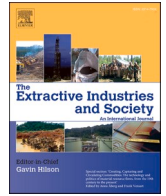


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Original article

Mining governance and green energy transitions: Developmental implications for the global south

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ABSTRACT

The development of renewable energy technologies (RETs) is fundamental for the global transition to a low-carbon economy. However, at scale, the transformation is highly dependent on a significant increase in the extraction of critical minerals, creating both challenges and opportunities for resource-rich countries in the Global South. This editorial introduces the Special Issue, 'Mining Governance and Green Energy Transitions: Developmental Implications for the Global South', situating its 18 contributions within ongoing debates on green extractivism, resource governance, industrial policy and local development. As a body of work, the papers demonstrate that green energy transitions are politically and socially contested, highlighting how uneven developmental outcomes are shaped by interactions between state capacity, industrial strategy, institutional arrangements, and community agency. The collection of papers underscores the need for coordinated, context-specific approaches to mining governance, to ensure that the green energy transition supports inclusive and sustainable development at all points across energy transition mineral supply chains.

1. Introduction

The global necessity to transition from carbon-intensive energy systems to net-zero economies is one of the defining challenges of our time. International frameworks, such as the Paris Agreement or the UN Sustainable Development Goals (SDGs), alongside national and regional decarbonisation strategies, have established ambitious targets for reducing greenhouse gas emissions. Central to these strategies is the move away from fossil fuel dependence towards renewable energy technologies, alongside the rapid diffusion of electric vehicles (EVs) and new energy storage systems. Yet, while these ambitions are often framed as pathways to a cleaner and more sustainable future, they tend to obscure the resource-dependencies and socio-political dimensions underpinning the transition. The widespread shift to low-carbon economies is, in fact, highly mineral intensive, relying on the extraction of key 'energy transition minerals' (ETMs), such as cobalt, lithium, nickel, copper, and rare earth elements. Many of these key resources are predominantly sourced in the Global South (Baker et al., 2014).

The geographical concentration of critical mineral deposits in lower-income countries of the Global South brings the development implications for producing countries into sharper focus. Resource-rich regions in Africa, Latin America and Asia are increasingly positioned as key

suppliers of raw materials for a green global economy, creating potential opportunities for industrial upgrading, economic diversification and the stimulation of forwards and backwards linkages. However, history suggests that decades of resource extraction and uneven development in the Global South have frequently been associated with the so-called 'resource curse', characterised by enclave production, limited local beneficiation, environmental degradation, and social conflict (Auty, 1993; Ross, 2012; Bebbington et al., 2008). The tensions between these opportunities and risks underpin the central question at the heart of this Special Issue: will the green energy transition foster sustainable development and equitable outcomes, or will it reproduce – or potentially deepen – historical inequalities?

This Special Issue brings together 18 contributions that explore the socio-political, economic, and environmental dimensions of critical mineral extraction in the context of the green energy transition. The papers collectively examine how extraction, supply chain governance, and industrial policies intersect in different national, regional and sectoral contexts, highlighting the complex, uneven, and contested nature of transition-driven mining. Rather than presenting the green energy transition as a neutral process, the collection of papers situates it within longer trajectories of extractivism, political economy and global capitalism, offering a critical lens to explore the conditions under which

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mineral booms can support, or undermine, development outcomes (Bridge, 2004; Offenheiser and Slack, 2026; Svampa, 2019). In this editorial introduction, we organise and critically discuss the contributions around four interrelated thematic clusters: 1) green extractivism and the political economy of transition minerals; 2) resource nationalism, industrial policy and value-chain upgrading; 3) governance, sustainability initiatives and corporate power; and 4) communities, participation and uneven development. We begin with green extractivism, which provides a critical entry point into the dynamics explored across the collection.

2. Green extractivism and the political economy of transition minerals

Green extractivism has emerged as a key lens for understanding the intensification of resource extraction driven by growing policy commitments to climate mitigation and a low-carbon energy transition (Archer and Calvao 2024; Bainton et al. 2021; Franz and McNelly 2024; IEA 2021; Radley 2023; United Nations 2025; Zhou and Manberger 2024). Across the contributions in this Special Issue, it provides a critical framework for challenging the assumption that decarbonisation automatically reduces environmental and social burdens. Instead, the papers show how rising demand for ETMs is often associated with the expansion of extraction frontiers, the intensification of territorial conflicts, and the proliferation of complex governance challenges (VanDeveer et al., 2023).

