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A Critical Geopolitics Analysis of “Critical Minerals” Discourses from Formal Geopolitics, Indigenous and Civil Society Actors

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ABSTRACT

Demand for “critical minerals” (CM) for energy transitions is propelling significant expansion of mining and an evolving formal geopolitics (e.g. inter-state rivalry, diplomacy, friendshoring) for CM supply security. Applying a critical geopolitics methodology of discourse analysis, this article investigates associated discourses, and in parallel, those of an Indigenous community network and relevant non-governmental organisations. This aims at identifying whether formal geopolitics recognises Indigenous communities’ “Right to Say No” to CM projects, driven by relational ontologies. Discourse themes identified indicate that formal geopolitics does not reconcile a “need” for prolific CM mining with Indigenous onto-epistemologies. Therefore, two “steps” for strengthening recognition of Indigenous perspectives (including catalysing ontological shifts among CM stakeholders and prioritising CM demand reduction), and a new “geos-politics” of CM, are discussed.

Introduction

The International Energy Agency (IEA) (2021, 9) estimates that by 2040, the overall demand for “critical minerals” (e.g. lithium, cobalt, graphite, and rare earth elements) required for low-carbon energy technologies, will increase by a factor of six relative to 2020. Surging demand requires significant expansion of existing and new mines (IEA 2022, 48). As is well understood, critical mineral (CM) production, however, can cause high socio-environmental costs to local communities and ecosystems, and the majority (69%) of the world’s energy-transition mineral projects are located either on or near Indigenous Peoples’ (or peasant) lands (Owen et al. 2022).

Amid this prolific “green extractivism”, proceeding in the global urgency of materialising energy transitions, many Indigenous communities perceive

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their role as designated “green sacrifice zones” (DeBoom 2021). This highlights the need to consider the role of differing, plural worldviews in many conflicts around extractivism (Bainton, Ballard, and Gillespie 2012; Brereton, Flynn, and Kemp 2024; Escobar 2020; Velasco-Herrejón, Bauwens, and Friant 2022). This article thus foregrounds the relational, eco-centric onto-epistemologies held by many Indigenous communities and these communities’ “Right to Say No” to CM projects to protect their land, livelihoods and ways of being and knowing (Auer et al. 2025, 12; Riofrancos et al. 2023).

Briefly, relational, eco-centric onto-epistemologies perceive the world relationally, where humans as custodians are in balanced relation with Earth, the “more-than-human” (e.g. creatures, plants) and indeed, all of existence. This informs ways of knowing, including participation in research, where, for example, place or “Country” is a knowledge holder, with agency, and a research partner (Allard-Tremblay 2025; Johnston, McGregor, and Restoule 2018; Yunkaporta 2019). This research also respects that many communities will welcome the socio-economic benefits offered alongside CM projects. It does not aim to generalise communities, including Indigenous Peoples, as anti-extractivist or counter-modern development actors against international economic integration (Gibson 2013; Tym 2023).

This is a timely focus. Since 2020, a proliferation of diplomatic partnerships among Global North states has aimed at enhancing CM supply and supply-chain diversification. Primarily, this has responded to the geographical concentration of extraction and particularly, processing of many CM in a handful of countries, most notably China (IEA 2025, 7–8). The Global North’s response through “friendshoring” however, reflects the formal geopolitical imaginaries of key governments, policymakers and scholars regarding the expansion of CM production, within a rivalrous, competitive world of resource (in)security. The nature of this powerful collaborative focus on CM supply will influence impacts on local, Indigenous communities worldwide.

This article’s research questions therefore ask: to what extent does the formal geopolitics of CM recognise and reconcile Indigenous relational, eco-centric onto-epistemologies with a universalised “need” for “critical minerals” for energy transitions. Second, what geopolitical imaginaries and practices (Dodds, Woon, and Xu 2022) are invoked (if at all) to reconcile the two perspectives, to avoid impasses between Indigenous communities and mineral project proponents. To respond to the research questions, discourse analysis (a major methodology utilised in the discipline of critical geopolitics; Müller 2011, 2013) is undertaken of an evolving formal geopolitics around CM production, demonstrated within a set of key documents by formal geopolitics actors (e.g. states and international organisations). To enable a juxtaposition of discourses and perspectives, analysis is also undertaken of CM-related documents by an Indigenous community network, and supporting non-

governmental organisations (NGOs). Briefly, imaginaries represent world-views or visions that, for example, drive state policy; and practices represent proposed policy strategies for implementing goals within the parameters of held imaginaries.

Conceptually, the article explores theories related to CM production for energy transitions from both formal and critical geopolitics (Western geopolitics), followed by exemplary Indigenous geopolitics and concepts of minerals. To help bridge these contrasting onto-epistemologies and perceptions of geopolitics, the article turns to interdisciplinary concepts on geopolitics and minerals, nature, and the geosphere – the “geos”. Further, it points to movements that are merging Western thought and Indigenous ontologies (e.g. “Rights of Nature”) that have the capacity to impact mining. This assists a conceptual “journey” from Western to Indigenous ontological perspectives on minerals/rocks/geos. It also points to a deprioritisation of minerals and the geosphere in an effort to address climate change, which has contributed to the elevation of green extractivism (Palsson and Swanson 2016). Underpinning this, the article points to the concept of the pluriverse. This concept recognises radical differences in views that are not commensurable within one single (Western) worldview (Escobar 2018, 2020).

The article first reviews relevant literature, and then outlines the discourse analysis methodology. This is followed by the results, which are organised to illuminate the key imaginaries and practices (together, the themes) identified in different actors’ discourses on CM. In the discussion section, these themes are examined in order to respond to the article’s research questions. Two proposed “steps” to strengthen recognition of Indigenous onto-epistemologies, and a proposed new approach of “geos-politics” for CM, are then discussed. The article concludes by recognising key challenges to the proposed steps, and outlines research limitations and future research.

This article may inform the work of CM researchers and civil society advocacy, and potentially, policymakers and business engagement of communities for CM projects. In terms of author positionality/place, briefly, I was born near the Midlands’ River Stour in England, and as an adult, have lived primarily in (what is known as) Australia.

