that the state has regulatory control over unsevered minerals. As a result of this, no individual can possess a right to mineral. The state now controls these rights and can, by virtue of the provisions of the MPRDA, grant the rights to prospect and mine that flow from these rights (van der Berg, 2009: 139–158). He added that

> No person, including the owner of the land, may prospect for and mine minerals without being granted the necessary prospecting and mining right by the state. All rights that a landowner may have had with respect to the minerals contained in his land have been destroyed by the MPRDA…Section 3(1) of the MPRDA did in fact warrant a departure from classical private law theory with regard to the ownership of unsevered minerals. The MPRDA brought an end to mineral rights in the private sphere and placed all rights to minerals under the state's regulatory control. The state, therefore, controls all rights to minerals on behalf of the nation and has the capacity to transfer the prospecting and mining rights flowing from those rights upon private entities" (van der Berg, 2009;152–153).

However, the state can give this right to private individuals or corporations, provided that such individuals or corporations would use such rights in public interests (Erasmus & Potgieter, 2024). It should be noted that the state could withdraw this right if the recipients of this right did not use such rights in such manners that would generate socio-economic development for all South Africans (Kuipa & Lekunze, 2024). This is based on the principle of *maxim nemo plus iuris ad alium transferre potest quam ipse habent,*[9] which implies that giving private individual mineral rights does not mean that the state loses its right to ownership. This is typical of eminent domain where state took mineral rights of landowners and gave it to third party in order to facilitate mineral resource exploitation for public use (Erasmus & Potgieter, 2024). This implies that the public-use requirement is sacrosanct before the issuance of mining permits to prospective mining corporations (Stephani, 2024).

Implicitly, scholars have argued in favour of publicness of mineral resources exploitation. For instance, Kirkwood (2006) argued that

[7] (De Beers Consolidated Mines Ltd v Ataqua Mining (Pty) Ltd and Others 13th December 2007 (Case No 3215/06) unreported (OPD)(38))

[8] The power of the state to transfer its right to any private individuals or corporations when certain conditions are met.

[9] According to van der Berg (2009:155), "in South Africa, up until 2002, mineral rights vested in the owner of the land. The entitlements flowing from this right, that is, rights to prospect and to mine were, however, subjected to control by the state in terms of various legislative measures. In 2002, with the introduction of the MPRDA, private law mineral rights were destroyed and new rights to minerals were created that vest in the state in public ownership. Because of the proprietory nature of rights to minerals, the ownership of unsevered minerals also vests in the state, but in public ownership. The state, as a custodian of the *res publicae,* can grant the new rights to prospect and mine created by the MPRDA". Dale et.al. (2007:125) cited in van der Berg, 2009 noted that "the new system of public law powers on the one hand, and the common law powers and competencies which previously vested in the owner and the holder of the mineral rights on the other, are mutually exclusive". The argued further that "the owner and mineral right holders are expropriated: powers and competencies of the owner and mineral right holder are destroyed and similar powers are vested in Minister, the relevant rights vest in the holder of the new statutory rights". De Beers Consolidated Mines Ltd versus Ataqua Mining (Pty) Ltd and Others 13th December 2007 (Case No 3215/06) unreported (OPD)(62): "whereas the Minerals Act regulated existing private law rights, the MPRDA destroys the common law rights and creates rights granted by the Minister". According to van der Berg (2009:154), mining rights concerning unsevered minerals "have been taken out of private hands, and that such rights vest in the custodianship of the state". These quotations were challenged and described as anomalous and misleading. "… MPRDA does not only create new mining and prospecting rights, but in fact create new rights to minerals. The latter vests in public ownership in the state as custodian; while the state receives the power to grant the former as new rights to a holder. The Act cannot destroy mineral rights without recreating it as rights to minerals, since these rights form the basis of the prospecting and mining rights" (van der Berg, 2009:154). "Adherence to *nemo plus iuris* – rule is not necessary, since the rights to minerals do not vest in the state in private ownership. The holder of the mining right or mining permit becomes the owner of the severed minerals through certain statutory rights granted to him by the state" (van der Berg 2009:155).

mineral resource exploitation has inherent capacities to enhance the development of local economies, increase the deployment of modern technologies and rapid infrastructural developments in local communities. The thinking of Kirkwood is that mineral resource exploitation would facilitate the construction of developmental projects, such as new road networks, rural electrification projects, and other social amenities that would be of immense significance to local communities. According to him,

> In 2006, South Africa's Department of Minerals and Energy estimated there were a total of 118 separate mining or quarrying operations. These operations generate demand for domestic goods and services, earn foreign exchange, employ labour, attract foreign direct investment, impact local communities through healthcare investment, education and training and contribution to local municipalities while generating revenue for the state through direct and indirect taxation (Kirkwood, 2006: 21).