The contribution by McNelly and Franz (2024) argues that mainstream anglophone scholarship on the green energy transition tends to overlook the global forces that shape its course. The authors show how concentrated finance and Wall Street's "de-risking" approach shapes the unfolding of the transition, but they also highlight a lack of engagement with the structural drivers of climate change, most notably colonialism and capitalism. Their work highlights the significant inequalities this creates, especially in Latin America, and calls for more critical attention to the social and political impacts of the transition.

Building on this global perspective, Balcázar and Argento (2026) provide a situated case study on lithium extraction in the Puna de Atacama, in Chile and Argentina. Through their longitudinal research, they demonstrate how extraction in indigenous and rural territories is legitimised through a 'governance of dispossession', whereby multinational companies, state actors, and civil society organisations collaborate to secure access to minerals under the banner of responsible mining. These arrangements highlight how green extractivism is simultaneously a material, social, and political process, but one that also reshapes territories and intensifies local inequalities (Bebbington et al. 2008; Fairhead et al., 2012).

Further contributions in the Special Issue build on this discussion by focusing on global supply risks and material constraints. Nagy et al. (2024), for example, examine whether the European Union will be able to secure sufficient critical minerals to meet its 2030 EV targets, potentially revealing drastic shortages in graphite, nickel, and cobalt. Gabbay de Souza et al. (2026), in turn, highlight the social and environmental risks associated with critical mineral extraction in Brazil, emphasising ecosystem degradation, water scarcity, and impacts on local catchment communities. Together, these contributions underscore that green energy transitions are far from neutral. They are deeply political, resource-intensive and socially contested, with implications that go far beyond local extraction sites, and extend to global supply chains.

3. Resource nationalism, industrial policy and value-chain upgrading

A second thematic cluster in this collection focuses on state strategies for industrialisation and value capture in the context of rising global demand for critical ETMs. Building on debates that concern resource nationalism, industrial policy, and global value chains (e.g., see

Caramento et al. 2023; Karkare 2024; Warburton 2023), several papers in the Special Issue explore how mineral-rich developing countries attempt to leverage resource endowments for economic transformation, while highlighting the structural and institutional barriers that shape outcomes.

Special Issue contributions by Cervantes Barron et al. (2024); Deberdt (2024); Johnson et al. (2024), Khalil and Broughel (2025); Mindreau (2025), and Warburton (2024) all explore these dynamics, focusing on different contexts across Africa, Latin America, and Asia. Deberdt (2024), for example, analyses the Democratic Republic of the Congo's ambitions to move into battery production, highlighting infrastructural bottlenecks, geopolitical pressures, and entrenched extractive political economies that limit upgrading. Cervantes Barron et al. (2024), on the other hand, examine downstream efforts in Zambia, emphasising the dominance of foreign firms, constrained local capacity, and the risks of 'value addition' agendas which reinforce neocolonial dependencies. Both cases suggest that industrial upgrading is as much a question of institutional and political arrangements as it is of resource endowment.

Indonesia's nickel sector provides another striking illustration of how resource nationalism is playing out in mineral-rich countries in the Global South. The contribution by Warburton (2024) introduces the concept of "nationalist enclaves" to describe industrial parks that simultaneously achieve resource nationalist objectives, while reproducing highly concentrated ownership structures. Benazir Khalil and Broughel (2025) further examine the divergence between Indonesia's stainless-steel industry, which has successfully expanded exports and domestic value-added, and its EV battery sector, which has been subjected to technological and infrastructural limitations. Together, these analyses highlight the selective nature of industrial success and the ways in which resource nationalist policies intersect with global value chains, foreign investment, and technological complexity (Chang and Andreoni, 2020; Khan, 2010).

