# Settling the question of ownership of degraded mining land: Enabling a fibrous future

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**SUMMARY**

The consequences of mining for the land on which it is conducted are often irreversible. While the legal framework in South Africa requires rehabilitation of mining land take place following the conclusion of operations, the country has a poor track record of effective mine closure. The failure to effectively rehabilitate degraded mining land has negative consequences for non-mining landowners as well as local communities. New solutions are thus required to try address and ultimately reverse the proliferation of degraded mining land. The Fibrous Future Initiative (FFI), the use of fibrous plants to remediate the land, is one such solution. It can also create new economic opportunities for surrounding communities. The legal framework needs to address a number of important issues in order to facilitate the FFI, including settling the question of ownership of degraded mining land. This article explores possible legal answers to the question of ownership of degraded mining land, including regulated exit as well as expropriation.

## 1 Introduction

The consequences of mining for the environment and land on which it is conducted are often irreversible. It cannot be disputed that the practice of mining may effectively render the land barren and unfit for other uses,[1] regardless of the best rehabilitation and mine closure practices. Where effective rehabilitation and mine closure does not take place, the negative socio-economic consequences for both those who own the land

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1 Worral *et al* "Towards a Sustainability Criteria and Indicators Framework for Legacy Mine Land" 2009 *J Clean Prod* 1427. See also Field *State Governance of Mining, Development and Sustainability* (2019) 306-308.

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as well as the nearby community can be significant.[2] In such circumstances, relief for those impacted, as well as alternative land uses which may empower the wider community, are necessary.

## 1 1 The problem of mine-waste land in South Africa

Prior to the enactment of South Africa's Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA), under the Minerals Act 50 of 1991, private landowners were entitled to not exploit mineral resources that existed under their land, if they had not previously been severed from the land.[3] A private landowner was free to not engage in the business of mining on her land, or sell the mineral rights to a party that may wish to do so.[4] If the State wished to have minerals on private land exploited, it would have to expropriate either the land or the rights to minerals, against payment of just and equitable compensation.[5] Landowners who thus wished to protect their land from the degradation that would result from mining were free to do so, or had to be appropriately compensated by the State.

Inevitably, in a country in which landownership and mineral resource holding patterns were racially skewed due to a history of colonialism and apartheid,[6] this position could not persist long. The MPRDA made the State the custodian of South Africa's mineral resources, which the State must now regulate for the benefit of all of South Africa's people.[7] The State, rather than the landowner, grants rights to engage in prospecting and mining, including on private land.[8] As a consequence, landowners now have little to no agency on whether prospecting or mining takes place on their land.[9] At most, they are compensated for the loss or damage that occurs as a result of mining operations.[10]

Following the conclusion of mining operations, if the process envisaged by the legal framework created by the MPRDA is followed, the

2 Stoddard "DMRE's Failure to Rehabilitate Abandoned Mines Poses Health Risks to Communities" https://www.dailymaverick.co.za/article/2022-03-30-dmres-failure-to-rehabilitate-abandoned-mines-poses-health-risks-to-communities/ 2022 (last accessed 2024-09-06); Nucbe "The Forever Mines: Perpetual Right Risks from Unrehabilitated Coal Mines in South Africa" https://www.hrw.org/report/2022/07/05/forever-mines/perpetual-rights-risks-unrehabilitated-coal-mines-south-africa 2022 (last accessed 2024-09-06).

3 *Agri South Africa v Minister for Minerals and Energy* 2013 4 SA 1 (CC) para 50; Mostert *Mineral Law: Principles and Policies in Perspective* (2012) 70; Badenhorst "Conflict Resolution Between Owners of Land and Holders of Rights to Minerals: A Lopsided Triangle" 2011 *TSAR* 328.

4 Badenhorst 2011 *TSAR* 328; Mostert *Mineral Law* 70.

5 See S 24 of the Minerals Act 50 of 1991.

6 *Agri South Africa* para 65.

7 S 3(1).

8 S 3(2)(a).

9 See Van der Schyff *Property in Minerals and Petroleum* (2016) 581ff.

10 See the conflict resolution provision of the MPRDA, S 54. See also Van der Schyff (2016) 601; Badenhorst 2011 *TSAR* 338

land will be rehabilitated, and a closure certificate granted to the right holder.[11] However, South Africa has a poor track record of mine rehabilitation and closure, and as a consequence, landowners do not know whether or not they will receive their land back in a rehabilitated state.[12] Effectively, private landowners who are not engaged in the business of mining may remain burdened with the long-term consequences of the practice, from which they derived no benefit. Evidently, there is an imbalance of interests to the detriment of private landowners. Furthermore, there are the long-term socio-economic and environmental effects of mine closure on local communities, which may have depended economically on their local mine,[13] and will suffer the adverse environmental and health effects of failure to effectively rehabilitate and close the mine.[14]

The legislative provisions concerning mine rehabilitation may have been drafted with the best of intentions, providing for among other things, financial provision from would-be miners to cover the costs of rehabilitation.[15] The Financial Provisioning Regulations[16] are particularly stringent, providing for minimum content for (1) annual rehabilitation plans, (2) final rehabilitation, decommissioning and mine closure plans, and (3) environmental risk assessment reports. The mine closure plan requires the identification of post-mining land use while the environmental risk assessment report requires the identification of latent

11 See S 43 of the MPRDA.

12 Limpitlaw *et al* "Post-Mining Rehabilitation, Land Use and Pollution at Collieries in South Africa" Unpublished contribution delivered at *Sustainable Development in the Life of Coal Mining* 13 July 2005 Boksburg. Available at http://limpitlawconsulting.com/05Limpitlaw%20et%20al%202005%20Post%20Mining%20Rehabilitation%20Land%20Use%20and%20Pollution%20at%20Collieries.pdf (last accessed 2024-09-06); McKay and Milaras "Public Lies, Private Looting and the Forced Closure of Grootvlei Gold Mine, South Africa" 2017 *The Journal of Transdisciplinary Research in South Africa* 4; Krause and Snyman "Rehabilitation and Mine Closure Liability: An Assessment of the Accountability of the System to Communities" Unpublished contribution delivered at the Sandton Convention Centre *9th International Conference on Mine Closure* 1-3 October 2014 Johannesburg. Available at https://www.wits.ac.za/media/wits-university/faculties-and-schools/commerce-law-and-management/research-entities/cals/documents/Rehabilitation%20and%20mine%20closure%20liability.pdf (last accessed 2024-09-06); Van Druten and Becker "Towards an Inclusive Model to Address Unsuccessful Mine Closures in South Africa" 2017 *J South Afr Inst Min Metall* 485; Centre for Environmental Rights 2016 https://cer.org.za/news/mine-closure-and-rehabilitation-the-hangover-that-follows-the-mining-party. See further Field (2019) 319-320.

13 Verster "Finding Ways to Keep Communities Alive After Mine Closures" 2018 https://theconversation.com/finding-ways-to-keep-communities-alive-after-mine-closures-98505 (last accessed 2024-09-06).

14 Special Reports "The Human Cost of South Africa's Mining and Corporate Riches" 2023 https://mg.co.za/partner-content/2023-03-27-the-human-cost-of-south-africas-mining-and-corporate-riches/ (last accessed 2024-09-06).

15 S 24PA of National Environmental Management Act 107 of 1998 (NEMA); Van der Schyff (2016) 570-572.

16 Financial Provisioning Regulations, GN R1147 in GG 39425 of 20 November 2015.

environmental risks following mine closure. The mine closure plan must include a closure cost estimate, to ensure "that identified rehabilitation, decommissioning, closure and post-closure costs, where on-going or once-off, are realistically estimated and incorporated into the estimate".[17] The closure estimate must be updated annually.

The Financial Provisioning Regulations have been contentious,[18] with the transitional arrangements being subject to numerous redrafts and extensions. As of writing, the most recent extension provides that a holder of a right or permit in terms of the MPRDA, who applied for such right or permit prior to 20 November 2015, is regarded as complying with the provisions until an unspecified date to be published in the government gazette.[19]

It is evident that the existing legal framework can only achieve so much in the absence of effective enforcement, incentives and legal certainty.[20] Closure certificates that are granted are usually for prospecting sites or small-scale mines with relatively low environmental impacts.[21] Given the possibility of perpetual liability introduced in legislative amendments, larger mining companies would rather sell on their rights to smaller concerns than go through to process of closing a mine.[22] Ultimately, new solutions are required to address degraded mining land, which will require changes to the legal framework, including around the question of ownership of degraded mining land. It is important to determine where, exactly, such ownership should vest, particularly following the conclusion of mining operations.