Azapagic (2004) argued that mining activities are important sources of employment, either directly or indirectly for South Africans. This is very important to the post-Apartheid South Africa, where level of unemployment is very high, especially in the formal homelands (Tom, 2015; Marais, 2020). Similarly, Bebbington et al. (2008) stressed that mining has contributed enormously to the economic growth and development of both developed and developing countries through its macro and micro economic advantages. As noted by Bebbington et al. (2008) mining operations could bring about increase in Gross Domestic Product, increase employment opportunities, development of basic economic infrastructure. These are vital for sustainable national development. Rodrik (2008) seems to have convinced that mineral resource exploitations have contributed significantly to economic growth and development in South Africa since the fall of apartheid. This may be connected to the adjustments made to the mineral laws dispensations in the post-apartheid South Africa. Sharaky (2014) stressed that mineral resource exploitation has been, mostly by the states and mining corporations, regarded as the basis of development and facilitator of economic growth. He added that mineral development is one of the veritable tools in poverty alleviations, which is considered critical for a country that more than 50 percent of its populations are below the poverty line (Sharaky, 2014). This is most typical of post-1994 South Africa. McCarthy (2011) opined that South Africa is enormously endowed with mineral resources, and this has translated in rapid and sustainable socio-economic development (See also, Cawood & Oshokoya, 2013; Odeku, 2015) (Fig. 2).

To Tom (2015), mineral resource exploitation could serve a catalyst to evolution and development of towns and cities. For instance, in South Africa, Rustenburg, in the North West Province, owed its rapid development to 'big' town to the mining activities in the region (Tom, 2015). Also, in Zimbabwe, many towns lying on the Great Dyke developed into modern cities through large-scale resource extractions in the surrounding areas (Hilson, 2002). In addition to this, mining can also facilitate the growth small businesses, such as catering, transport and cleaning services (Tom, 2015). Moreover, Hilson (2002) argued, while commenting on the negative socio-economic and environment impacts of mining, mining activities cannot be all totally destructive to the local communities. Of course, there are instances where mining activities have contributed significantly to the socio-economic development of the local communities, particularly in the areas of infrastructural development, such as constructions of roads, hospitals, schools, housing and other developmental community projects (Hilson, 2002; Marais & de Lange, 2021). He added that royalties and other revenues derived through mining activities can be used for developing local communities (Hilson, 2002; Akinbami et al., 2021). According to Tom (2015), without the exploitation of platinum, the production of dental equipment, jewelries, auto catalyst, among other might be impossible. Similarly, without the extraction of Gold, the jewelries, Gold coins, electronics, among other might be in low supply (Hilson, 2020) (Fig. 3).

At this juncture, it is imperative to establish a convergence between *res publicae* and public trust doctrines. According to van der Berg (2009: 157),

> These two concepts are theoretically on equal footing, since their purpose and legal consequences are similar. The only difference is that the principle of *res publicae* is indisputably accepted as part of South African law, while the 'public trust' doctrine, until recently, has been unknown in South African legal system.

Considering the theoretical similarity between the two doctrines, the next section discusses the doctrine of public trust within the context of MPRDA.

4.2. Understanding public trust doctrine within the context of MPRDA[11]

The 'public trust' doctrine was said to have evolved from, and pervaded the Anglo American Jurisprudence (van der Schyff, 2006). In contrast, scholars argued that the concept of 'public trust' originated in the Roman and English Legal system in relations to "property rights in rivers, the sea and the sea shores" (Nwaila, et al., 2021; Sax, 1970; Glazewski & Haward, 2005; Stevens, 1980; Hannig, 1983). According to van der Berg (2009: 157), "under Roman law, certain interests were sought to be preserved for the benefit of the public, for example, navigation and fishing". These two were distinguished from general public property which could be granted to private individuals (Sax, 1970). As noted by Kleinsasser (2005), in Roman state, properties were referred to as *res communes*.[12] This implies that properties, including mineral resources, are owned by the public, while the state acts as a custodian thereof. The evolution of the notion of public trust doctrine seems to be less important. What are most important are the theoretical and practical implications of this doctrine in sovereign state. Therefore, divergent and convergent views of scholars on the applicability of the doctrine of 'public trust' in resource development would be presented and analyzed.

While discussing the applicability of 'public trust' doctrine in resource development, Sax (1970) viewed that the essence of the notion of the 'public trust' is to address management challenges that often associated with natural resources. For example, the perplexing questions of 'who owns' what in most sovereign states could be addressed through the notion of 'public trust' doctrine (Sax, 1970). Similarly, Hannig (1983) put that the doctrine is premised on the fact that public interest over natural resources should prevail and the state should be the 'trustee'. Hannig (1983) noted further that in the interest of collective development, the state should take absolute ownership of the state's resources. Also, Ryan (2001) added that the notion of 'public trust' doctrine is necessary for the exploitation and utilization of the state's resources for economic development of a sovereign state. Ryan (2001) reasoned that if state fails to take absolute ownership of resources in within its boundary, the goal of even development may not be achieved, as some sections of the state that are endowed with resources may develop more rapid at the expense of other sections.