Literature Review: From Formal and Critical Geopolitics to the “Geos” in a Pluriverse

The world of formal geopolitics is infused by a history of realist geopolitics built on conceptions of space and land as territory for invasion, nature to be subjugated and natural resources as objects to extract. Historically, this has enabled state and corporate hyper-competition and geopolitical scrambling for resources – including the contemporary expansion of “critical minerals” production (Miller 2025). Geopolitical writings on the low-carbon energy

transition have increasingly perceived CM as a flare-point for conflict (Lederer 2022; Scholten 2018; Vakulchuk, Overland, and Scholten 2020). Debates hypothesise the extent to which the energy transition will catalyse more or less intra- or inter-state conflict, considering exponential material needs for new energy installations, transport, defence and data-centre requirements. While IRENA (2019) posits that the transformation will diminish geopolitical tensions over time, with more geographically dispersed low-carbon energy sources, a messy mid-transition is foreseen, including around conflict over CM, with winners and losers among states (Blondeel et al. 2021; Bordoff and O’Sullivan 2023; Bradshaw 2026; Hache et al. 2023; Scholten 2023). Shifting global production networks for low-carbon technologies (e.g. batteries, electric vehicles (EVs)) and geographically concentrated CM supply chains have led to diplomatic partnerships between Global North countries to diversify supply chains (Bridge and Faigen 2022). This CM diplomacy (Vivoda 2023) prioritises CM supply security; inherited from energy diplomacy, with its history of petropolitics and fossil fuel supply security. It is predominantly conceived as governmental foreign activities for national (energy) security, promoting business opportunities (Griffiths 2019).

Turning to the field of critical geopolitics, a major methodology offered is discourse analysis, centring on discourse, narrative and the social construction of a world; critiquing realist geopolitics (Dodds, Kuus, and Sharp 2013; Koopman et al. 2021; O’Tuathail 1996). Discourses matter; formal geopolitics discourses (often realist/state-based) are hegemonic. Discourse analysis of official texts reveals the geopolitical imaginaries underpinning political decision-making and resulting practices (such as policy strategy); and how problems are framed and responded to (Dodds, Woon, and Xu 2022; Müller 2011; 2013, 51). There are few scholarly analyses of discourses around CM. An example is Gonzalez’ (2023) portrayal of news media coverage of the Ring of Fire region in Canada. This illustrates how discursive themes on CM have (re)produced a technological, market-led imaginary for green transitions. The region is valued from economic and geopolitical perspectives, while Indigenous opposition is framed as temporary, with ultimate partnership presumed (other examples: Dahlqvist 2021; Haikola and Anshelm 2016; Wilhelmsson 2023).

Critical geopolitics also enables the “geopolitical gaze” to turn to resistant Indigenous geopolitics. Approaches have explored the impacts of capitalism, resource extraction, and Indigenous claims for recognition of their rights to land, sovereignty and self-determination – challenging the Westphalian state system and state economic hegemony: a ‘geopolitical challenge ‘from below’ (Gibson 2013, 423; Bauder and Mueller 2023; Nicol 2017). Further, critical geopolitics attempts to understand the relational, eco-centric onto-epistemologies of many Indigenous communities, including through discourses that illuminate more-than-human perspectives. In Australia, Gibson

(2013, 429) writes, for example, Indigenous geopolitical conceptions are embodied, more-than-human, with epistemologies connecting ‘moral responsibility with territory, affirming systems of kinship and law. Aboriginal geopolitical orientations are towards ancient origins and ceremonial reproduction of responsibilities to country . . . written in the landscape’.

As early as the 1990s, the “more-than-human” turn was challenging Western dualism and the nature-human separation. This forged an openness to geopolitical perspectives informed by relational ways of being and knowing that encircle rocks, minerals, animals, plants, landscapes, traditional knowledge-keepers, ancestors, invisible beings, spirits, ceremonies – all are knowledge holders (see Sundberg 2014; Theriault 2017; Theriault et al. 2020). For example, considering minerals and rocks, Indigenous Australian academic, Yunkaporta (2019, 25, 29) describes a place that ‘is alive. Every rock is animate and sentient – but in our worldview this is true of all rocks’. Consider that, ‘in this way of knowing, there is no difference between you, a stone, a tree or a traffic light’. To discern knowledge, ‘[y]ou have to show patience and respect, come in from the side, sit awhile and wait to be invited in’. In Ecuador, a community/Indigenous leader explains: ‘Wealth for us is the harmonious coexistence of all the elements that are part of Mother Nature . . . Respect for mineral deposit sites because they also fulfil a function. They are energy. In these beings, we meditate. They are our spiritual centres’ (Richter 2025, 5). This reveals a wider conception and “value” of minerals/rocks than merely “resources” and inputs into technologies.

However, Povinelli (2016) reveals ‘geontopower’ – power derived from the cultural governance of existence and what is deemed as Life or Nonlife – wielded by ‘late liberalism’, particularly visible in settler-colonial states against Indigenous ontologies, and thus Indigenous existence. For example, Povinelli points to ‘geontologies’ that enable the relegation of mineral/rock formations to Nonlife, that which does not die, or present sentience. This prevents comprehension of (Australian) Indigenous ontologies, including, for example, that rocks are sentient, or may be seen as blood or energy, which is then expressed as sacred land. Geontopower, then, can also be said to underlie formal geopolitics, enabling the exponential appropriation of minerals, including from sacred land, via international mineral supply chains.