These themes are further extended by contributions focusing on Latin America from Gonzalez Jauregui (2024) and Johnson et al. (2024), who examine the role of foreign capital, most notably from China in Argentina's lithium sector, and broader strategies in the Lithium Triangle (Chile, Argentina, Bolivia). Collectively, these papers highlight the tension between foreign dominance and state-led efforts to exert control over production and capture value locally. Despite favourable market conditions, state efforts are often constrained by institutional legacies, weak social and political mobilisation, and the dominance of global capital. This reinforces arguments that suggest upgrading in peripheral economies requires both strategic state intervention and favourable structural conditions. Mindreau (2025) extends this analysis to Brazil, exploring how the extraction of rare earths is being mobilised to support a broader industrial policy agenda under the Lula da Silva government. Finally, Smith's (2025) contribution further adds a regional geopolitical perspective, illustrating how South Africa acts in complex ways in relation to Zambia's green mineral reserves, challenging simplistic 'sub-imperial' interpretations and highlighting the dynamic interplay between regional and global politics. On balance, these contributions demonstrate that resource nationalism and industrial policy remain central to understanding the developmental trajectories of mineral-rich countries. However, outcomes still often remain uneven and are strongly shaped by governance, institutional capacity, and the political economy of global markets.

4. Governance, sustainability initiatives and corporate power

A third thematic cluster examines the growing adoption of sustainability initiatives, voluntary standards, and responsible sourcing frameworks in critical mineral supply chains. While these initiatives are often heralded as ways to reduce social and environmental harm, there is a growing literature which suggests that they reflect unequal relations and deliver uneven benefits, particularly in the local catchment communities of producing countries (e.g., see, Deberdt and LeBillon, 2021;

Gulbrandsen, 2010; Power, 1999).

In this Special Issue, Severiano et al. (2024) examine the global drivers and barriers shaping the corporate uptake of voluntary sustainability initiatives (VSIs). They show that market access, reputational concerns, and company-community communications drive adoption, but that greenwashing, inadequate risk assessment, and limited comprehensiveness undermine effectiveness. Building on this analysis, Arian et al. (2025) frame responsible cobalt sourcing in the DRC as an 'assemblage', emphasising its complexity, dynamism and labour intensity, while showing that it delivers limited benefits for artisanal mining communities. Obaya et al. (2024) extend this discussion through their analysis of sustainability initiatives in the context of South American lithium mining, revealing that these initiatives prioritise the concerns of importing regions while often overlooking local economic development needs.

Collectively, these contributions underscore that private and hybrid governance mechanisms are deeply political, and are shaped by global market demands, corporate strategy, and uneven state capacity. They point to the need for stronger regulatory oversight and capacity building to ensure that sustainability initiatives align with broader developmental objectives, rather than simply legitimising 'business as usual' in extractive operations (Li, 2007; van der Ven et al. 2021).

5. Communities, participation and uneven development

Finally, a fourth thematic cluster in the Special Issue focuses on local-level socio-economic impacts, participation, and governance outcomes. Moving beyond stale "resource curse" narratives, these papers examine the conditions under which ETM extraction generates developmental benefits, and how governance, geography, and institutional arrangements mediate outcomes (Bebington et al., 2008; Hilson and Maconachie, 2016; Mangani et al., 2025; Ross, 2012).

In the contribution by Lapeyronie & Szedlacsek (2025), a quantitative analysis of 94 African critical mineral mines is undertaken, to demonstrate how mining can generate positive local economic effects, particularly in remote areas. However, their analysis also highlights that these effects are mediated by the quality of governance and institutional capacity. Wang et al. (2024) introduce the Mineral-Energy Nexus for Development (MEND) framework in the context of Chinese lithium mining in Zimbabwe, to illustrate the potential for extractive projects to contribute to local electrification, climate mitigation, and redistributive revenues for energy sector reform. At the same time, however, their paper also highlights a lack of regulatory and financial support to realise these benefits.

Further contributing to this thematic cluster, Hofmeyr (2025) explores corporate-led participatory mechanisms in South Africa's platinum sector, demonstrating how participation can reproduce elite capture, shift burdens onto community actors, and deepen mistrust in contexts where institutional guidance is weak. Her study resonates well with broader debates in political ecology and critiques within development geography that position participation as a site of power, rather than merely a neutral mechanism for inclusion (Lund 2016; Maconachie, 2010; Ribot and Peluso, 2003).