Van der Walt (2005) applied the notion of 'public trust' doctrine to the ownership of water resources in South Africa. He commented that

[11] Public trust doctrine has been applied in South Africa, such as in the National Environmental Management Act (NEMA) (Section 2(4)(0), 28(5)(e) and Section 30(6)(d) of the NEMA Act 107 of 1998) and National Water Act (Section 3 of the National Water Act of 1998). For instance, in ("Hichange Investments (Pty) Ltd v. Cape Produce Co (Pty) Ltd t/a Pelts Products and others 2004 (2) SA 393 (E)418"), the Court ruled "that the environmental is held in public trust and the state is custodian thereof" (van der Berg, 2009:40). Also, in the "South African Shore Angling Association and Another v. Minister of Environmental Affairs 2002 (5) SA 511(SE) 525. The Court normally referred that when resources are held in public trust, the state acts as custodian.

[12] In application, it is similar to *res publicae*

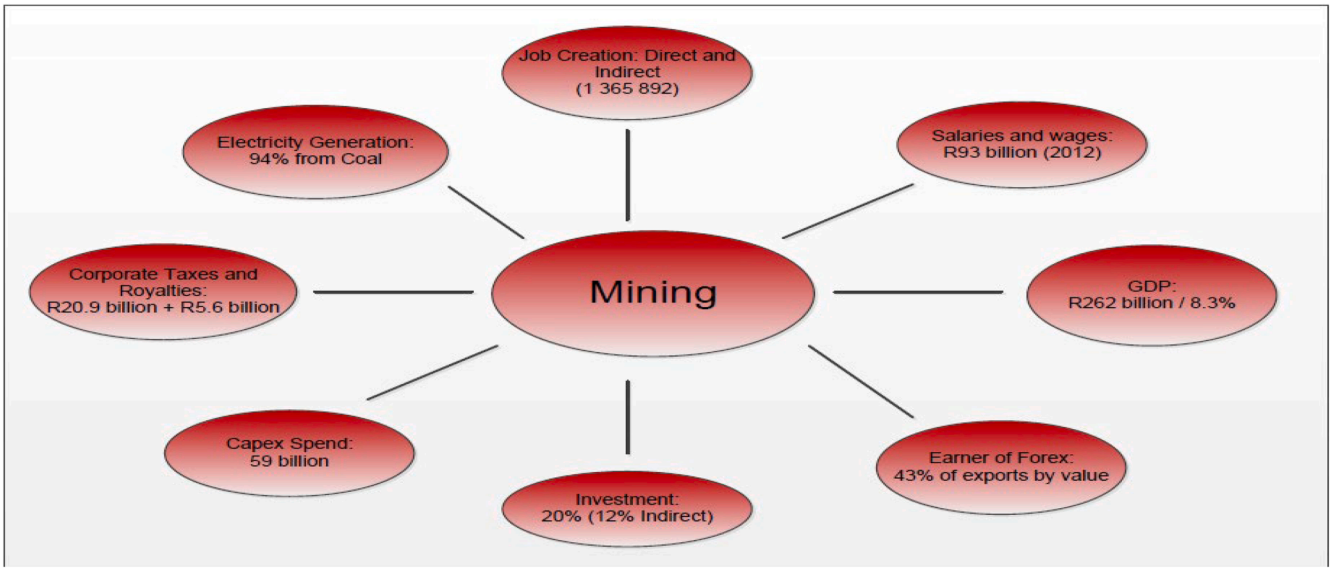


Fig. 2. Contributions of mining to the South African economy.[10]
Source: Chamber of Mines

[10] Chamber of Mines of South Africa, *Annual Report 2012*, (Pretoria: Business Print, 2012a).

the country's water resources are held in trust by the state for all South Africans. Furthermore, van der Walt and Walsh (2017:45) stressed that as a trustee, the state "has a responsibility for and authority over water resources to ensure sustainable water resources management, equitable allocation of water for beneficial use and redistribution of water". Also, Ryan (2001) linked the doctrine of 'public trust' doctrine to the environmental protection[13] in South Africa. According to him, with the application of the notion of 'public trust' to the environmental issues, it can be argued that every South African is entitled to decent environments. Going by this, it is the responsibility of the state to control and manage environment in the interest of the general public. It is viewed that if environment management is privately monopolized, the interest of the public is at risk (Plagerson & Stuart, 2024). Thus, Ryan (2001:479) concluded that the interest of the state's exercise of absolute power on the environment is to ensure environmental protection.