Arguably, a consequence of geontopower is the insufficient attention initially given in sustainability approaches to the geosphere (the “geos”), relative to the climate and biosphere (Palsson and Swanson 2016), facilitating green extractivism. Anthropologists Palsson and Swanson (2016) call for interdisciplinary approaches to address the geologic alongside the climatological. They discuss a ‘down-to-earth’ geopolitics (Latour 2018) that is multi-scalar, encompassing geologic (mineral) scales from living bodies, to rock formations, to the planet. They describe ‘geosocialities’; the entanglement of minerals with social and biological processes including living bodies (e.g. salmon, or

humans) and their ecosystems. Seemingly inert, asocial minerals are therefore ‘lively’, possessing agency that shapes environments and (non)human action¹ (Bennett 2010). This is agency not as intentionality, but as relational (the interconnectedness of all things), and thus the capacity to affect and be affected (Palsson and Swanson 2016). When ‘lively’ matter exceeds comprehension, political theorist Bennett (2010) proposes intellectual humility and anthropomorphism to generate human empathy to reveal agential vitality. ‘Geosocialities’ require a geopolitics that recognises all beings are geosocial; to generate more politico-ethical engagement on the geosphere. In this multi-scalar geopolitics, the local remains important as ‘geologic relations *matter differently* to particular entities in particular locales’. Instead of geopolitical power arising from natural “resources”, this matter is a political force itself, moving through the Earth system via entangled relations with living beings and the biosphere. This demands a geopolitics that recognises both human and Earth active agency, with the latter “managing” multi-scalar geosocial realities (Palsson and Swanson 2016, 155).

More broadly, Latour’s (2021; 2018) ‘down-to-Earth’ geopolitics incorporates interdisciplinary thinking on planetary boundaries, Earth’s self-regulation authority, and earth system science – the study of the planet’s interacting components, feedback loops and human impacts on the Earth system (Dalby 2025; Rockström et al. 2009). Latour finds there exists ‘an authority that no one ever names precisely ... “Gaïa”, namely the self-regulation of and by the Earth’s living organisms’ (Latour 2021, 3). This reflects an emerging scholarship on the “geopolitics of nature”. Such scholarship seeks to identify the role of nature in geopolitics and in turn, to question the nature of geopolitics’ foundational concepts (Alex and de France 2021; Latour 2017, 2018, 2021). The ecological crisis forces a questioning of flat, inert, “chessboard-like” conceptualisations of space and territory in the formal geopolitics of occupation, resource capture and states’ zero-sum games. A geopolitics of nature must encompass the ‘entities that react to our actions’ such as rivers, the atmosphere (Latour 2021, ii) and mineral geosocialities. The flat “chessboard” must be reconceived three-dimensionally, with relations between different collectives of life forms (and so-called non-life forms like rocks/mineral formations) that occupy niches in ecological space (Descola 2021). As earth system science demands, we must ‘take the biosphere as a totality, as an interconnected system’ (Dalby 2025, 209), while acknowledging that the geosphere and geosocialities form part of the whole. As Latour (2021, vi) sums up, realists point to the ongoing demands of chessboard geopolitics ‘but insofar as the chessboard is impacted by the new climate regime [or Gaïa], we cannot be certain it serves much of a purpose’.

So now it is ‘possible to see nature not only as an object, background, resource ... but as an agent, actor, or subject of politics’ and law (Alex and de France 2021, ii; Descola 2021). Exemplifying this, is the increasingly

influential Rights of Nature movement that intersects Indigenous ontologies with Western law and ethics, led by Indigenous communities and non-Indigenous organisations across the world. Arising from Ecuador, in 2008 the country's constitution included legal rights for Nature (Pachamama) that recognised the inherent rights of ecosystems to exist, persist, and regenerate (Constitute 2008). Since then, across countries, rights and legal personality have been given to mountains, landscapes, rivers and forests; protecting them. It has potential to be applied to rock and mineral formations, to CM and surrounding landscapes, and the proven ability to prevent mining. In 2021, the framework was invoked in Ecuador to halt mining activities in the Los Cedros cloud forest (R2HE 2021). Except in rare pieces (Rao 2025), CM geopolitics scholarship has not considered the geopolitical implications of this movement. This does nonetheless, demonstrate the rising influence of Indigenous Peoples and eco-centric ontologies – with their ability to gain non-Indigenous (legal) recognition of non-human “beings” that can encompass the “geos” and potentially, CM deposits. At the COP30 Summit in November 2025, the Global Alliance for the Rights of Nature held dialogues to move towards applying the Rights of Nature legal framework to green extractivism and specifically, CM (GARN 2025).

A way to skirt universal (Western) concepts of existence, development, life/nonlife, the “geos” and minerals is to point to the concept of the pluriverse. Pluriversality opens space for possibilities outside the ‘One-World World’ of the liberal, capitalist and patriarchal worldview from which stems the ontological occupation of Indigenous communities. Extractivism frequently stirs ‘ontological struggles’. Communities aspire to maintain ‘a world where many worlds fit’ (Escobar 2018; 2020, 68, 72; Blaser and de la Cadena 2018) and resist ‘the ontological erasure of their worlds, demanding to be consulted and participate on their own terms’ (Inoue et al. 2023, 1). Resistance often defends their relational ontologies where ‘the defense of territory, life, and the commons is one and the same’ (Escobar 2020, 73).

Methodology

To respond to the research questions (see [Introduction](#)), the methodology of discourse analysis is applied. This empirical analysis includes documents of key representative actors promulgating formal geopolitics. This encompasses documents of the Minerals Security Partnership (MSP), including those of one of its member states, Australia. The MSP is a major early example of the CM-focused diplomatic partnerships established. Launched in 2022, the MSP evolved to include 14 partner states and the European Union (EU). Australia, a settler-colonial state with a prominent Indigenous/First Nations population, has published its Critical Minerals Strategy (Australian Government 2023) and is set to become a major exporter of multiple CM.

Reports from the International Energy Agency and IRENA (International Renewable Energy Agency) are also analysed, both being influential in national and international policy on CM. This enables this article's primary goal of investigating a set of key, high-level documents that constitute an evolving formal geopolitics around CM.