Together, these contributions demonstrate that the benefits of mineral extraction are uneven, depending heavily on the type of mineral, quality of governance, institutional strength, and the ability of communities to influence decisions. They highlight how extraction interacts with local politics and development, underscoring the need for governance that is closely aligned with local contexts.

6. Conclusion: rethinking development and the green energy transition

Across the collection of papers in this Special Issue, several cross-cutting themes emerge. Above all, the drivers for green extractivism illustrate that decarbonisation is highly materially and politically

charged, generating both opportunities and challenges for resource-rich countries. Resource nationalism and industrial policy are critical for determining who captures value. Yet, outcomes are often uneven due to structural constraints, technological complexity, and global market dynamics. Governance and sustainability initiatives operate as hybrid, multi-actor assemblages, whose effectiveness is constrained by power asymmetries and misaligned incentives. And crucially, even when good governance and inclusive, participatory process are in place, local development outcomes are not automatic – they depend on institutions, participation processes, and the ability of communities to claim and exercise their rights.

The papers in the Special Issue also show notable variation across regions. The African cases tend to highlight infrastructural and institutional limitations, as well as dependency on foreign capital (Cervantes Barron et al., 2024; Deberdt, 2024; Lapeyronie and Szedlacsek, 2025; Wang et al., 2024). Latin American cases illustrate both the potential and limitations of state-led industrial policy, most notably within the Lithium Triangle and Brazil's rare earth sector (Balcázar and Argento, 2026; Gonzalez Jauregui, 2024; Gabbay de Souza et al., 2026; Johnson et al., 2024; Mindreau, 2025; Obaya et al., 2024). Southeast Asian examples, most notably in Indonesia, reveal how resource nationalist policies can generate sectoral successes alongside enclave dynamics and uneven social outcomes (Benazir Khalil and Broughel, 2025; Warburton, 2024). By comparing and contrasting these cases across different geographies and contexts, the Special Issue highlights how structural, political, and social factors interact, all playing a role in shaping the green energy transition and influencing developmental outcomes.

Overall, the papers collectively demonstrate that green energy transitions are deeply political, resource-intensive, and socially contested. Critical ETMs are not merely inputs into low-carbon technologies; they are embedded in global political economy structures and shaped by both the historical legacies of extractivism and contemporary systems of governance. As this collection illustrates, development outcomes vary widely and depend on state capacity, industrial policy choices, governance quality, and the ability of communities to influence decision-making.

These insights call for a critical 're-think' of both scholarship and policy. The expectation that transition minerals will deliver inclusive development is far from guaranteed. Realising positive outcomes requires strategic industrial policy, robust governance frameworks, and inclusive participatory mechanisms, alongside more equitable engagement with global market actors. At the same time, critical scholarship must continue to interrogate the political, social, and ecological trade-offs inherent in green extractivism, ensuring that debates about decarbonisation do not hide the uneven and contested realities that currently exist on the ground.

By bringing these perspectives together, this Special Issue invites further scholarship to reconsider green energy transitions and extractive-led development as deeply interconnected processes. The 18 contributions that follow provide empirically grounded and conceptually rich analyses of mining governance across diverse contexts, collectively illuminating the uneven geographies and contested politics of the low-carbon transition. In doing so, they underscore the urgency of grounding energy transition pathways in more just, inclusive and place-based forms of resource governance.

CRediT authorship contribution statement

Roy Maconachie: Writing – review & editing, Writing – original draft, Conceptualization. **Ben Radley:** Writing – review & editing. **Aidan Barlow:** Writing – review & editing. **Yixian Sun:** Writing – review & editing.