Also, the doctrine of "public trust" has been applied to mineral resources in South Africa (Glazewski & Haward, 2005; Schmidt, 2023). Badenshorst and Mostert (2008) argued that the concept of custodianship, as used in MPRDA is inappropriate and of no relevance since the state has exclusive rights over mineral and petroleum resource. Viewing from this analytical angle, it would not be impertinent to conclude that the state owns both unsevered and severed mineral and petroleum resources in the country. Also, within the context of MPRDA, Van der Walt (2005) stressed that some scholars viewed that the notion of 'guardianship' should rather use instead of the concept of 'custodianship'. They argued that the concept of 'guardianship' captures the intention of the legislation more than the concept of 'custodianship'. Also, they argued that concept of 'custodianship' could be best understood if we examine the power bestowed on the state by the Act (van Der Schyff, 2012; Khanyile & Marais, 2024).

[13] Section 24 of the Constitution of South Africa states that every person has inalienable right "to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that … secure ecologically sustainable, development and use of natural resources while promoting justifiable economic and social development".

5. Conclusion and practical implications of the findings for mineral resource management

5.1. Conclusion

This paper viewed the broader context of mineral resources exploitation and landownership rights within the conceptual prism of the doctrine of eminent domain. This broader context is important in understanding the historical and socio-legal context of the doctrine of 'custodianship' as embedded in MPRDA. Based on the review, it is evident that there are elements of eminent domain in the pre-Union, post-Union and post-Apartheid's legislation and policy frameworks on mineral resources exploitation and landownership rights in South Africa. For instance, in the pre-union, post-union, and republican epochs, important minerals, such as precious mineral (Gold, Silver and Platinum), precious stones (diamond) and natural oil were exclusively reserved for the state for 'public use'. In the Minerals Act 50 of 1991, 'the authorization', which means that before any prospecting or mining is initiated, the state had to authorize, connotes the exercise of eminent domain. This is because the state could only authorize if the prospective individuals or corporations would exploit the mineral resources for the good of the general public.

Essentially, the doctrine of eminent domain is also shown in the Mineral and Petroleum Development Act of 2004 (MPRDA). In this Act, the doctrine of 'custodianship' is used. Technically, this doctrine could be interpreted as 'eminent domain'. In application, the doctrine implies that the country's mineral resources belong to all South Africans, and the state is the custodian thereof. Therefore, the state could only grant mining rights to any prospective individuals or mining corporations on the condition that they would exploit the nation's mineral resources for the collective good of all South Africans. This is because the country's mineral resources are *res publicae* in public trust. Thus, the South African-state could only grant mining rights or permits to the prospective mining corporations on the conditions that: (i) the operations would lead to considerable socio-economic and infrastructural developments, which would benefit significant number of South Africans; and (ii) the operations would be done in manners that would not cause irredeemable