## 1 2 Harnessing fibrous plants

The Towards Resilient Futures Community of Practice seeks to provide solutions to the problems surrounding mine closure in South Africa.[23] Resilient Futures is an interdisciplinary initiative, including collaborators from the fields of engineering, economics as well as law.[24] It has sought

17 As above.
18 Chamber of Mines *Financial Provisions in NEMA – The View of the Chamber of Mines*. https://www.mineralscouncil.org.za/component/jdownloads/?task=download.send&id=275&catid=26&m=0&Itemid=250 (last accessed 2025-08-12).
19 Reg 17B(b).
20 Mpanza, Adam and Moolla "A Critical Review of the Impact of South Africa's Mine Closure Policy and the Winding-Up Process of Mining Companies" 2021 *The Journal for Transdisciplinary Research in Southern Africa* 7.
21 Watson and Olalde "The State of Mine Closure in South Africa – What the Numbers Say" *J. S. Afr. Inst. Min. Metall.* 639.
22 Watson and Olalde 2019 *J. S. Afr. Inst. Min. Metall.* 639-640.
23 Towards Resilient Futures "About 'Towards Resilient Futures'" https://commerce.uct.ac.za/resilient-futures/about-towards-resilient-futures (last accessed 2024-09-06); Lotter "Part 3: Mine(d) Over Matter: Mining Fibrous Plants" 2020 https://law.uct.ac.za/mineral-law/articles/2020-02-05-part-3-mined-over-matter-mining-fibrous-plants (last accessed 2024-09-06).
24 As above.

to determine the viability, from engineering, economic and legal standpoints, of using fibrous plants to remediate mining land while creating new economic opportunities.[25] The project on bioremediation of degraded mining land is referred to as the Fibrous Future Initiative (FFI).[26]

The FFI presents a possible solution to the problem in ineffective mine rehabilitation, as it could unlock the dormant positive value of unrehabilitated mining land.[27] Fibrous plants are capable of growing on degraded soil, while being able to "absorb and concentrate environmentally noxious metals in their roots, stems or leaves, thus removing the metals from the soil and permitting the re-entry of such croplands into the agricultural cycle".[28] Such plants may also be "mined" themselves, meaning the metals they have absorbed can be harvested from various parts of the plant.[29] Furthermore, commercial fibre-producing plants can be used to produce a variety of products such as biofuels, textiles, paper and furniture.[30] Effectively, these plants can both remediate degraded mining land, in addition to providing new economic opportunities to surrounding communities.[31] Such an initiative thus offers a possible solution to the negative impacts of post-mining wastelands for all affected parties, particularly those parties who remain bound to the land in one way or another. Moreover, new economic sectors can take root, providing economic opportunities to communities surrounding degraded mining land.[32]

25 As above.

26 Lotter "Part 3: Mine(d) Over Matter: Mining Fibrous Plants" 2020 https://law.uct.ac.za/mineral-law/articles/2020-02-05-part-3-mined-over-matter-mining-fibrous-plants (last accessed 2024-09-06); Lotter "Part 4: Mine(d) Over Matter: South African Law and Policy in a Fibrous-Plant Future" 2020 http://www.mlia.uct.ac.za/news/part-4-mined-over-matter-south-african-law-and-policy-fibrous-plant-future (last accessed 2024-09-06).

27 Towards Resilient Futures "About 'Towards Resilient Futures'" https://commerce.uct.ac.za/resilient-futures/about-towards-resilient-futures (last accessed 2024-09-06); Mostert *et al From Tailings to Tillings: Designing the Legal Framework for Mine Waste Land Rehabilitation Through Bio-Remediation* (2019) 1, 7; Broadhurst, Chimbganda and Hangone *Identification and Review of Downstream Options for the Recovery of Value from Fibre Producing Plants: Hemp, Kenaf and Bamboo* (2019) 48 .

28 Mostert *et al* (2019) 12; Broadhurst, Chimbganda and Hangone (2019) 2-47. Also see Harrison *et al Towards Resilient Futures: Can Fibre Rich Plants Serve the Joint Role of Remediation of degraded Mine Land and Fuelling of Multi-Product Value Chain* (2019) 1.

29 Lotter "Part 3: Mine(d) Over Matter: Mining Fibrous Plants" 2020 https://law.uct.ac.za/mineral-law/articles/2020-02-05-part-3-mined-over-matter-mining-fibrous-plants (last accessed 2024-09-06); Harrison *et al* (2019) 1.

30 Mostert *et al* (2019) 12; Broadhurst, Chimbganda and Hangone (2019) 2-47.

31 Mostert *et al* (2019) 13.

32 Mostert *et al* (2019) 7-8; Allen *et al Building Economic Complexity in the South African Fibrous Plant Economy* (2019).

There are a number of important issues the law needs to grapple with to establish an appropriate legal framework which would facilitate success in the FFI.[33] Among these is the question of the ownership of degraded mining land, particularly where the landowner and the mining right holder are not the same person.[34] This article is primarily concerned with the manner in which the FFI can provide some form of relief for landowners, with a particular focus on a regulated exit which would see another party take ownership and responsibility for the land in question. It begins with an analysis of the law of abandonment as regards land, and the importance of the law's general suspicion of unregulated abandonment.[35] Theory related to the social-obligation norm of property law is explored as a basis for the manner in which the law controls our disposal of unwanted property.[36] It then proceeds to evaluate the burden to which landowners are subjected in the mining context, particularly in view of South Africa's poor track record of mine rehabilitation and closure. It seeks to provide a model of what a regulated exit from landownership would look like if coupled with the FFI. Finally the potential consequences of the Expropriation Act[37] for degraded mining land are considered, specifically those sections which would empower the State to expropriate land for nil compensation.[38]

## 2 Legal Background and Theory

Before proceeding to engage with the manner in which the law may facilitate the FFI and settle questions of ownership of degraded mining land, it is necessary to provide some legal background and theory. First, this section will provide an overview of the legal position in South Africa concerning the abandonment of landownership, being an important question for owners of land which may never have been effectively rehabilitated post-mining. Secondly, it will engage with the duty to maintain as a source of negative value for landowners,[39] and the social-obligation norm of property law.[40] Finally, the question of the allocation of burdens in the mining context is evaluated.

33 Mostert *et al* (2019) 18ff.
34 Mostert *et al* (2019) 40ff.
35 Peñalver "The Illusory Right to Abandon" 2010 *Mich L Rev* 214-219.
36 See Cramer *The Abandonment of Landownership: A Proposed Model for Regulated Exit* (PhD thesis 2020 UCT) ch 4.
37 Expropriation Act 13 of 2024.
38 S 12(3).
39 Shoked "The Duty to Maintain" 2014 *Duke Law J* 441.
40 Alexander "The Social-Obligation Norm in American Property Law" 2009 *Cornell Law Rev* 745.

## 2 1 Abandonment of landownership in South Africa

Prior in-depth analysis[41] has confirmed that it is not possible to abandon landownership in South African law.[42] There is simply no mechanism which permits a landowner to strike their name from the title deed unilaterally.[43] South Africa observes a negative system of registration of land.[44] The position reflected in the Deeds Registry is not guaranteed to be correct, though it is characterised by a high degree of accuracy.[45] However, in view of the principle of publicity,[46] it is difficult to envisage how land may be abandoned without registration actions to give effect to it.[47] Thus, no matter how neglected or "abandoned" a plot of land may look, it will still have a registered owner. Landowners are not free to divest themselves unilaterally of ownership in their land (even if a third party has engaged in mining on the land, and then failed to rehabilitate it).[48] Absent finding a party willing to take transfer thereof, they remain responsible for it.