A parallel analysis is conducted of CM-related documents by an Indigenous community network, and NGOs supporting that network and/or other Indigenous communities/networks – henceforth together termed “civil society”. This identifies civil society discourses; enabling the juxtaposition of views to formal geopolitics, where identified. The Indigenous community network, Yes to Life, No to Mining (YLNM), is ‘a global solidarity network of and for Indigenous Peoples, impacted communities, local organisations, and networks who are standing up for their Right to Say No to Mining and to advance life sustaining and post-extractive futures’ (YLNM 2026). NGO actors were chosen with consideration to their CM research being supported by YLNM (or other Indigenous communities/networks), and their support for Indigenous communities’ perspectives and Right to Say No to mining projects. All civil society actors’ inclusion was also based on the accessibility of their CM-focused documents (while recognising the limitation of being restricted to English language documents) and although in the end, still limited, the actors’ global geographical dispersion. Actors include: Rainforest Information Centre, Aid/Watch and Melbourne Rainforest Action Group, Australia;² London Mining Network (LMN); War on Want;³ and Friends of the Earth (FoE) Scotland.⁴ Documents include reports, webpages, speeches, statements and communiqués. The documents were chosen based on: being the most recent (as of 11 January 2024) of an actor; and core policy publications/communications of an actor regarding CM production, Indigenous and local communities and potentially, related international (diplomacy) action. The MSP provided no single report, so its website’s embedded communications, as of June 2024, were analysed (US Department of State 2024).

It is recognised that non-Indigenous NGOs often act as interlocutors for Indigenous Peoples, whether invited or not, and that analysing documents of NGOs is less desirable than directly speaking with, or reading documents only prepared by, Indigenous communities. This project, applying desk-based research, sought Indigenous networks’ documents on critical minerals, but due to English-language constraints, YLNM proved to be the primary network. Other CM-related documents by Indigenous communities/networks were sought, but were limited in number, and not available in English language. Direct interviews with Indigenous communities were not possible in this project, due to time and financial constraints. It is understood that direct engagement with both Indigenous Peoples and formal geopolitics actors should comprise follow-on research to this project. The primary aim of this article is to

identify recognition of Indigenous perspectives in formal geopolitics discourses. YLNM and NGO documents help reveal alternative discourses to those of formal geopolitics. (For a concise list of all actors' documents analysed, see Supplementary Material 1).

Utilising Nvivo software, the qualitative discourse analysis initially applied a word-frequency assessment, followed by an inductive, emergent coding procedure applied across all documents (Jackson and Bazeley 2019). Coding was applied while considering this article's research questions (relating to recognition of, and reconciling, formal geopolitics and Indigenous perspectives) within a critical geopolitics conceptual framework addressing critical minerals, geopolitics and diplomacy. The analysis searched for themes (imaginaries and proposed practices) related to local and Indigenous communities, ontologies, diplomacy, geopolitics and CM production. Taking an initial broad view of potential discursive themes, the first stage of analysis provided 31 nodes. A second stage analysis assessed this coding for major emerging themes, and theme hierarchies, shifting some coding to sub-themes. The themes were again refined while analysing them according to their level of importance (e.g. the regularity of discussion of a theme by an actor, and by which, and how many, actors), and their potential to be a major issue of contention or a pathway forward by or between actors. Refinement finally identified six themes (two imaginaries and four practices) and 10 sub-themes. For a further check, text-search queries were applied to ensure no sub-theme was missed in any actor's documents. The 10 sub-themes were summarised to reflect, where relevant, if not all actors', then at least exemplary formal geopolitics and civil-society discourses.

Results

Table 1 lists the emergent imaginaries, practices and their sub-themes. Discussion of the themes follows Table 1.

Table 1. Imaginaries and practices.

Themes: Imaginaries	Sub-themes
1. Geopolitics	1a. Geopolitical competition is primary 1b. Focus on supply security
2. Extractivism	2a. Green extractivism 2b. Sustainable development, justice and equality
Themes: Practices	Sub-themes
3. Critical Minerals Diplomacy	3a. General CM diplomacy 3b. Attracting producer countries
4. Local and Indigenous Community Impacts	4a. Community impact processes 4b. Economic benefits for communities and workers
5. ESG Standards	5. Promoting high ESG (Environmental, Social and Governance) standards
6. Circular Economy and CM Demand Reduction	6. Circular economy and CM demand reduction

Imaginary 1. Geopolitics

Imaginary 1. Geopolitics, incorporates imaginary 1a. “Geopolitical competition is primary”. This illustrates how formal actors frame CM discourses around hyper-geopolitical competition (mostly with China, but also Russia since the invasion of Ukraine). IRENA (2023, 67) sets the scene, warning that pursuing resources ‘has been a major motive for states seeking territorial expansion’. IRENA prioritises six geopolitical risks to material supply: external shocks (e.g. war), resource nationalism, export restrictions and bans, mineral cartels, political instability, and market manipulation. The Minerals Security Partnership’s (MSP) documents do not explicitly raise conflictual geopolitics. MSP member, Australia, does however, posing its CM industry is vital to its regional energy security, defence and economic security (Australian Government 2023).

Alternatively, Yes to Life, No to Mining (2021) demand that frontline communities have the Right to Say No to projects, decrying how they ‘bear the effects of a mine into the future for the sake of the global community’. Governments and companies ‘are racing to stockpile minerals . . . creating an avoidable competition for resources which is exacerbating demand for and injustices around . . . minerals’ (Simms, Whitmore, and Pratt 2023, 6).

Imaginary 1b. “Focus on supply security”, reflects the prioritisation of supply security, and addressing complex challenges such as long lead times for new mining sites, and mineral-rich countries with poor governance (IRENA 2023; IEA 2023). The IEA (2023) strongly positions the need for responsible supply chains as about avoiding disruptions, which then risk supply security. Australia, primarily exporting its substantial CM, positions them as ‘fundamental to [supplying] the global transition to Net Zero emissions’ (Australian Government 2023, 6). Civil society actors raise questions that seek to clarify goals, and supply security for whom/what? For example, “critical minerals” is a ‘politically charged term’ often implying needs for the energy transition but in reality reflects other sectors’ needs such as arms manufacture (Simms, Whitmore, and Pratt 2023, 12; Hitchcock Auciello 2019).

Imaginary 2: Extractivism

This imaginary incorporates imaginary 2a. “Green extractivism”. Formal actors do not question prolific extractivism for the energy transition. They promote substantial increases in exploration, mining and geological surveys as much of Australia (Australian Government 2023) and the Earth, ‘predominantly in developing countries, remain[s] unexplored’ (IRENA 2023, 41; IEA 2023).