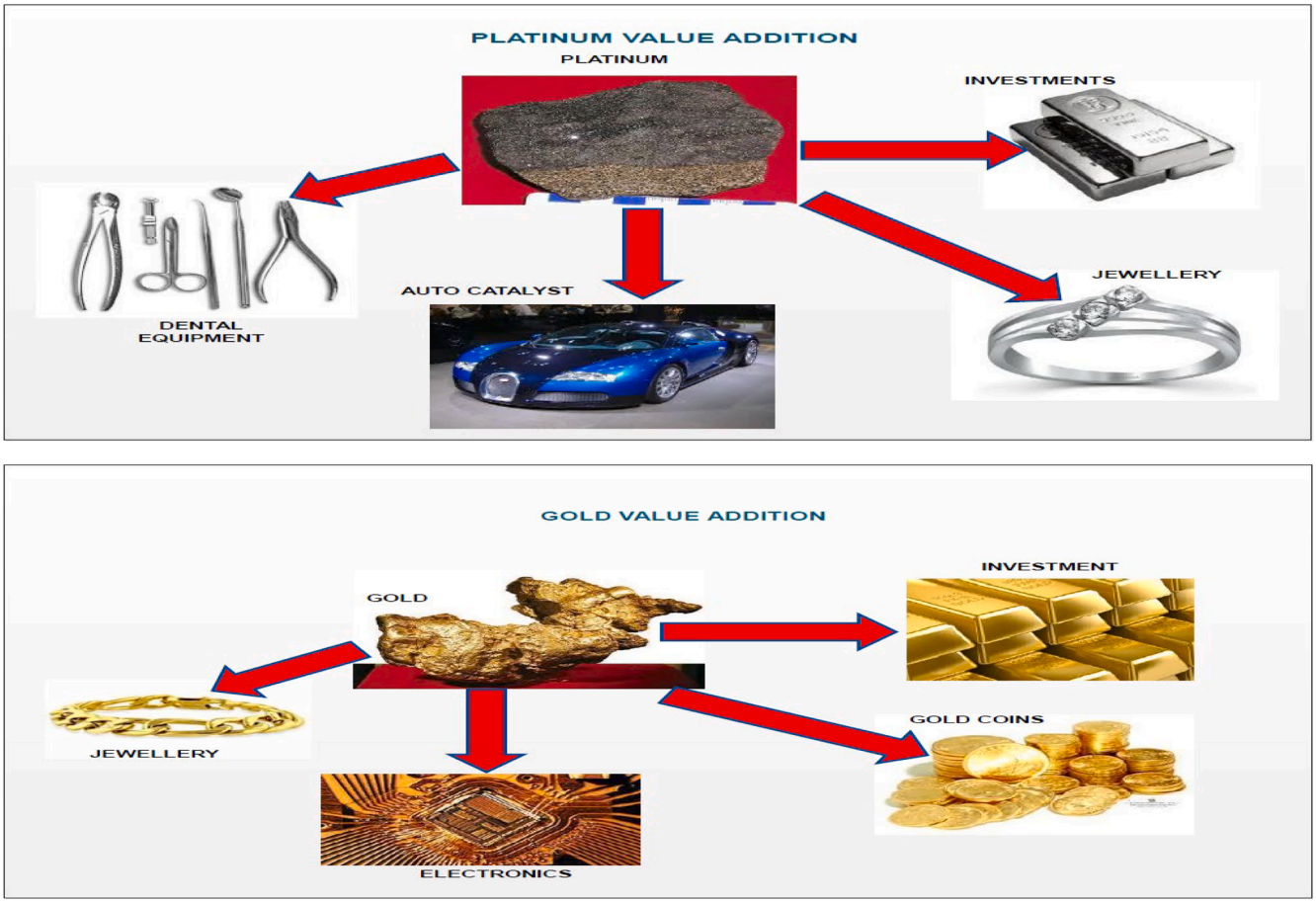


Fig. 3. Importance of mineral resources exploitation to collective development.
Source: Tom (2015)

destruction to the South African physical environment. Viewing the doctrine of custodianship from the perspective of eminent domain could generate a new understanding of this custodianship important provision in the Mineral and Petroleum Development Act of 2004 (MPRDA).

5.2. Practical implications of the findings for mineral resource management

The study has a number of practical implications for policy-makers and future research directions. The paper improves the understanding of mineral resource exploitation and landownership rights in contemporary South Africa, which is fundamental in the face of rising conflicts emanating from landownership rights and mineral resource exploitation. Policy-makers would find the findings and recommendations of this paper useful and timely in terms of findings lasting solutions to emerging mineral resource and land-related disputes and conflicts in the post-apartheid South Africa. To address the emerging contending mineral resource exploitation and landownership issues in the contemporary South Africa, policy-makers should address governance question. Currently, there are unequal power relations between South African government and private individuals and communities who own lands. The hegemonic mineral resource governance needs to be deconstructed through relevant policies to give voices to individuals and communities.

Deconstruction of the existing hierarchical and hegemonic structures in mineral resource governance suggests the application of a 'soft systems framework' -which is based on democratization and clumsification. The soft system model allows the incorporations of diverse perspectives in policy development and implementation. In other words, the adoption of soft system model makes policies on landownership and mineral resource governance more democratic and inclusive. Through soft system - argumentative system or deliberative democracy, collective and informed decisions and actions are taken in relations to mineral resource exploitation. It encourages adequate consultations and deliberations among key stakeholders to make informed and win-win decisions. While adopting this approach, South African government should be open and transparent during the consultations and deliberations. Failure to deconstruct the existing hegemonic mineral resource governance in South Africa would continue creating logjams, deadlocks and crisis of legitimacy in the governance of mineral resource.

However, the paper is more of conceptual than empirical in nature. Future studies should be more empirical rather than conceptual. In other words, primary data should be collected from relevant government officials, traditional leaders/rulers and members of the affected resource-rich communities and other relevant stakeholders using data collection tools such as in-depth interviews, Focus Group Discussions (FGDs), questionnaire among others. Also, the paper is broad as it covers the entire South Africa. Future research could consider more specific areas in the country because mineral resource and landownership policies are not monolithic in South Africa – there are variations across Provinces such as communal land, commonage land, and private land among others. Thus, future research should consider the existing peculiarities and complexities in landownership rights in South Africa.