The impossibility of abandoning land in South African law serves an important purpose. An unrestricted right to abandon, which may result in the proliferation of neglected land for which the State will need to take responsibility, is not viable in South Africa's socio-economic context. The social cost of such abandonment, particularly in a country characterised by wealth inequality,[49] and in which the State is already struggling to meet its socio-economic obligations to its people in light of budget constraints,[50] is too high. Nevertheless, where the landowner is not to blame for the circumstances causing her land to accruing a negative value, it is necessary to evaluate the allocation of the burden on the landowner. Such circumstances may justify providing a landowner with some sort of (regulated) exit, thereby passing the responsibility for the land to the State or another party willing to take responsibility therefor.

41 Cramer "The Abandonment of Landownership in South African and Swiss Law" 2017 *SALJ* 878-887; Cramer (2020) ch 3.
42 As above.
43 As above.
44 Van der Merwe and Pope "Part III – Property" in Du Bois (founding ed) *Wille's Principles of South African Law* (2007) 537; Muller *et al Silberberg and Schoeman's the Law of Property* (2020) 260-261.
45 Van der Merwe and Pope (2007) 537; Muller *et al* (2020) 342ff.
46 Mostert "No Right to Neglect? Exploratory Observations on How Policy Choices Challenge the Basic Principles of Property" In Scott and Van Wyk (eds) *Property Law under Scrutiny* (2015) 26-27.
47 As above.
48 See however the contrasting opinion of Sonnekus: Sonnekus "Abandonnering van Eiendomsreg op Grond end Aanspreeklikheid vir Grond Belasting" 2004 *TSAR* 747.
49 Sguazzin "South Africa Wealth Gap Unchanged Since Apartheid, Says Word Inequality Lab" 2021 https://time.com/6087699/south-africa-wealth-gap-unchanged-since-apartheid/ (last accessed 2024-09-10).
50 Zeeman "43 Municipalities in 'Intensive Care' as Budget Cuts Wreck Service Delivery" 2022 https://www.timeslive.co.za/politics/2022-09-28-43-municipalities-in-intensive-care-as-budget-cuts-wreck-service-delivery/ (accessed 2024-09-10).

A clear example would be where mining was conducted on the owner's land by a third party granted a right by the State absent her consent, and the right holder failed to comply with its obligations to rehabilitate the land. The landowner in such circumstances is unlikely to ever receive their land back in a rehabilitated state, may have no use for it, and be unable to find a willing buyer. This example is expanded upon below, although concepts such as the duty to maintain and the social-obligation norm of property will be surveyed first.

## 2 2 The duty to maintain and the social-obligation norm of property law

A key factor in contributing to the burden on a landowner, and which may contribute to land accruing a negative value, is the duty to maintain.[51] As Shoked explains, for ownership of property to constitute a burden, it "must do worse than offer no conceivable economic benefit".[52] Such a burden would stem from positive obligations that attach to the ownership of land.[53] These duties are not limited to property taxes. Rather, a burden which may give rise to land accruing a negative value for its owner likely stems from a duty to maintain that land.[54] In Shoked's view, the duty to maintain is an integral part of ownership of land, given the potential consequences of neglect for parties other than the owner.[55] While Shoked is making his observations in the context of US law, his observations are equally applicable to South African law. A quick survey of South African law provides examples of the duty to maintain, from problem building by-laws,[56] property that is protected in terms of the National Heritage Resources Act,[57] or the requirement to maintain firebreaks in areas at high risk of veldfires.[58] Even at common law, a property owner is obliged to maintain her property to ensure it does not amount to a nuisance or danger to her neighbours.[59] The duty to maintain is a key consideration in the context of degraded mining land, as such land may not just pose a nuisance to immediate neighbours, but pose a threat to the environment and wider community.

The duty to maintain can potentially be oppressive for the individual owner, depending on context. In considering the allocation of burdens with respect to negative-value land, the social-obligation norm of property law is useful. As Peñalver has noted, the doctrine of abandonment, rather than affirming the autonomy of owners, rather

51 Shoked 2014 *Duke Law J* 441.
52 As above.
53 As above.
54 As above.
55 Shoked 2014 *Duke Law J* 463ff.
56 See Cramer (2020) 175ff.
57 National Heritage Resources Act 25 of 1999. See Cramer (2020) 164ff.
58 See the provisions of the National Veld and Forest Fire Act 101 of 1998.
59 Muller *et al* (2020) 125, 149. See also Van der Walt *The Law of Neighbours* (2010) chs 6-7.

affirms their obligations and responsibilities as owners.[60] It is widely acknowledged by property-law scholars that the entitlements of ownership (particularly landownership) are coupled with obligations, obligations which cannot be viewed as separate from the social context in which ownership exists.[61] The seminal work of Alexander is instructive in this regard.[62] Property rights, particularly rights in land, in his view are conceived of as "inherently relational".[63] At the core of Alexander's conception of the social-obligation norm of property is human flourishing.[64] Such an approach to the law of property requires "individuals to live lives worthy of human dignity".[65] Human flourishing provides justification for the existence of property rights, and equally, justification for interference with and limitation of property rights.[66] Consequently, owners owe obligations to the society in which they live.[67] Property owners depend on society for the acknowledgement and protection of their property rights, which enables them to flourish.[68] Thus owners should in turn support the same social framework which enables them as well as others to flourish.[69] Such an approach to the social-obligation norm does not mean disregarding individual rights and interests, property owners must still be protected from unreciprocated burdens.[70]

In the framework of the social-obligation norm, the obligations of property owners extend beyond not causing harm to others.[71] Owners may also be expected to contribute to the well-being of their community, since their community has enabled their own flourishing.[72] Such a contribution may take the form of giving from their own resources, or the limitation or complete loss of certain entitlements of ownership.[73] For example, one's immediate reaction may be that an owner should be

60 Peñalver 2010 *Mich L Rev* 193.
61 Alexander 2009 *Cornell Law Rev* 747-748; Alexander *Property and Human Flourishing* (2018) ch 2; Alexander and Peñalver *An Introduction to Property Theory* (2012) 94; Singer *Entitlement: The Paradoxes of Property* (2000) 131ff; Dagan "The Social Responsibility of Ownership" 2007 *Cornell Law Rev* 1255.
62 Alexander (2018) 81.
63 Alexander 2009 *Cornell Law Rev* 747-748; Alexander and Peñalver (2012) 94.
64 Alexander 2009 *Cornell Law Rev* 760ff; Alexander (2018); Alexander and Peñalver (2012) ch 5.
65 Alexander 2009 *Cornell Law Rev* 748. See also Alexander (2020) 5; Alexander and Peñalver (2012) 89.
66 Alexander 2009 *Cornell Law Rev* 749-750; Alexander (2012) 215
67 Alexander 2009 *Cornell Law Rev* 747-748; Alexander (2012) ch 2; Alexander and Peñalver (2012) 94; Singer (2000) 131ff; Freyfogle (2003) 27; Singer 2009 *Cornell Law Rev* 1048-1049.
68 Alexander 2009 *Cornell Law Rev* 760; Alexander (2018) xv; Alexander and Peñalver (2012) 95
69 Alexander 2009 *Cornell Law Rev* 760; Alexander (2018) xv; Alexander and Peñalver (2012) 95
70 Alexander 2009 *Cornell Law Rev* 771-772
71 Alexander 2009 *Cornell Law Rev* 754; Alexander and Peñalver (2012) 94-95.
72 Alexander 2009 *Cornell Law Rev* 754; Alexander and Peñalver (2012) 94-95.
73 Alexander 2009 *Cornell Law Rev* 754; Alexander and Peñalver (2012) 94-95.

entitled to terminate her relationship with property as she sees fit. However, such an approach is not compatible with protecting the right of others to flourish in many societies. Depending on the context, the unrestricted disposal of unwanted (particularly contaminated) land poses a significant threat to the flourishing of others, both to others the immediate vicinity of such land and those who will be impacted by the inevitable drain on the public purse.[74] As such, an individual owner may be expected to retain ownership, and use her resources maintaining her land, until such point as a third party is willing to take transfer and responsibility for such property. Ensuring a party remains responsible for degraded mining land, to mitigate its impacts, is essential to ensuring the flourishing of surrounding communities who cannot simply relocate to greener pastures. It is, however, a question of whether it is fair to expect this of the non-mining landowner, particularly in the absence of effective solutions to rehabilitating the land. Degraded mining land clearly poses particular challenges to the social-obligation norm, particularly in respect of flourishing. Both the flourishing of the non-mining landowner and mine-affected communities may be severely jeopardised when mining companies fail to comply with their obligations to rehabilitate land.