YLNM (2021) however, demand attention to the multitude of values, ways of life, ecosystems and communities. Each has the right to decide their own future and livelihoods; not to be sacrificed to Global North consumerism. This is essential for a just energy transformation. A ‘profit-driven extractive mindset’, tied to limitless growth and consumption, has failed to internalise externalities and created the climate crisis. Solutions generated from the same mindset are ‘false solutions’ (YLNM 2021). The extractivist mindset depends on epistemicide; requiring us to overcome ‘a singular, universal understanding of wellbeing and how we define and value ways of knowing’ (Hitchcock Auciello 2019, 23). Extractivism is purely the ‘high-intensity, export-oriented extraction of common ecological goods rooted in colonialism and the notion that humans are separate from, and superior to, the rest of the living world’ (Hitchcock Auciello 2019, 7). In the end, ‘green extractivism’ empowers a corporate-driven transition agenda, rather than ‘the safest and most just energy transition’, despite needing ‘carefully planned, low-carbon and non-resource-intensive solutions’ (Whitmore 2021, 6, 12).

Imaginary 2b. “Sustainable development, justice and equality”, reflects visions favoured by formal actors, that accompany extractivism. IRENA (2023, 73, 107) posits ‘[i]nternational co-operation is essential’; where an ‘inclusive and mutually beneficial approach’ requires ‘importing states to support sustainable development and mov[e] beyond extractive patterns’. IRENA (2023) and IEA (2023) acknowledge a history of socio-environmental failures and unsustainable economic growth. CM production is an opportunity to rewrite the legacy, by applying ‘the principles of sustainability, human rights and social justice’ (IRENA 2023, 75). The MSP (2023) also promotes sustainable development, including workers and human rights, environmental protection, financial transparency and good governance. It will incentivise companies to apply these standards. Western supply chains can then be differentiated by their strengths in sustainable development and ESG⁵ (Environment, Social and Governance) standards (see below), to create a more level playing field for Western “responsible” firms (CSIS 2023; IRENA 2023; IEA 2023).

In contrast, civil society actors note the ‘orthodox framework of sustainable development’ is ‘green growth’ - promoted as driving economic growth sustainably. However, absolute decoupling of economic growth from virgin materials use is not likely or possible; necessitating continued extraction, as degrowth theory proposes (e.g. see Kallis et al. 2018; Whitmore 2021, 40; YLNM 2021). Further, mining affected communities must be central to debates ‘of an energy transition rooted in justice’ (Hitchcock Auciello 2019, 6). YLNM (2021) urge actors to ‘[a]ddress climate change from a holistic and environmental justice perspective’; helping to balance justice agendas which omit mining injustices (such as a “just transition” advocates for “green jobs” for ex-fossil fuel industry workers).

Practice 3. Critical Minerals Diplomacy

This first practice includes 3a. “General CM diplomacy”. MSP partner countries and international organisations, IRENA and IEA, support diplomacy aimed at diversifying CM supply chains. Through partnerships, trusted allies are encouraged to streamline planning and permitting procedures, and public funding for CM investments (IRENA 2023). Friendshoring through MSP membership assists countries to secure supply chains, economic resilience, and de-risking (White House 2023). The challenge nonetheless, is to get companies involved (CSIS 2023). Australia’s CM Strategy highlights the country’s bilateral partnerships and ‘leadership role in multilateral forums’ on CM ‘investment, R&D collaboration and ESG [and technical] standards’ (Australian Government 2023, 25).

Civil society actors are distrustful of such state diplomacy, arguing it is driven by unquestioned “green growth” policies and defence considerations (Burgess and Downes 2022). Their “diplomacy” prioritises international solidarity between Indigenous and civil society networks/organisations and affected communities (Whitmore 2021). In most documents, actors voice solidarity for each other, such as endorsing YLNM’s (2021) lithium communiqué (Burgess and Downes 2021b). Building solidarity between Indigenous and other movements (e.g. buen vivir, degrowth, just transition) is vital (Whitmore 2021).

Through practice 3b. “Attracting producer countries”, the MSP will focus diplomacy on attracting potential CM producing countries to partner on projects, and in tandem, diminish China’s dominance. Former MSP lead and US Under Secretary of State, Jose W. Fernandez (CSIS 2023) infers that producing countries are responding with: ‘It’s great to be able to tell us that you are better than others. But you’ve got to walk the talk and you need alternatives’. ESG standards and local benefits are thus the MSP’s ‘calling card’. The MSP and IRENA endorse ‘the right of every country to benefit from its own mineral resources, including seeking to move up the value chain’ into higher value segments such as smelting, refining or battery cell assembly (MSP 2023; CSIS 2023; IRENA 2023).

YLNM (2021) opposes the supposition that all communities desire inclusion in such value chains. The costs (externalities) of CM production ‘are directly passed on to us and other communities through the loss of our lands, water, and livelihoods’. These costs are not ‘considered in the shiny “green” narratives of the mining industry . . . [or] the glossy “clean” energy future of electric car advertisements’. Further, while failing on promises of meaningful community engagement, mining companies are ‘aggressively occupying the political space, often with the complicity of elected officials and are supported by international development funds to promote their so called “green mining” agenda’ (YLNM 2021).

Practice 4. Local and Indigenous Community Impacts

Promoting practice 4a. “Community impact processes”, formal geopolitics actors discuss proposed processes for responding to community concerns. IRENA calls for equitable, early and meaningful engagement of communities across the project life-cycle. Similarly, through its five Levers for Policy Action,⁶ the IEA recommends policymakers guide on requirements across jurisdictions, including regarding communities’ right to Free, Prior and Informed Consent (FPIC). FPIC ‘is legally required in some contexts, and even where it is not, it should be used as best practice for engagement with Indigenous Peoples’ (IEA 2023, 80). Many international standards only set FPIC as an aspiration however, and few companies adopt strong FPIC policies, only “seeking” consent, and failing to commit to abiding by a community’s withholding of consent (IEA 2023, 84, citing Oxfam).