CRediT authorship contribution statement

Moshood Issah: Writing – review & editing, Writing – original draft, Methodology, Investigation, Conceptualization. **Lanre Abdul-Rasheed Sulaiman:** Writing – review & editing, Writing – original draft,

Supervision, Methodology, Conceptualization. **Abdullateef Raji:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Fatima Aliu:** Writing – original draft, Validation, Methodology, Conceptualization. **Ridwan Olabisi Yusuff:** Writing – original draft, Supervision, Project administration, Methodology, Conceptualization. **Salihu Zakariyyah Abdulbaqi:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Conceptualization. **Sunday Joseph Akor:** Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Nurudeen Adesola Malik:** Writing – review & editing, Writing – original draft, Project administration, Investigation, Formal analysis, Data curation, Conceptualization.

References

Akinbami, O.M., Oke, S.R., Bodunrin, M.O., 2021. The state of renewable energy development in South Africa: an overview. Alex. Eng. J. 60 (6), 5077–5093.

Albonesi, S.H. (2011). Public opinion of the use of eminent domain for phase two of the cayuga waterfront trail.

Amponsah, E., Agyemang, F., 2024. Securing indigenous land rights through community engagement in South African mining communities: Lessons from international and national legislative and policy frameworks. Town Reg. Plann. 85, 64–80.

Aramian, G., 2010. Confiscation or serving the public good?. https://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=1423&context=etd.

Azapagic, A., 2004. Developing a framework for sustainable development indicators for the mining and minerals industry. J. Clean. Prod. 12 (6), 639–662.

Badenhorst, P.J., Mostert, H., 2004a. Revisiting the transitional arrangements of The Mineral and Petroleum Resources Development Act 28 of 2002 and the constitutional property clause: an analysis in two parts. Stellenbosch Law Rev. 15 (1), 22–51.

Badenhorst, P.J., Mostert, H., 2007. Ambit of mineral rights: paving the way for new order disputes?: regspraak. J. South Afr. Law/Tydskrif vir die Suid-Afrikaanse Reg 2007 (2), 409–422.

Badenhorst, P.J., Mostert, H., 2008. Duelling prospecting rights: a non-custodial second?: regspraak. J. South Afr. Law/Tydskrif vir die Suid-Afrikaanse Reg 2008 (4), 819–833.

Badenhorst, P.J., & Mostert, H.I. (2004b). Mineral and petroleum law of South Africa.

Bebbington, A., Hinojosa, L., Bebbington, D.H., Burneo, M.L., Warnaars, X., 2008. Contention and ambiguity: mining and the possibilities of development. Dev. Change 39 (6), 887–914.

Caretta, M.A., Carlson, E.B., 2023. Coercion via eminent domain and legal fees: the acceptance of gas extraction in West Virginia. Environ. Justice 16 (1), 36–42.

Cawood, F.T., Oshokoya, O.P., 2013. Considerations for the resource nationalism debate: a plausible way forward for mining taxation in South Africa. J. South. Afr. Inst. Min. Metall. 113 (1), 53–59.

Chen, D.L., Yeh, S., 2020. Growth under the shadow of expropriation? The economic impacts of eminent domain. Working Paper. ETH Zurich and George Mason University. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2977074.

Crusto, M.F., 2021. Game of thrones: liberty & eminent domain. U. Miami L. Rev. 76, 653.

Duruigbo, E., 2006. Permanent sovereignty and peoples' ownership of natural resources in international law. Geo. Wash. Int'l L. Rev. 38, 33.

Elian, G., 1979. The Principles of Sovereignty Over Natural Resources. Martinus Nijhoff Publishers.

Erasmus, J., Potgieter, J., 2024. Legislative frameworks and sustainable mining practices in South Africa: integrating environmental and socio-economic objectives. In: Mine Closure2024: Proceedings of the 17th International Conference on Mine Closure. Australian Centre for Geomechanics, pp. 1271–1280.

Fanyane, K., 2023. The Implementation of the Environmental Impact Assessment during the Lifespan of mines: an Evaluation of the South African Legal Framework. Faculty of Law,Institute of Marine and Environmental Law.. http://hdl.handle.net/11427/40163

Gilolmo-Lobo, P., 2022. Doctoral dissertation.

Glazewski, J., Haward, M., 2005. Towards integrated coastal area management: a case study in co-operative governance in South Africa and Australia. Int. J. Mar. Coastal Law 20 (1), 65–84.

Greyling, C., 2021. The Effect of Section 2 (1) of the Interim Protection of Informal Land Rights Act 31 of 1996 on the Granting of a Mining Right in Terms of Section 23 and the Dispute Resolution Processes in Terms of Section 54 of the Mineral and Petroleum Resources Development Act 28 of 2002. Master's thesis. University of Pretoria, South Africa.

Gümplová, P., 2021. Sovereign territory and the domination over nature. Critical Theory and New Materialisms. Routledge, pp. 31–41.