References

- Arian, H., Mwishamali Lukobo, E., Geenen, S., Katz-Lavigne, S., 2025. The responsible cobalt sourcing assemblage: thinking through a booming governance framework. *Extract. Industr. Soc.* 22, 101613.
- Archer, M., Calvao, F., 2024. Sustaining decarbonisation: energy storage, green extractivism, and the future of mining. *Antipode* 57 (4), 1259–1279.
- Auty, R., 1993. *Sustaining Development in Mineral Economies: The resource Curse Thesis*. Routledge, London.
- Bainton, N., Kemp, D., Lebre, E., Owen, J.R., Marston, G., 2021. The energy-extractives nexus and the just transition. *Sustain. Develop.* 29 (4), 624–234.
- Baker, L., Newell, P., Phillips, J., 2014. The Political economy of energy transitions: the case of South Africa. *New Polit. Econ.* 19 (6), 791–818.
- Balcázar, R.M., Argento, M., 2026. From socio-environmental conflict to responsible lithium mining. Understanding the governance of dispossession from the salt flats of Chile and Argentina. *Extract. Industr. Soc.* 25, 101724.
- Bebbington, A., Humphreys Bebbington, D., Bury, J., Lingan, J., Muñoz, J.P., Scurrah, M., 2008. Mining and social movements: struggles over livelihood and rural territorial development in the Andes. *World Dev* 36 (12), 2888–2905.
- Benazir Khalil, S., Broughel, A., 2025. Stainless success, battery lag: evaluation of Indonesia's resource nationalism in nickel. *Extract. Industr. Soc.* 23, 101677.
- Bridge, G., 2004. Mapping the bonanza: geographies of mining investment in an era of neoliberal reform. *Profes/ Geogr.* 56 (3), 406–421.
- Caramento, A., Saunders, R.G., Larmer, M., 2023. The return of resource nationalism to Southern Africa – introduction. *J. South Afr. Stud.* 49 (3), 339–357.
- Cervantes Barron, K., Clube, R.K.M., Chabala, R., Matokwani, M., Chikwamo, M.J., 2024. Value addition for who? Challenges to local participation in downstream critical mineral ventures in Zambia. *Extract. Industr. Soc.* 20, 101554.
- Chang, H.-J., Andreoni, A., 2020. Industrial policy in the 21st century. *Dev. Change* 51, 324–351. <https://doi.org/10.1111/dech.12570>.
- Deberdt, R., 2024. Will Congo move up the battery supply chain? Strategic capitalism, friendshoring, and localized manufacturing in the time of the green transition. *Extract. Industr. Soc.* 19, 101495.
- Deberdt, R., LeBillon, P., 2021. Conflict minerals and battery materials supply chains: a mapping review of responsible sourcing initiatives. *Extract. Industr. Soc.* 8 (4), 100935.
- Fairhead, J., Leach, M., Scoones, I., 2012. Green grabbing: a new appropriation of nature? *J. Peas. Stud.* 39 (2), 237–261.
- Franz, T., McNelly, A., 2024. The 'finance-extraction-transitions nexus': geographies of the green transition in the 21st century. *Antipode* 56 (4), 1289–1307.
- Offenheiser, R., Slack, K., 2026. Unlearned lessons: an historical view on the critical minerals rush and its implications for local communities. *Extract. Industr. Soc.* 27, 101916.
- Gabbay de Souza, R., Domingues, A.M., Mancini, S.D., 2026. Supply of critical raw materials for lithium-ion batteries: social and environmental risks in Brazil. *Extract. Industr. Soc.* 25, 101810.
- Gonzalez Jauregui, J., 2024. Chinese investments in Argentina's lithium sector: economic development implications amid global competition. *Extract. Industr. Soc.* 20, 101551.
- Gulbrandsen, L.H., 2010. *Transnational Environmental governance: The emergence and Effects of the Certification of Forestry and Fisheries*. Edward Elgar Publishing, Cheltenham.
- Hilson, G., Maconachie, R., 2016. Fair trade mineral programs in sub-saharan africa: some critical reflections. *Natural Resource Extraction and Indigenous Livelihoods: Development Challenges in an Era of Globalization*. Taylor and Francis, pp. 261–272.
- Hofmeyr, J., 2025. How do mining companies induce community participation? Processes, rationales and contestation in South Africa's platinum-rich Limpopo Province. *Extract. Industr. Soc.* 23, 101673.
- IEA, 2021. *The Role of Critical Minerals in Clean Energy Transitions*. International Energy Agency, Paris.