FPIC is not mentioned in any MSP documents analysed. Instead, the MSP’s (2023) Principles suggest projects should ‘[a]ccess and acquire land through consultative and participatory processes that result in broad-based consent of affected communities’ (MSP 2023; CSIS 2023). Australia’s CM Strategy plans for more efficient, faster planning approvals and stakeholder engagement in mining – while maintaining rigorous standards. Australian First Nations’ voices and knowledge are posed as crucial to the sustainability of the CM sector. However, the government will need to identify best-practice engagement between companies and First Nations communities. This ‘involves engaging early on free, prior and informed consent, including under regulatory frameworks such as the Native Title Act and Aboriginal Land Right (Northern Territory) Act 1976’ (Australian Government 2023, 31).

In contrast, Australian civil society actors (Burgess and Downes 2021a, 2) present a South Australian case study (‘Lake Torrens Copper and Cultural Heritage’) which argues that a Supreme Court ruling in 2016 stripped the land title rights held since 1993 from the Kokatha, Barngarla and Adnyamathanha/Kuyani peoples to enable mining in the region. The authors (2021b, 1) suggest that ‘Native Title law does not allow First Nations people to say no to mining or exploration’. Recommendations are therefore proposed, including a call to support communities in their Right to Say No, self-determination, collective rights, and to self-govern. Internationally, YLNM’s Principles Towards a Just Transformation, call for legal recognition that front-line ‘communities have the Right to Say No’ after a ‘fully informed independent assessment’ that enables communities to evaluate a proposed mine (YLNM 2021).

Practice 4b. “Economic benefits for communities and workers”, demonstrates the “carrot” for persuading communities is singularly perceived in providing industrial, socio-economic development (MSP 2023; Australian Government 2023). For example, benefits such as investment in local infrastructure, jobs, and co-equity ownership, facilitate energy transitions that are

‘people-centred’ (IEA 2023, 7–12). Notably, the Australian Strategy cites a ‘First Nations – led Peak Body’ that argues, *if* First Nations are given a ‘central role’ in Australia’s renewable energy transition, this goes beyond ‘social licence issues’ for mining, and presents an opportunity to design an economic system that is more ‘fair and just’ (Australian Government 2023, 31). YLNM (2021) paint a different picture of the lived experience of broken corporate promises. They ask that ‘development solutions’ not be forced upon them; to let communities ‘be free to choose how to lead their lives in peace’.

Practice 5. Environmental, Social and Governance (ESG) Standards

Practice 5. “Promoting high ESG standards”, is a policy tactic across formal actors to encourage responsible supply chains (MSP 2023; CSIS 2023; IRENA 2023). It is acknowledged that ESG standards such as for emissions reduction or biodiversity protection in mining have not created significant results (IEA 2023; CSIS 2023), and the key challenge for the MSP, is to bring companies on board (CSIS 2023). Notably, building responsible supply chains with high ESG standards, and responding to community concerns, is directly linked by formal actors to security of supply – and crucially, national security (Stark 2023 on the MSP; IEA 2023). For the MSP, supply-chain security is a major reason for involving communities in the decision-making process and promoting ESG standards. The latter are foundational to a corporate social licence to operate, and ‘good governance and transparency protect the national security interests of countries involved’ (MSP 2023). In Australia, ‘genuine engagement with First Nations communities is essential to Australia’s social and economic success’. Being ‘a world leader in ESG performance’ increases market access and investment in its CM; crucial for Australia’s national and economic security (Australian Government 2023, 28, 32).

Alternatively, civil society actors argue there is an emerging trend for ‘technical and industry-led ESG “solutions”’, to appear to mitigate risks and develop credentials for green extractivism that serve ‘business as usual’ interests (Burgess and Downes 2022, 5). Instead, YLNM (2021) and others call for *legally* binding treaties on business and human rights and more transparency (Hitchcock Auciello 2019).

Practice 6. Circular Economy and CM Demand Reduction

Formal geopolitics actors strongly promote the development of a circular economy for CM, particularly ‘recycling/reuse’ - one of four major challenges highlighted by the MSP (US Department of State 2024). Recycling projects are sought ‘both within and beyond MSP partners’ borders’ (MSP 2023). Circular economy efforts can mitigate geopolitical risks, contributing to long-term

material security, but a substantial stock of secondary supply materials is not expected until the mid-2030s (IRENA 2023).

Civil society actors are far more vocal in questioning discourses around demand levels. They advocate the circular economy, but also goals to limit mining, including through societal behaviour change to lower CM demand. This requires ‘disaggregat[ing] projected demand further and critically evaluat[ing] which . . . end-uses most contributes to meeting the demands of energy justice and access’ (Hitchcock Auciello 2019, 12). War on Want (Whitmore 2021; YLNM 2021) suggest the creation of a ‘circular society’ (Friant, Vermeulen, and Salomone 2020). Unlike techno-economic visions of a circular economy that regularly prioritise recycling over preventative strategies such as in the design, manufacturing and sales stages, a circular society requires a socio-economic shift to lifestyle transformation. YLNM (2021) underline ‘it is unjust for one group of people unwilling to change their lifestyle to impose the hardships of aggressive extraction on another so that they can maintain their resource intensive way of life’. IRENA and the IEA elaborate little on societal demand reduction. IRENA (2023, 110) briefly suggests attention to energy efficiency and conservation, EV battery chemistry optimisation and ‘behavioural change’. The MSP and Australia’s CM Strategy are silent on societal behaviour change.

Discussion

In terms of the article’s research questions, the results demonstrate that formal geopolitics imaginaries and practices surrounding CM *recognise* Indigenous geopolitics, but only at a superficial level that does not truly consider plural ontological perspectives. A universalised conception of competitive state geopolitics and “resource” appropriation (imaginary 1a.) aimed at national security, overrides alternative perspectives. Formal actors recognise Indigenous geopolitics primarily through the prism of protecting supply security (imaginary 1b.).