Hannig, T.J., 1983. Public trust doctrine expansion and integration: a proposed balancing test. Santa Clara L. Rev. 23, 211.

Hilson, G., 2002. Harvesting mineral riches: 1000 years of gold mining in Ghana. Resour. Policy. 28 (1-2), 13–26.

Hilson, G., 2020. The Africa Mining Vision: a manifesto for more inclusive extractive industry-led development? Canad. J. Develop. Stud./Revue canadienne d'études du développement 41 (3), 417–431.

Joynt, C.E., 2021. Doctoral dissertation. North-West University, South Africa.

Kelly, D.B., 2006. The public use requirement in eminent domain law: a rationale based on secret purchases and private influence. Cornell L. Rev. 92, 1.

Khanyile, S., Marais, L., 2024. Mine closure policies and strategies in South Africa. Local Responses to Mine Closure in South Africa: Dependencies and Social Disruption.

Kirkwood, I., 2006. Our valley's too green: minister. Herald, Oct 28, 21.

Klass, A.B., 2020. Eminent domain law as climate policy. Wis. L. REv. 49.

Kleinsasser, Z.C., 2005. Public and private property rights: regulatory and physical takings and the public trust doctrine. BC Envtl. Aff. L. Rev. 32, 421.

Kratovil, R., Harrison Jr, F.J., 1954. Eminent domain–policy and concept. Calif. L. Rev. 42, 596.

Kruger, M., 2024. Compensation as radical transformation. PotchefstRoom Electron. Law J. 27. Published-on.

Kuipa, E., Lekunze, J.N., 2024. Management gaps in the implementation of legislation regulating derelict and ownerless mines in South Africa. J. South. Afr. Inst. Min. Metall. 124 (9), 547–554.

Lehavi, A., 2021. Temporary eminent domain. Buff. L. Rev. 69, 683.

Loperena, C., 2022. The Ends of Paradise: Race, Extraction, and the Struggle for Black Life in Honduras. Stanford University Press.

Mantilla, Y.G., 2024. The socio-economic rights of the Aymara and Quechua peoples of Bolivia, the lithium industry, and the geopolitics of natural resources. J. Energy Nat. Resour. Law 1–22.

Mao, W., Qiao, S., 2021. Legal doctrine and judicial review of eminent domain in China. Law Soc. Inquiry 46 (3), 826–859.

Marais, L., 2020. Housing policy in mining towns: issues of race and risk in South Africa. Housing Policy Innovation in the Global South. Routledge, pp. 169–179.

Marais, L., de Lange, A., 2021. Anticipating and planning for mine closure in South Africa. Futures. 125, 102669.

Massyn, J.H., 2023. The Maledu and Baleni cases Impact On Customary Communities Vulnerability to Expropriation. Faculty of Law, Department of Private Law. Available at: http://hdl.handle.net/11427/38054.

Masutha, M., 2022. Impact of traditional governance law's on communities rights to participate in mineral approval processes. Master's thesis. University of Pretoria, South Africa.

McCarthy, T.S., 2011. The impact of acid mine drainage in South Africa. S. Afr. J. Sci. 107 (5), 1–7.

Morolo, P.S., 2023. Doctoral dissertation. North-West University, South Africa.

Mostert, H., 2012. Mineral law: Principles & policies in Perspective. Juta and Company Ltd.

Mothudi, T., 2023. A Legal Analysis of the Relationship between, and Role of, Consultation under the MPRDA and Public Participation Under NEMA in Safeguarding the Environmental and Health Rights of Mining Communities. Faculty of Law, Department of Private Law. Available at:Available at: http://hdl.handle.net/11427/39717.

Msezane, N.N., 2023. The Outlook On the Extractives Upstream Investment in South Africa: the Environmental Governance Issue. Faculty of Law,Department of Private Law. Available at: http://hdl.handle.net/11427/39708.

Mugo, T.M., 2021. Safeguarding Rights of Mining Communities in South Africa: an Analysis of the Legal Mechanisms in Force With a Particular Focus On Community Development Agreements. Faculty of Law, Department of Private Law. Available at: http://hdl.handle.net/11427/33839.

Ndlazi, S., 2022. Alone in the dark": How the current mining and minerals legal regime continues to fail artisanal and small-scale miners in South Africa. Law Democr. Develop. 25 (1), 221–255.

Ntsanwisi, F. (2021). Consultation and consent under the MPRDA and the IPILRA: a legal analysis of the decision-making practices of customary communities in South Africa. Available at: https://open.uct.ac.za/server/api/core/bitstreams/c6990996-7601-4034-bd40-8c1834122ecf/content.