Alexander takes a "sliding scale" approach to the social-obligation norm.[75] Following this approach one can evaluate "the magnitude of the social obligation and the social function of property", deciding on the appropriateness of particular burdens on different types of property.[76] Such an approach would assist us in determining why a particular entitlement of ownership may be limited or withdrawn in one socio-economic context, but unrestricted in another socio-economic context.[77] It may also assist in determining whether a particular burden to which the landowner is subjected is fair.

This conception of the social-obligation norm is compatible with the values enshrined in South Africa's Constitution, for example, human dignity, equality, and the promotion of human rights and freedoms.[78] Section 25, the property clause, aligns with the social-obligation norm, particularly in respect of land and natural resources reform.[79] Landowners enjoy certain protections under the constitutional dispensation, such as the constitutional prohibition against arbitrary deprivation of property,[80] but at the same time, can be expected to tolerate the limitation (or outright sacrifice) of certain entitlements.[81]

74 See Cramer (2020) ch 6 s 2.1.
75 Alexander *The Global Debate over Constitutional Property* (2006) 214-215.
76 Alexander (2006) 214-215.
77 Cramer 2017 *SALJ* 899.
78 See S 1 of the Constitution of the Republic of South Africa, 1996. See also Alexander 2009 *Cornell Law Rev* 782ff.
79 Alexander 2009 *Cornell Law Rev* 782ff.
80 S 25(1).
81 In this respect, see the remarks of Sachs J in *Port Elizabeth Municipality v Various Occupiers* 2005 1 SA 217 (CC) paras 14-23.

Furthermore, the sliding-scale approach to social-obligation would similarly appear to be an easy fit with South Africa's constitutional property law.[82] In particular, the factors to be considered in a proportionality analysis in respect of the cases involving the deprivation of property, reflect a sliding-scale approach.[83] Per the Constitutional Court in *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Service,*[84] when concerned with the non-arbitrariness requirement, it may not be sufficient to establish a simple rational connection between means and ends.[85] The severity of the deprivation may necessitate considering the proportionality of the means and ends as well, i.e. the impact of the deprivation on the individual property holder.[86] Should a particular deprivation be disproportionate to the infringement of a property right, such deprivation is most likely arbitrary.[87] In South Africa's historical context, it is justifiable and proportionate that private landowners be subject to certain deprivations in respect of their land to open up the mining industry to the historically disadvantaged. However, the legislative framework clearly envisages landowners having their land returned to them in a rehabilitated state (even though such land may never be truly restored). The absence of effective enforcement of rehabilitation provisions, potentially leaving an owner saddled with what is a wasteland, may shift such a deprivation from being proportionate to disproportionate, and thus arbitrary.

South African constitutional property law is thus flexible, embodying a sliding-scale approach to the social-obligation norm.[88] This position permits us to consider whether the burden to which a particular landowner is subject is equitable or not, and whether the burden should be allocated to another party, such as the State. This paper now turns to evaluate the nature of these burdens in the mining context in South Africa, and fitting the FFI with the social-obligation norm.

82 Cramer (2020) 98-99.

83 As above. The factors considered in a proportionality enquiry include: (1) "the relationship between means employed, namely the deprivation in question, and ends sought to be achieved", (2) "the relationship between the purpose of the deprivation and the person whose property is affected", and (3) "the relationship between the purpose of the deprivation and the nature of the property" (*First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Service* 2002 4 SA 768 (CC) para 100).

84 2002 (4) SA 768 (CC).

85 Para 100.

86 Van der Walt *Constitutional Property Law* (2011) 237-238.

87 See para 111 of the *FNB* case, in which the court found it would be "grossly disproportionate" to permit the sale in execution of one party's property to settle the customs debt of another party.

88 See Mostert and Young "Between Custom and Colony: Social-Norm Based Property Law in South Africa's Post-Constitutional 'No-Man's Land'" in Babie and Viven-Wilksch (eds) *Léon Duguit and the Social Obligation Norm of Property* (2019) 371.

## 2 3 The mining context and the allocation of burdens

Restricting the disposal of land to ensure someone remains responsible for it clearly serves an important purpose. It reflects the manner in which the social-obligation norm operates in South African property law, and in particular, finds a comfortable fit with the values of the Constitution.[89] However, it does inevitably result in situations which are not necessarily equitable and a reconsideration of the allocation of burdens between the relevant parties is required. The mining context, in which the State may grant rights to prospect or mine on private land, is one such example. Landowners over whose land a right to prospect or mine has been granted are in an unenviable position. Under the current legal framework, private landowners do not have the right to withhold consent to the granting of a right to mine in their land, only to be consulted during the application phase for such a right with a view to determining whether accommodation between the parties is possible.[90] Once a right has been granted, landowners may be compensated for any loss or damage that may occur as a result of prospecting or mining operations,[91] but otherwise only stand to benefit in their capacity as members of the

89 Alexander 2009 *Cornell Law Rev* 782ff

90 SS 16(4)(b), 22(4)(b) and 27(5)(a) of the MPRDA. See also *Bengwenyama Minerals (Pty) Ltd v Genorah Resources (Pty) Ltd* 2011 4 SA 113 (CC) para 65. The position of private landowners differs from that of holders of informal land rights in terms of the Interim Protection of Informal Land Rights Act 31 of 1996 (IPILRA). In terms of IPILRA, nobody may be deprived of an informal land right without their consent, although such a right may be expropriated against payment of just and equitable compensation (s 2(1)). If land is held on a communal basis, then a person may only be deprived of their right in land "in accordance with the custom and usage of that community" (s 2(2)). Such a deprivation requires payment of appropriate compensation (s 2(3)). Custom and usage of a community is "deemed to include the principle that a decision to dispose of any such right may only be taken by a majority of the holders of such rights present or represented at a meeting convened for the purpose of considering such disposal and of which they have been given sufficient notice, and in which they have had a reasonable opportunity to participate" (s 2(4)). Our courts have confirmed that the granting of a right in terms of the MPRDA amounts to a deprivation of informal land rights in the land in question and that the MPRDA does not override the provisions of IPILRA. Rather the two Acts must be read together as far as possible. See *Maledu v Itereleng Bakgatla Mineral Resources (Pty) Ltd* 2019 (2) SA 1 (CC) paras 98-106. The issue of Free, Prior and Informed Consent in the context of informal land rights is outside the ambit of this article, but see further: Mathiba "The Incorporation of the FPIC Principle in South African Policy on Mining-Induced Displacements" 2024 *International Journal on Minority and Group Rights* 327; Mathiba and Mathiba "Mine Community Displacement and Resettlement in South Africa" in Graham, Davies and Godden (eds) *The Routledge Handbook of Property, Law and Society* (2022); Mathiba *Towards a Meaningful Engagement Approach to Mining-Induced Displacements in South Africa: A Legal Comparative Perspective* (PhD thesis 2023 UCT); Tlale "Conflicting Levels of Engagement under the Interim Protection of Informal Land Rights Act and the Mineral and Petroleum Development Act: A Closer Look at the Xolobeni Community Dispute" 2020 *PER*.