This is then underpinned by *reconciling* the universalised need for critical minerals and green extractivism (imaginary 2a.; Gudynas 2013), with Indigenous demands through the legal and normative practices of community impact processes. This includes community engagement and FPIC (where states and companies adhere to FPIC, yet even then it is more aspirational than fully committed to, see above) (practice 4a.). Practices also include the promise of economic benefits for communities and workers (practice 4b.), and application of high ESG standards in supply chains (practice 5.). Global North countries’ diplomacy, demonstrated via the MSP, is then able to secure supply while voicing support for supply chains applying high ESG standards, sustainable development, and help for developing countries to rise up the value chain (practices 3a., 3b.). This, then protects supply and thus, national security

(practice 5.). This direct link between countries' national security interests, and ensuring the application of ESG standards and sustainable development, does suggest more attention being applied to generate ethical supply chains. It depends however, on companies actively applying these standards, in a highly complex, volatile and competitive CM industry, dominated by China (practices 3a., 5.; Carr-Wilson, Pattanayak, and Weinthal 2024).

This reconciling relies on the imaginary (2b.) of sustainable development, justice and equality. Civil society actors however, highlight the limits of the liberal, sustainable "inclusive development" model, based on distributing benefits and minimising risks. Wealthy extractivist states, with their imaginary of sustainable development, ignore ontological pluralism, promoting green growth and industrial development and failing to question exponential growth in extractivism. They ignore formal geopolitics' historical abstraction of geopolitics and development from wider and uneven global social and power relations between states (and between states/governments and their communities) in a capitalist global economy (Newell 2026, 98). The above results demonstrate there is no recognition of civil society calls for moves towards a plural, gradually post-extractivist world (Gudynas 2013). This is despite myriad examples of regenerative alternative economies to mining (e.g. communal agroecological methods and direct democracy) that avoid "sacrifice zones" and support the Right to Say No (YLN 2020). Such economies exemplify well-living, care and resistance to the ontological occupation of capitalist modernity; enabling a delinking from commodity chains where possible (Kaul et al. 2022).

In terms of "justice", Dunlap (2023) exemplifies arguments that point to universalised Western debates on energy justice failing to acknowledge the onto-epistemological importance of place, and entangled relations between land, humans and the non-human; thus accepting (neo-colonial) zones of sacrifice. Zhou and Brown (2024), specifically researching the CM sector, alert to the exclusionary practices of industry which enable 'discriminatory' epistemic injustice, whereby Indigenous groups' knowledge is *undervalued or disregarded*; and 'distributive' epistemic injustice which arises with unequal access to and distribution of knowledge. This affects who is invited to speak, be heard and set agendas (Sultana 2022), necessitating more 'participatory spaces for dialogue, decision-making, and knowledge sharing' across *all* CM stakeholders (Zhou and Brown 2024, 6).

Related to this, is a core finding in the results that no formal geopolitics documents raise ontological difference, or include Indigenous voices, knowledge, imaginaries and proposed practices. This reproduces a blindness to relational, eco-centric Indigenous perspectives, and demonstrates no recognition of plural ways of perceiving place, minerals, rocks or the geos. A path to actively supporting the flow of Indigenous onto-epistemologies across to, and between, CM stakeholders is therefore tentatively proposed below, as Step

One. This also engages concepts identified in the literature review ([Literature Review: From Formal and Critical Geopolitics to the “Geos” In a Pluriverse](#)). Notably, this finding reveals a strength and limitation of the discourse analysis methodology, as applied in this article. The methodology clearly shows how formal geopolitics lacks consideration for plural, Indigenous worldviews, enacts and reproduces a ‘One-World World’ (Escobar 2020, 72) through highly influential documents of actors, and reveals the imaginaries and practices that are instead promoted. Yet, it means the analysis is limited to documents, and does not allow for deeper investigation (e.g. through interviews) of potential individual and institutional engagement of Indigenous onto-epistemologies and their impact on CM policy.

Finally, practice 6. Circular economy and CM demand reduction, offers a potential complementary aspect between formal geopolitics and Indigenous eco-centric geopolitics, amid the predominantly antagonistic abyss between the two perspectives. The actual proposed approach differs across actors. Still, a CM circular economy, and as will be argued, applying principles of societal behaviour change and sufficiency, responds both to the formal geopolitics need for increased mineral security, *and* Indigenous/civil society calls for demand reduction to help limit mining. This is therefore further discussed below, as Step Two.

Step One: Ontological Shifts to Relational, Eco-Centric Perspectives

Currently, CM forums tend to prioritise formal geopolitics discourses, content and speakers. They occasionally (as in Australia) enable symbolic Indigenous representation such as with a cultural demonstration of dance, but Indigenous participants ‘are not supposed to look back, or describe what you see’ (Yunkaporta 2019, 59). Building on Zhou and Brown’s (2024, 6) call for more ‘participatory spaces for dialogue’, and recognising that no formal geopolitics documents analysed raise ontological difference, this article calls for CM forums (including industry and decision-making forums) to explicitly incorporate discussion of the realities of ontological pluralism (Auer et al. 2025, 12).

A potential model for this, that brings together Indigenous and Western onto-epistemologies is demonstrated by the Australian Earth Laws Alliance, and Australian Association for Professional and Applied Ethics. Their 2025 conference, Ethical Futures for People and Planet, in Brisbane, Australia brought together diverse fields of research and practice, from Western philosophy and ethics, to Indigenous methodologies such as Riverstorying (AELA 2025). Sessions sometimes reflected typical Western “scientific” presentations; other times Indigenous (inspired) methodologies. For example, one session focused on CM mining near a river, and presented a methodology that perceived the river as a living being, knowledge-holder and research

partner.⁷ Incorporated into CM forums, this model could support profound learning and small, but consequential, ontological shifts across participants.

This approach demands greater inclusion of Indigenous research methodologies in CM research. Such research should be undertaken by, or *with*, Indigenous researchers, to avoid cultural appropriation, while centring Indigenous research protocols that, for example, facilitate co-creation and benefit-sharing with Indigenous Peoples (for methodologies, see Johnston, McGregor, and Restoule's (2018) five R's of Indigenous research: relationships, respect, relevance, responsibility, and reciprocity; and Smith et al. 2020; Theriault et al. 2020; Wilson 2008). Indigenous research includes scientific methodologies, and also methodologies such as ceremony, 'yarning' or pattern-thinking (Yunkaporta 2019). Methodologies – the processes or the "how" of research – are important. Yunkaporta (2019, 49) warns however, that 'Indigenous Knowledge is not wanted at the level of how, only at the level of what [ie. an outcome], a resource to be plundered rather than a source of knowledge processes'.