- Johnson, C.A., Clavijo, A., Lorca, M., Olivera Andrade, M., 2024. Bringing the State Back in the Lithium Triangle: An institutional Analysis of Resource Nationalism in Chile, 20. *The Extractive Industries and Society, Argentina, and Bolivia*, 101534.
- Karkare, P., 2024. *Resource Nationalism in the Age of Green industrialisation*. Discussion paper no. 365. ECDPM, Brussels.
- Khan, M., 2010. *Political Settlements and the Governance of Growth-Enhancing institutions*. Research Paper 2. School of Oriental and African Studies, London.
- Lapeyronie, H., Szedlaczek, E., 2025. Mining in Africa: are local communities paying the price of the global energy transition? *Extract. Industr. Soc.* 21, 101565.
- Li, T.M., 2007. *The Will to improve: Governmentality, development, and the Practice of Politics*. Duke University Press, Durham, NC.
- Lund, C., 2016. Rule and rupture: state formation through the production of property and citizenship. *Dev. Change* 47 (6), 1199–1228.
- Maconachie, R., 2010. New spaces for change? Diamond governance reforms and the micro-politics of participation in post-war Sierra Leone. *Pub. Admin. Dev.* 30 (3), 191–202.
- Mangani, P., Khan, D.G., Ahmad, N., 2025. Sustainable governance, conflict and environmental justice in critical mineral extraction in Latin America and Africa. *Peace Sustainab.* 1 (3), 100017, 2025.
- McNelly, A., Franz, T., 2024. Making and unmaking the actually existing hegemonic green transition. *Extract. Industr. Soc.* 20, 101525.
- Mindreau, M., 2025. Relaunching industrial policy in Brazil: what have rare earths got to do with it? *Extract. Industr. Soc.* 25, 101723.
- Nagy, E., Al-Jurani, H., Xydis, G., 2024. Will the EU have enough minerals to drive their electric dreams by 2030? *Extract. Industr. Soc.* 20, 101556.
- Obaya, M., Murguía, D.L., Sánchez-López, D., 2024. From local priorities to global responses: assessing sustainability initiatives in South American lithium mining. *Extract. Industr. Soc.* 19, 101509.
- Power, M., 1999. *The Audit society: Rituals of Verification*. Oxford University Press, Oxford.
- Radley, B., 2023. Green imperialism, sovereignty, and the quest for national development in the Congo. *Rev. Afr. Polit. Econ.* 50 (177–178), 322–339.
- Ribot, J.C., Peluso, N., 2003. A theory of access. *Rural Sociol* 68 (2), 153–181.
- Ross, M., 2012. *The Oil curse: How petroleum Wealth Shapes the Development of Nations*. Princeton University Press, Princeton.
- Severiano, B.M., Northey, S.A., Giurco, D., 2024. Drivers and barriers of voluntary sustainability initiatives in mining raw materials for batteries. *Extract. Industr. Soc.* 20, 101552.
- Smith, M.N., 2025. Mining global decarbonisation for development in Africa? Regional geopolitics and the question of South Africa in Africa. *Extract. Industr. Soc.* 22, 101624.
- Svampa, M., 2019. *Neo-extractivism in Latin America: Socio-environmental conflicts, the Territorial Turn and Political Narratives*. Cambridge University Press, Cambridge.
- United Nations, 2025. *UN Guidance For Action On Critical Energy Transition Minerals*. United Nations, Geneva.
- van der Ven, H., Sun, Y., Cashore, B., 2021. Sustainable commodity governance and the global south. *Ecolog. Econ.* 186, 107062.
- VanDeveer, S.D., Park, H., Sun, Y., Betsill, M.M., 2023. Extractive industries and mineral resources: turbulence all around. In: Dauvergne, P., Shipton, L. (Eds.), *Global Environmental Politics in a Turbulent Era*. Edward Elgar Publishing, pp. 75–89.
- Warburton, E., 2023. *Resource Nationalism in Indonesia: Booms, Big business, and the State*. Cornell University Press, New York.
- Warburton, E., 2024. Nationalist enclaves: industrialising the critical mineral boom in Indonesia. *Extract. Industr. Soc.* 20, 101564.
- Wang, Y., Shen, W., Zhou, Z., Musasike, T., Chidhawi, T., 2024. Advancing mineral-energy nexus for development (MEND) in Africa: a case study of Chinese lithium mining project in Zimbabwe. *Extract. Industr. Soc.* 21, 101524.
- Zhou, J., Manberger, A., 2024. *Critical Minerals and Great Power competition: an Overview*. Stockholm International Peace Research Institute, Stockholm.