91 S 54 of the MPRDA.

public.[92] While the frustration of certain objectives of the MPRDA may trigger the discretion of the Minister to expropriate the land in question (for example, to "promote employment and advance the social and economic welfare of all South Africans"),[93] none of these objectives relate to the continued utility and value of the land to its owner. There is thus no obligation on the State nor the right holder to assume ownership of the land should the landowner no longer be able to put it to any use.[94]

South Africa has a poor track record of mine rehabilitation and closure.[95] Historically, mine closure in South Africa can be described as "environmentally inept".[96] Despite the enactment of strong environmental legislation under the new constitutional dispensation,[97] mine closure and rehabilitation continues to be characterised by poor compliance and enforcement. South Africa is home to an estimated 5700-6000 derelict mines.[98] Rehabilitation of these derelict mines would take 800 years, and the estimated cost of rehabilitation stood at R100 billion in 2017.[99] Despite the well-meaning provisions in the MPRDA and NEMA,[100] a disconnect exists "between policy and practice concerning mine closure".[101]

The One Environmental System (OES) was implemented with the primary goal of streamlining the process of obtaining environmental authorisations for mining, replacing the previous fragmented and ineffective model.[102] The implementation of the OES saw the repeal of all environmental provisions from the MPRDA and the incorporation of

92 Van der Schyff (2016) 601.
93 SS 54(5) and 55(1) the MPRDA.
94 This is in contrast to S 24 of the Minerals Act 50 of 1991, which provided for the State to acquire land in the event a mining operation "prevents or hinders or is likely to prevent or hinder the proper use of such land or such portion for farming purposes".
95 Limpitlaw *et al* (2005); McKay and Milaras 2017 *The Journal of Transdisciplinary Research in South Africa* 4; Krause and Snyman (2014); Van Druten and Becker 2017 *J South Afr Inst Min Metall* 485; Field (2019) 319-320.
96 Milaras, Ahmed and McKay "Mine Closure in South Africa: A Survey of Current Professional Thinnking and Practice" Unpublished contribution delivered at the Sandton Convention Centre *9th International Conference on Mine Closure* (1-3 October 2014 Johannesburg) 2. Available at https://www.researchgate.net/publication/278035528_Mine_closure_in_South_Africa_A_survey_of_current_professional_thinking_and_practice#:~:text=Mine%20closure%20is%20a%20serious,to%20chronic%20residual%20environmental%20impacts (last accessed 2024-09-2024).
97 See the National Environmental Management Waste Act 107 of 1998 and its filial legislation.
98 Van Druten and Becker 2017 *J South Afr Inst Min Metall* 485; Field *State Governance of Mining* 351-352.
99 Van Druten and Becker 2017 *J South Afr Inst Min Metall* 485.
100 As above.
101 Milaras, Ahmed and McKay (2014) 1.
102 Humby "'One Environmental System': Aligning the Laws of Environmental Management of Mining in South Africa" 2015 *Journal of Energy & Natural Resources Law* 110, 122.

these provisions into NEMA.[103] The Minister responsible for mineral resources was made the competent authority for granting environmental authorisations for mining activities.[104] The Minister responsible for environmental matters will only serve as an appeal authority regarding the granting of authorisations for mining activities.[105] As Mpinga points out, critics had anticipated "a lack of enforcement of the One Environmental System even before it came into effect".[106] In allocating the authority to enforce environmental laws to the same Minister responsible for promoting mineral extraction, a conflict of interest is almost unavoidable.[107] In such circumstances, the lack of proper enforcement of legislative mine closure provisions is not surprising. It also explains why larger mining companies are usually permitted to sell their rights onto smaller concerns rather than complying with their closure obligations.

It is not difficult to foresee situations arising in which private landowners find themselves burdened with toxic wasteland once mining operations have ceased. The right holder may be completely out of the picture, being a juristic person which may have since ceased to exist.[108] As such, the remnants of the mining operation, and the related contamination of the land, can be considered effectively "orphaned".[109] It is true financial provision for mine rehabilitation and closure is a prerequisite for conducting mining operations,[110] and that such provision may be increased on an annual basis to the satisfaction of the Minister.[111] Furthermore, a portion of such financial provision may be withheld by the Minister to manage "latent, residual or any other environmental impacts".[112] And the Financial Provisioning Regulations are particularly stringent. However, it is difficult, if not impossible, to get an accurate estimate of the true cost of the rehabilitation which is required to take place at the end of a mine's lifecycle.[113] Environmental issues such as acid mine drainage are particularly "difficult to quantify

103 S 50A(2)(a).
104 S 24C(2A). See Humby 2015 *Journal of Energy & Natural Resources Law* 125.
105 S 43(1).
106 Mpinga *Advancing the Effective Implementation of the One Environmental System for Mining Through Cooperative Environmental Governance* (LLM dissertation 2020 UCT) 29.
107 Mpinga *Advancing the Effective Implementation of the One Environmental System for Mining Through Cooperative Environmental Governance* 29; Yeld "Controversial Australian Company Applies for Extension of Mining Rights" https://groundup.org.za/article/controversial-australian-company-applies-extension-mining-rights/ (last accessed 2025-08-12); S Kings "New Bill Gives Mines Carte Blanche" https://mg.co.za/article/2014-03-27-new-bill-gives-mines-carte-blanche/ (lasted accessed 2025-08-12).
108 Krause and Snyman (2014) 2; Field (2019) 298-299.
109 Krause and Snyman (2014) 2; Field (2019) 298-299.
110 See S 24P(1) of NEMA. See also 24PA which provides financial provisioning requirements specific to mining.
111 S 24P(3)(a).
112 S 24P(5).
113 Field (2019) 328-335; Watson and Olalde 2019 *J. S. Afr. Inst. Min. Metall.* 639.

and predict … and costly to manage".[114] The residual environmental impacts from mining have created a situation in which obtaining a closure certificate may be a "practical impossibility", as the State would be unlikely to wish to take on responsibility for such impacts.[115]

In theory a landowner should receive her land back in a rehabilitated state; in practice, this is unlikely. The land may never be returned to an economically viable state. And even if the required rehabilitation and mine closure were to take place, the land may effectively be sterilised for the landowner's intended use.[116] Finding effective economic uses for such land, which may otherwise lie unused while being a source of harm to the community, is thus essential.

Reflecting on the mining context, the burden to which the non-mining landowner is subjected can evidently be oppressive. It hence may require reallocation. A balance of relevant factors would favour the landowner.[117] Firstly, the extent of the burden to which they are subject is considerable given that the landowner has no control over the granting of rights to minerals in her land. Secondly, existing remedies for conflict resolution between landowner and right holder, whether section 54 of the MPRDA or common law principles,[118] are ineffective in view of the poor track record of mine rehabilitation and closure in South Africa. Nor can the landowner depend on the financial provision provided during the course of mining operations to be adequate to cover the true cost of rehabilitation, particularly in circumstances in which the right holder no longer exists to be held accountable. Thirdly, a third party (the right holder) is deriving a substantial benefit from the burden the landowner is subjected to, primarily for its own profit. It is also this third party which holds the obligation to rehabilitate the land in any case. Finally, the societal cost of permitting the landowner to "abandon" or exit ownership would likely be minimal, given that the obligation to rehabilitate the land

114 Watson and Olalde 2019 *J. S. Afr. Inst. Min. Metall.* 639.

115 Milaras, Ahmed and McKay (2014) 10. The right holder remains "responsible for any environmental liability, pollution, ecological degradation, the pumping and treatment of extraneous water, compliance with the conditions of the environmental authorisation and the management and sustainable closure thereof", until such time as the Minister has issued the right holder a closure certificate (s 43(1). The right holder must apply for a closure certificate on once the prescribed closing plan to which her right relates has been completed (S 43(3)(d).

116 Worral *et al* 2009 *J Clean Prod* 1427; Field (2019) 306-308.

117 Cramer (2020) 163.

118 The most important common-law principle in this regard would be that the right holder should exercise its right *civiliter modo*. See *Anglo Operations Ltd v Sandhurst Estates (Pty) Ltd* 2007 2 SA 363 (SCA) para 22; Van der Schyff (2016) 83-84; Badenhorst 2011 *TSAR* 332-333

was never hers to begin with, nor could a private owner (that is not a mining company) ever realistically foot such a bill in any case.[119]

# 3 Legal Responses to Degraded Mining Land

To facilitate an effective FFI, it would be ideal that issues around ownership of and responsibility for land be resolved, in a manner that appropriately balances the interests of all relevant parties. The following section explores two options, these being regulated exit on the one hand, and expropriation on the other. This section further examines examples of mine rehabilitation legislation from Canada and Australia, which would likely be better fits for an FFI, ***if*** one could depend on effective enforcement similar provisions by the State.

## 3 1 A note on the literature and the Draft National Mine Closure Strategy

It is not possible to do a deep dive of the mine closure literature within the limits of this article.[120] Venter, Gbadesesin and Van Wyk provide a comprehensive overview of the literature, noting that previously mine closure focused primarily on "mitigating environmental damage and advancing economic agendas".[121] The social consequences of mine closure were ultimately given little, if any, consideration.[122] The mine closure literature in recent years has sought to address the shortcomings in mine closure planning,[123] stressing the need to build new economics as part of the mine closure process,[124] as well as community involvement in planning for mine closure.[125]

It is necessary to engage with the Draft National Mine Closure Strategy[126] which was published in May 2021. Among the objectives of this strategy include the management of "the closure of mines in a

119 The issue who would foot the bill to address the negative effects of mining, such as acid mine drainage, remains contested. Plans by government to shift a significant part of the cost to existing mining companies to address legacy acid mine drainage through a levy have met with strong resistance, with it being argued it would put the industry under excessive financial strain, and potentially see more mining companies cease to exist. Reuters Staff "South Africa Plans Levy on Mines to Tackle Acid Mine Water Pollution" 2016 https://www.reuters.com/article/us-safrica-mining-water-idUKKCN0YA18H (last accessed 2024-09-19).