Nwaila, G.T., Ghorbani, Y., Zhang, S.E., Frimmel, H.E., Tolmay, L.C., Rose, D.H., Bourdeau, J.E., 2021. Valorisation of mine waste-Part I: Characteristics of, and sampling methodology for, consolidated mineralised tailings by using Witwatersrand gold mines (South Africa) as an example. J. Environ. Manage. 295, 113013.

Odeku, K.O., 2015. Sustainable prospecting for natural resources: impacts and implications. J. Hum. Ecol. 49 (1-2), 41–48.

Omidire, K., 2024. Challenges of human rights protection in the sustainable development of natural resources in South Africa. Domestic and Regional Environmental Laws and Policies in Africa. Routledge, pp. 180–197.

Patgiri, D., 2024. The law of eminent domain and forced displacement in India. Christ ULJ 13, 29.

Pennington, K. (2024). Eminent domain, property rights, and the state. Available at: https://s3.amazonaws.com/na-st01.ext.exlibrisgroup.com/01CLIC_STTHOMAS/storage/alma/7A/6A/C1/B7/D2/9E/2A/7A/CA/98/4C/5E/E7/7C/35/89/4.%20Pennington.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Date=20241214T220157Z&X-Amz-SignedHeaders=host&X-Amz-Expires=119&X-Amz-Credential=AKIAJN6NPMNGJALPPWAQ%2F20241214%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Signature=108f34dc15df09969614529133ecc92711dfbd5941a37dd202e264e92da5dc60.

Perez, C., Claveria, O., 2020. Natural resources and human development: evidence from mineral-dependent African countries using exploratory graphical analysis. Resour. Policy 65, 101535.

Perry (2016). The property owner sacrificed his property, the other citizens paid taxes to cover the cost of compensation.

Plagerson, S., Stuart, L., 2024. The South African mining sector: exploring the dynamics of the social, economic and environmental policy nexus. Emerging Trends in Social Policy from the South. Policy Press, pp. 114–136.

Quick, J., 1901. The Annotated Constitution of the Australian Commonwealth. Angus & Robertson.
Rodrik, D., 2008. Understanding South Africa's economic puzzles. Econ. Trans. 16 (4), 769–797.
Ryan, E., 2001. Public trust and distrust: the theoretical implications of the public trust doctrine for natural resource management. Envtl. L. 31, 477.
Sax, J.L., 1970. The public trust doctrine in natural resource law: effective judicial intervention. Mich. Law Rev. 68 (3), 471–566.
Schmidt, H. (2023a). The legal meaning of state custodianship in the context of the Mineral and Petroleum Resources Development Act 28 of 2002.
Schmidt, H., 2023b. The Legal Meaning of State Custodianship in the Context of the Mineral and Petroleum Resources Development Act 28 of 2002. Faculty of Law, Department of Private Law. Available at: http://hdl.handle.net/11427/38540.
Sharaky, A.M., 2014. Mineral resources and exploration in Africa. In: Proceedings of the Conference of 25th Revolution and the Future of the Relationships between Egypt and Nile Basin Countries, pp. 1–20.
Stephani, E., 2024. South Africa land reform: more is less. Brooklyn. J. Int. Law 49 (2), 420.
Stevens, J.S., 1980. The public trust: A sovereign's ancient prerogative becomes the people's environmental right. Uc Davis L. Rev. 14, 195.
Tlale, M.T., 2020. Conflicting levels of engagement under the interim Protection of Informal Land Rights Act and the Minerals and Petroleum Development Act: a closer look at the Xolobeni Community Dispute. Potchefstroom Electron. Law J./ Potchefstroomse Elektroniese Regsblad 23 (1).
Tom, Z.Z., 2015. Doctoral dissertation.
Tom, Z.Z., 2015. Analysis of the key factors affecting beneficiation in South Africa (M.Sc dissertation. University of Witwatersand.
Tomaselli, C., de Wet, J.P., 2024. Policy on trial: participatory vs neo-liberal development. Dev. South. Afr. 41 (2), 276–289.
Van den Berg, H.M., 2009. Ownership of minerals under the new legislative framework for mineral resources. Stellenbosch Law Rev. 20 (1), 139–158.
Van der Schyff, E., 2006. Doctoral dissertation. North-West University.
Van der Schyff, E. (2012). South African mineral law: a historical overview of the state's regulatory power regarding the exploitation of minerals.
Van der Walt, A.J., 2005. Constitutional Property Law. Juta Publisher.
Van der Walt, A.J., 2008. Constitutional property law. Ann. Survey South Afr. Law 2008 (1), 231–264.
Van der Walt, A.J., 2011. Constitutional property law. Ann. Survey South Afr. Law 2011 (1), 245–292.
Van der Walt, A., Walsh, R., 2017. Comparative constitutional property law. Comparative Property Law. Edward Elgar Publishing, pp. 193–215.