120 A comprehensive review of the literature has been done by Venter, Gbadesesin and Van Wyk 'A Scoping Review of the Literature on Mine Closure" in Matebesi, Marais and Nel (eds) *Local Responses to Mine Closure in South Africa: Dependencies and Social Disruption* (2024) 33.

121 Venter, Gbadesesin and Van Wyk (2019) 34.

122 As above.

123 Venter, Gbadesesin and Van Wyk (2019) 38.

124 As above.

125 Venter, Gbadesesin and Van Wyk (2019) 38. See Van Druten and Becker 2017 *J South Afr Inst Min Metall* 485.

126 GN446 GG 44607 of 21 May 2021.

demarcated area in an integrated and sustainable manner, hence ensuring that these mines work together to achieve [a] self-sustaining ecosystem after closure". Further, the strategy seeks to make provision for post-closure "socio-economic sustainability". It also seeks to integrate "environmental management and related closure activities with socio-economic interventions and aligning these with development of a post-closure economy". Khanyile and Marais note that while such objectives are very optimistic, the integration of "environmental and social aspects is an important contribution to mine closure thinking".[127] The FFI finds a comfortable fit with such a strategy, as it aims to remediate the environmental damage of mining while ensuring that economic opportunities are provided to affected communities. The Strategy in fact acknowledges the possibility of using fibre crops to promote economic diversification.

As Khanyile and Marais explain, one of the problems with long-term planning for mining communities is thinking that the same scale of investment for mining will be available for economic diversification.[128] However, such economic diversification "depends on a new economic sector's relatedness to a previous sector, but there are not many economic activities related to mining".[129] The FFI does provide a unique opportunity for economic diversification in circumstances where there are desperately few options to make use of degraded mining land for the benefit of local communities.

## 3 2 The possibility of preventing mining and degradation in the first place

It is conceded that "exit" is an extreme remedy for non-mining landowners. There are potential alternatives, some which may permit a non-mining landowner to control whether mining takes place on their land in the first place. In this respect, the judgment in *Maccsand (Pty) Ltd v City of Cape Town*[130] is particularly important to consider. In this case, Maccsand had been awarded a mining permit to mine the Rocklands dunes as well as the Westridge dune for sand. The dunes in question are located in a residential areas. In terms of the Land Use and Planning Ordinance, 1985 (LUPO),[131] the dunes were zoned as public open space, meaning that unless rezoned, such land could not be used for mining. When Maccsand commenced with mining activities on the Rocklands dunes, the City of Cape Town proceeded to seek an interdict requiring it to cease operations pending the rezoning of the land.

127 Khanyile and Marais "Mine Closure Policies and Strategies in South Africa" in Matebesi, Marais and Nel (eds) *Local Responses to Mine Closure in South Africa: Dependencies and Social Disruption* (2024) 27-28.
128 Khanyile and Marais (2024) 28-29.
129 Khanyile and Marais (2024) 29.
130 2012 4 SA 181 (CC).
131 Now repealed and replaced by the Western Cape Land Use Planning Act, 2015.

It was contended by Maccsand and the Minister of Mineral Resources that LUPO did not apply to land in respect of which a right granted in terms of the MPRDA had been granted. Mining is an exclusive competence of the national sphere of government, which in their view meant that a finding that LUPO applies to such land would permit "an unjustified intrusion of the local sphere into the exclusive terrain of the national sphere of government".[132] However, as the court points out, LUPO does not purport to regulate mining, but rather land use in the Western Cape province.[133] There may be some overlap between the operation of the MPRDA and LUPO, but it cannot be said that this amounts to "an impermissible intrusion by one sphere into the area of another because spheres of government do not operate in sealed compartments".[134] Merely granting a right in terms of the MPRDA does negate the operation of LUPO in regulating land use.[135] Furthermore, the MPRDA does not purport to negate the operation of planning legislation such as LUPO.[136] While LUPO specifically permits the landowner to apply for rezoning of land, it does not preclude the holder of a right granted in terms of the MPRDA from requesting the provincial government to intervene and rezone the land in the event of opposition by the landowner.[137] Ultimately, there is no conflict between LUPO and the MPRDA.[138] Each concerns different subject matter.[139]

Effectively, this judgment does provide landowners some scope to protect their land from mining operations (with the inevitable consequences of its degradation). As Olivier, Williams and Badenhorst point out, the judgment "provides protection to landowners and occupiers in general to the extent that any proposed change in land use can be implemented only if all the authorisations required in terms of a range of legislative instruments have been issued by the individual authorities responsible for the administration of such statutory instruments".[140] However, *Maccsand* would only really provide owners with permanent protection against mining on their land in circumstances in which rezoning for mining purposes is inappropriate.

Where it is an inevitability that the right holder will obtain the necessary authorisations to proceed with operations, including rezoning of the land, non-mining landowners will need other remedies. Obviously, many landowners may wish to retain ownership of their land, viewing it as a long-term investment, and may wish to be a partner in the rehabilitation process, perhaps even being the main beneficiary of a

132 Para 41.
133 Paras 42-43.
134 Para 43.
135 Para 44.
136 Para 44.
137 Para 49.
138 Para 51.
139 Para 51.
140 Olivier, Williams and Badenhorst "*Maccsand (Pty) Ltd v City of Cape Town* 2012 4 SA 181 (CC)" 2012 *PER* 558.

bioremediation project such as an FFI. However, it is contended this should not be required of them, given their lack of agency in the use of their land for mining, which renders the burden on them unjustified. In such circumstances, it will be necessary to look into the possibility of "exit" as outlined above.

## 3 3 Bio-remediation, the Fibrous Future Initiative, and regulated exit

Where the mining company and landowner are the same entity, it is a simple matter. The right holder is responsible for the environmental rehabilitation of the land after all. Furthermore, as landowner, they are responsible for the duty to maintain, and to ensure their land does not pose threats or danger to others. The right holder, as landowner, can sell the land on to another party willing to undertake the FFI, if a buyer can be found.[141] Otherwise, the right holder, in an effort to eventually reverse the negative value of the land, may undertake the FFI as part of its rehabilitation obligations.[142] Such initiatives hold the potential to unlock the dormant positive economic value of land which has not yet been adequately rehabilitated.

In circumstances where the private landowner is not the party responsible for the degradation of and failure to rehabilitate the land, they should be provided with the option of exit from ownership. A consideration of the relevant factors, as noted above, weighs in favour of permitting a landowner to, at a bare minimum, "abandon" or exit ownership. Incentives may be offered to the landowner to encourage her to remain owner and potentially benefit in the long term from the FFI transition on her land.[143] However, there should be no obligation on her to do so. Where the landowner is not committed to the FFI project, in fact, incentives should be offered to her to offload degraded (and likely negatively valued) land.[144] Donation is an option, should there be a party (such as the local community) willing to take transfer of the land.[145] Tax reductions in return for such a donation may be an effective tool.[146]

The question remains as to who, following the landowner's exit, would take ownership and responsibility for the land in question. The default position in South African law, if abandonment were possible, is that the land would become *bona vacantia,* i.e. accrue to the State.[147] It would thus not be rendered *res derelictae,* ownerless, to be potentially claimed by the first taker. Since the landowner's exit would need to be facilitated through legislative reform, i.e. an abandonment statute, such a statute

141 Mostert *et al* (2019) 40.
142 As above.
143 Mostert *et al* (2019) 46-48.
144 Mostert *et al* (2019) 46-47.
145 Mostert *et al* (2019) 48.
146 Mostert *et al* (2019) 47.
147 Van der Merwe and Pope (2007) 492; Van der Merwe (1989) 227; Carey Miller *The Acquisition and Protection of Ownership* (1986) 8-9.

would need to provide to whom the property is directed, if the default position of passing responsibility to the State is not desirable. The statute could leave it open to the State to direct ownership (and thus the responsibility for) the property to a third party, such as the mining company responsible for rehabilitation of the land, if an agreement to this effect can be reached.[148] Another option, if an FFI is to be undertaken, is to direct the land into the ownership of the local community earmarked to benefit from the initiative. Particularly where the cultivation of the land is envisioned as a long-term project, such an arrangement is likely the most desirable, should the community be given the necessary support to ensure its success.

Ideally the transfer of the land can be arranged between the relevant parties themselves, i.e. landowner, State, local community, and/or right holder (if still in the picture). The landowner should be required to attempt to reach some form of "abandonment agreement" or donation agreement with one of the relevant parties.[149] Ideally, an abandonment statute should provide for the process to be followed by the landowner in attempting to reach such an agreement.[150] However, where the landowner finds herself in a situation where no party is willing to cooperate with her, an abandonment statute could provide for a landowner to approach the court for relief.[151] In this respect, an abandonment statute should provide for the procedure to be followed by the landowner in approaching the court, how interested parties may be notified, and which parties should be joined.[152] An abandonment statute should also provide the parameters within which to consider any application by a landowner to divest herself of ownership, informed by the factors outlined above.[153]

A legal framework, provided for by such a statute, in which ownership of degraded mining land is directed to parties committed to the FFI would align with the social-obligation norm as outlined by Alexander. The property would be used in a manner which enables not only the current owner to flourish, but surrounding communities as well, who will benefit from the FFI. New economic opportunities combined with the reduction of harm posed by degraded mining land are critical in this respect. It further corresponds with a legal framework which in general seeks to ensure someone remains responsible for otherwise unwanted property, and should take the proper steps in disposing of such property.[154]

148 Cramer (2020) 200.
149 Cramer (2020) 192.
150 Cramer (2020) 193.
151 Cramer (2020) 191ff.
152 Cramer (2020) 195-196.
153 Cramer (2020) 196.
154 See in general Peñalver 2010 *Mich L Rev*; Cramer "Waste as Property: The Law's Role in Maximising Value" 2022 *SAJS* 1.

Whoever ultimately acquires ownership of the degraded mining land should be required to commit to the FFI project.[155] Inevitably, by taking on ownership of the degraded mining land, they take on the burden associated therewith, and the duty to maintain that land in particular. Where it is a local community taking on ownership of such degraded mining land, they need to be capacitated to meet its obligations to maintain the land and ensure the success of the FFI. Such could potentially be supported through the effective implementation of a mine rehabilitation fund along the lines of the Western Australian model, which is discussed below. Appropriate incentives and support would need to be offered, particularly to affected communities, given the task of rehabilitating the land.[156] It is, however, beyond the scope of this article to delve into what form such incentives and capacity building may take.

## 3 4 Expropriation (for nil compensation?)

Where land is degraded and is not currently being put to any productive use, the State could consider using expropriation as a tool to facilitate FFIs.[157] The Constitution provides for expropriation in terms of a law of general application where property is required for a public purpose or in the public interest.[158] Expropriation is subject to the requirement to pay compensation,[159] and the amount of compensation be just and equitable in view of all relevant circumstances.[160] For the purposes of section 25 of the Constitution, the public interest "includes the nation's commitment to land reform, and to reforms to bring about equitable access to all South Africa's natural resources".[161] The expropriation of degraded mining land for the purposes of facilitating an FFI that benefits the local community would appear to fit within this definition of the public interest. Thus, so long as the expropriation takes place in terms of a law of general application and just and equitable compensation is paid, there is little reason to think an FFI would not provide a justifiable basis for expropriation. Expropriation could be an option in circumstances in which the landowner requests to be expropriated, does not wish to cooperate with an FFI, or cannot be traced and is thus not present and exercising any control over her land.

One of the features of the new Expropriation Act[162] is the provision for expropriation against payment of nil compensation where land is required in the public interest. The Act sets out the circumstances in which it may be just and equitable to calculate compensation at nil,

155 Mostert *et al* (2019) 40.
156 Mostert *et al* (2019) 40.
157 Mostert *et al* (2019) 48-49.
158 S 25(2)(a).
159 S 25(2)(b).
160 S 25(3).
161 S 25(4)(a).
162 Expropriation Act 13 of 2024. As of writing in October 2025, the commencement date for this Act has not yet been proclaimed.

which includes "where an owner has abandoned the land by failing to exercise control over it despite being reasonably capable of doing so", despite the position in the Deeds Registry.[163] In respect of degraded mining land, a non-mining landowner is unlikely to be able to exercise any effective control (in fact, the land may be subject to illegal mining by criminal syndicates that even the State may struggle to remove),[164] though it can be argued that in such circumstances they clearly are not reasonably capable of doing so. It should be noted that the Act provides that the circumstances under which it may be justifiable to calculate compensation at nil are not limited to those explicitly listed.[165]

Where a party other than the State (such as the local community) is earmarked to take responsibility for the land, the Act appears to make provision for third-party transfer. The effect of an expropriation is that "ownership of the property … vests in the expropriating authority *or in the person on whose behalf the property was expropriated*".[166] It would thus appear possible, in terms of the Act, for degraded mining land to be expropriated for parties who wish to undertake an FFI.

Expropriation thus appears to be the simplest existing tool to harness to settle issues of ownership and responsibility for degraded mining land, particularly in the framework envisioned by the Expropriation Act. However, while the Act may provide for expropriation for nil compensation in the above circumstances, which may ultimately be to the benefit of the registered owner of degraded mining land, it does not oblige the State to expropriate. The State, through the relevant Minister,[167] still has to exercise its discretion to expropriate (and thus take responsibility for) property, even if empowered to do so against payment of nil compensation. If the State remains uncommitted or unwilling to provide the necessary investment and support, it is unlikely it would exercise its power to expropriate degraded mining land, even for nil compensation. In particular, given the implications for the public purse of such expropriation of degraded mining land, it is unlikely the State's power of expropriation would ever be exercised to provide relief for non-mining landowners. As the estimated cost of mine rehabilitation sat at R100-billion in 2017[168] and has undoubtedly substantially

163 S 12(3)(c). The definition of abandonment in this section clearly differs from the definition of abandonment at common law. The consequence of the latter is that ownership is terminated, and the unwanted property may thus be acquired by the first taker (*Reck v Mills* 1990 1 SA 751 (A) 757D). S 12(3)(c) of the Act clearly envisages that the property in question still has a registered owner, and for ownership relationship to be terminated, the property must be expropriated, even if for nil compensation.

164 Felix "The Police Cannot Deal with Zama Zamas on Its Own, Cele Tells Parliament" 2022 https://www.news24.com/news24/politics/parliament/the-police-cannot-deal-with-zama-zamas-on-its-own-cele-tells-parliament-20220811 (last accessed 2024-09-23).

165 S 12(3).

166 S 9(1)(a). On expropriation party transfers, see Slade "'Public Purpose or Public Interest' and Third Party Transfers" 2014 *PER* 167.

167 See S 3.

increased, the State would likely avoid using its power of expropriation in such circumstances. In the absence of such willingness by the State to expropriate, it is necessary that the option of regulated exit for the landowner, outlined in section 5 above, be available.

## 3 5 Comparative analysis: international best practice and alternatives to "exit"

South Africa is not alone in rendering the unilateral abandonment of landownership impossible.[169] Scotland serves as a good example of a jurisdiction in which landowners may not abandon landownership.[170] This position was made clear in *The Scottish Environmental Protecton Agency v The Joint Liquidators of the Scottish Coal Company*,[171] concerning land on which open-cast mining had been conducted by the Scottish Coal Company. Briefly, the liquidators sought to abandon the sites, as the cost of maintaining the land would inevitably leave the company's unsecured creditors with nothing.[172] When the matter came before the Inner House of the Court of Session, it was ultimately decided that land could not be abandoned unless provided for by law.[173] As there was no procedure for the "transfer [of] land into oblivion", it was not open to the owner to abandon ownership therein.[174]

Evidently, jurisdictions with significant mining industries need to ensure someone remains responsible for degraded mining land. Non-mining landowners in South Africa are faced with unique challenges though. Despite legislation and regulations which are good on paper and should result in effective rehabilitation *if* enforced, the country's track record of mine closure is particularly poor. Given that non-mining landowners do not profit from mining on their land (they only stand to benefit in their capacity as members of the public),[175] it is argued that expecting them to retain the burden of ownership may be unjustified. Nevertheless, it is ideal to look at the approach in other jurisdictions which are more in line with best practice, and would perhaps provide a more comfortable fit with a bioremediation project such as an FFI, if properly enforced.

168 Van Druten and Becker 2017 *J South Afr Inst Min Metall* 485.
169 In fact, few jurisdictions permit the unilateral abandonment of landownership. It would only appear to be an entitlement of ownership in jurisdictions where the social and environmental costs of abandonment of negligible or non-existent, for example, Switzerland. See Cramer 107-125.
170 Combe and Rudd "Abandonment of Land and the *Scottish Coal* Case: Was it Unprecedented?" 2018 *The Edinburgh Law Review* 301.
171 [2013] CSIH 108.
172 *Joint Liquidators of the Scottish Coal Company Limited* [2013] CSOH 124 (CSOH) paras 6-8.
173 Paras 100-101
174 As above.
175 Van der Schyff (2016) 601.

Ontario's Mine Rehabilitation Code[176] is comprehensive. Among other things, it has a detailed section on revegetation of degraded mining land. The objectives of the section on revegetation include ensuring sufficient vegetative growth occurs to (1) stabilise surface materials, (2) "enhance natural vegetation growth and establish a self-sustaining vegetation cover", and (3) "support the post-closure state".[177] Sufficient vegetation growth is a prerequisite for a site to be considered closed.[178] The code further contains inspection and maintenance provisions for revegetation.[179] Evidently, legislation and regulations which provide similar vegetation requirements would be ideal to promote FFIs as an option for rehabilitating degraded mining land, especially if adapted to provide for bioremediation that unlocks new economic opportunities.

Western Australia's Mining Rehabilitation Fund has already been suggested as a model which South Africa should follow.[180] The fund was established in terms of the Mining Rehabilitation Fund Act 2012. The fund's main purpose is to ensure funding for the rehabilitation of abandoned mines, as well as other land affected by mining.[181] The Fund is funded via a levy imposed on the holders of mining authorisations,[182] thus shifting the burden of rehabilitating abandoned mines onto the mining industry.[183] Obviously, a similar levy would face stiff opposition from the mining industry in South Africa. A previous suggestion that the mining industry contribute two thirds of the cost of cleaning up acid mine drainage was met with the claim that it would result in bankruptcies and mine abandonment.[184] Nevertheless, it is contended that such a levy for a mine rehabilitation fund would place the burden of addressing the impact of degraded mining land on the right parties. While the establishment of a mine rehabilitation fund in South Africa has been mooted,[185] as of writing it does not appear to have become a reality.

176 Mine Rehabilitation Code of Ontario 2024.
177 S 68(1).
178 S 68(2).
179 S 77-79.
180 Klopper and Wessels "Investigation of Western Australia's Rehabilitation Fund as a Fiscal Policy Solution for South African Abandoned Mines" 2017 *J. S. Afr. Inst. Min. Metall.* 1081; Mokgothu "South Africa Urged to Adopt Sustainable Model for Mine Rehabilitation" 2025 https://news.nwu.ac.za/south-africa-urged-adopt-sustainable-model-mine-rehabilitation (last accessed 2025-08-12).
181 S 6(1).
182 S 11(1).
183 Klopper and Wessels Mokgothu "South Africa Urged to Adopt Sustainable Model for Mine Rehabilitation" 2025 https://news.nwu.ac.za/south-africa-urged-adopt-sustainable-model-mine-rehabilitation (last accessed 2025-08-12).
184 News24 "Proposed 'Water Tax' Unfair – Ratepayers' Association" 2016 https://www.news24.com/SouthAfrica/News/proposed-water-tax-unfair-ratepayers-association-20160519 (last accessed 2024-08-12).
185 Parliamentary Monitoring Group "Status of Mining Rehabilitation Fund; Cadastral System and Licensing Backlog; Regional Offices Investigation; with Minister" 2022 https://pmg.org.za/committee-meeting/35954/ (last accessed 2025-08-12).

Furthermore, as Badenhorst has pointed out, the compensation provisions in Western Australia's Mining Act 1978 are superior to section 54 of the MPRDA.[186] In particular, the Act provides a detailed list of items for which a landowner or lawful occupier may be entitled to compensation, including "social disruption" or any reasonable expense "arising from the needs to reduce or control the damage resulting from or arising from the mining".[187] Ideally, section 54 of the MPRDA should be amended along these lines to better protect the interests of non-mining landowners.[188]

It is conceded that these examples provide models that South Africa should seek to emulate. They do provide a better fit for an FFI project. However, in light of the current challenges in achieving mine closure in South Africa, it is contended that non-mining landowners need to be provided with the option to "exit". Ideally, they should be supported in participating in an FFI should they wish to engage in one, but if not committed, ownership of the land should be directed to another party. Given the limitations of this article, it is not possible to expand on this comparative analysis.

### 3 6 Challenges for bioremediation

It is beyond the scope of this paper (and the author's own expertise) to engage with the scientific and technical complexities of the proposed bioremediation of degraded mining land. The limitations and challenges have been acknowledged in reports by other reports from the COP.[189] For example, Harrison *et al* note that fibre crops are likely to grow better in soils characterised by low to moderate contamination, while heavily contaminated mining land is not recommended for fibrous plants.[190] A two-stage process is required where land is heavily contaminated – before the planting of fibrous plants takes place, remediation or partial remediation of the land should take place.[191]

## 4 Conclusion

The proliferation of degraded mining land, which has not been rehabilitated, affects both registered landowners of such land as well local communities. Neither of these parties are in a position to simply walk away, being bound to the land either by physical proximity or a legal relationship that can only be extinguished when provided for by the

186 Badenhorst 2011 *TSAR* 335-337.
187 S 123(4).
188 Badenhorst 2011 *TSAR* 335-337.
189 Harrison *et al* (2019) 29-30.
190 As above.
191 As above.

law.[192] It is thus imperative that the law provide fair and equitable relief to both. The FFI offers such an opportunity, although it necessitates settling the important question of ownership and responsibility for degraded mining land.

Landowners, in view of the social-obligation norm of property law which finds expression in the Constitution, may be expected to tolerate certain burdens. But where the burden associated may be viewed as inequitable, it is necessary to consider the appropriate allocation of burdens. A consideration of the balance of interests in respect of degraded mining land weighs in favour of providing a form of regulated exit for non-mining landowners. These landowners are never guaranteed the return of possession of their land back in a rehabilitated state. The duty to rehabilitate the land does not rest with them. It would seem inequitable to expect them to remain registered owners, and thus responsible for, land they can no longer put to productive use for reasons beyond their control. Options include an abandonment statute, encouraging donation through incentives, or expropriation for nil compensation. The last option depends heavily on the State's commitment to the FFI, as there is no obligation on the State to expropriate (and take responsibility for) degraded mining land. As such, avenues for the first two options should exist alongside the option of expropriation.

Ideally, the models for mine rehabilitation in Ontario and Western Australia should be adopted (and their provisions enforced), as they provide a better fit with an FFI. However, given South Africa's track record of enforcing mine closure and rehabilitation, despite existing legislation and regulations, "exit" should be an option for non-mining landowners who do not wish to participate in an FFI.

Degraded mining land by its nature is a negative-value asset, one which poses a danger to the environment and human health. It is essential that someone take responsibility for such a dangerous, negative-value asset. The possibility of bio-remediation, through the FFI, provides an opportunity to unlock to dormant positive value of degraded mining land, while also providing economic opportunities to local communities. Ideally, any legal framework which provides for a regulated exit for landowners should in turn ensure that ownership is directed to a party committed and capable of giving effect to the FFI in the long-term.

192 While not a South African case, the remarks of the Inner House of the Court of Session in Scotland in respect of the extinguishment of ownership of property, particularly in respect of land, are instructive: "With ownership of land, however, the existence of the written record is important since it renders the fact of ownership public and, subject to the operation of law, perm See *The Scottish Environment Protection Agency v The Joint Liquidators of the Scottish Coal Company Limited* [2013] CSIH 108 para 100.