If we respect and value the "how" of Indigenous Knowledge and pluriversality, and connect this (where appropriate) with Western conceptualisations of geopolitics that recognise the Earth's interconnected systems, planetary boundaries, and geosocialities (see [Literature Review: From Formal and Critical Geopolitics to the "Geos" In a Pluriverse](#)), this might tentatively be termed a "geos-politics". Geos-politics foregrounds the "geos" alongside the climatological crisis. It recognises climate change *and* potential "geos-change" – caused by unchecked, prolific resource extraction and which may have equally significant impacts as climate shifts. It is not anti-mining, but calls for a conscious effort to limit extraction, and work towards a post-extractivist economy. Finally, the concept prioritises strategies for CM demand reduction. These are discussed next.

Step Two: Critical Mineral Demand Reduction

Building a circular economy for CM is favoured within formal geopolitics, particularly recycling/reuse – a narrow conception of circularity. Recycling does not automatically lead to less raw material use, and is posed as the *last* resort among many other strategies (see the '9Rs' - in order of priority – refuse, rethink, reduce, re-use, repair, refurbish, remanufacture, repurpose, recycle, recover (Plotting et al. 2017; Dominish, Florin, and Wakefield-Rann 2021)). Increasingly called for among scholars and civil society, *and* applied by governments in times of crisis, are strategies that reduce demand through consumer behaviour change.

In the 2026 energy crisis, the IEA and multiple countries have guided populations to reduce energy use such as through reduced car speed or remote working. This signifies that policy for societal behaviour change towards

demand reduction of resources, alongside energy, could gain traction, especially during supply shortages (Hooker and Josephs 2026). Such shortages are likely not far on the horizon. The UK's Critical Minerals Intelligence Centre estimates that global supply of just lithium would need a 32-fold increase by 2030 to meet global demand. Demand from one country, the UK, will require between 15–40% of global lithium production by 2030 - clearly, unsustainable (Petavratzi et al. 2024, vii).

In Europe, energy sufficiency principles were applied to reduce energy demand in the energy crisis following Russia's invasion of Ukraine. Broadly, sufficiency refers to policies and measures that avoid demand for resources and energy, while delivering human well-being for all within planetary boundaries, tailoring demand to fundamental needs and effective use of resources (Pigneur et al. 2024). Examples of accompanying strategies for CM include decreasing EV and battery size and public over private transport (Riofrancos et al. 2023). Studies developing sufficiency scenarios for CM argue that sufficiency approaches are unavoidable if the world is to stay within planetary boundaries, and countries within their 'equitable fraction of global reserves' of CM (their fair share) (Lallana, Torrubia, and Valero 2024; Pigneur et al. 2024).

Demand reduction not only 'complicate[s] the conventional narrative' of CM supply and geopolitical competition (Fletcher et al. 2024), it also offers a promisingly strategic approach in geopolitics, particularly for CM importers. Hache (2022a, 2022b) provides a rare conceptualisation of a geopolitics of sufficiency. Policies for sufficiency help anticipate future CM dependencies and strategies to minimise them; suggesting a future form of geopolitical power. Power can arise from greater resilience and adaptation to supply shortages, national autonomy, trade balance, and energy security. Sufficiency redefines international leadership – from competition over supply and production, to (soft) power built on moderation, capacity to coordinate resource use, and exports of related expertise and technology. Further, energy security studies have demonstrated that demand-side actions outperform supply-side approaches (Bento et al. 2024, 946), reveal a multiplication of policy options for energy security, and come with significant co-benefits such as in public health (Kuzemko et al. 2025). Focused governmental policy attention to *demand-side mineral security* actions is timely (Lallana, Torrubia, and Valero 2024; Ralph 2021; Simms, Whitmore, and Pratt 2023).

Conclusion

In the context of a prolific expansion of critical minerals extraction for the clean energy transition, this article investigates the associated discourses of formal geopolitics actors and those of an Indigenous community network and supporting NGOs. The latter reflect – and/or in the case of the NGOs, support – Indigenous communities' relational, eco-centric onto-epistemologies and their "Right to Say

No” to CM projects. A critical geopolitics methodology of discourse analysis is applied. Identified discourse themes indicate that formal geopolitics actors fail to reconcile the “need” for CM mining with Indigenous perspectives – indeed, they are silent on Indigenous onto-epistemologies. Two “steps” are therefore discussed, to strengthen recognition of Indigenous perspectives. These include: catalysing ontological shifts through CM fora and inclusion of Indigenous Knowledge and research methodologies; and prioritisation of a CM circular economy, societal behaviour change, and sufficiency principles. Summing this up, and engaging with related Indigenous and Western inter-disciplinary concepts on minerals and the “geos” ([Literature Review: From Formal and Critical Geopolitics to the “Geos” In a Pluriverse](#)), this article points to an emerging “geos-politics”.

The two “steps” face significant challenges. Taking one actor in this article’s analysis, Australia, these challenges become clear. As an exporter of CM, *growing* markets for Australia’s CM is a government priority; posed as essential for national security. Australia is ‘progressing’ its CM circular economy (Australian Government 2023, 35) but this is in its early stages. Australia also has a ‘poor track record around informed consent and *recognition of First Nations perspectives* and land rights’ (Hine, Gibson, and Mayes 2023, 246, *italics added*). The Australian Government presents Australia as a world-leader in ESG performance. Sinclair and Coe’s (2024, 1) analysis of 17 Australian Federal Government, and State/Territory Government, Critical Minerals Strategies (including the latest Federal Government CM Strategy analysed in this article) suggests otherwise. These documents expose ‘limited attention paid to improving environmental and social regulation or First Nations’ rights ... [Yet] ‘ESG’ is presented as a competitive advantage in global markets’. Despite up to 79.2% of CM projects being located where Indigenous peoples have a right to negotiate, and multiple billions of Australian dollars allocated to CM exploration and production, ‘government resources have not been explicitly earmarked to support the participation of Indigenous groups’ (Burton et al. 2024, 3). Australia’s Federal Government CM Strategy is also silent on Australia’s significant *international* mining presence and related policy regarding its impacts on Indigenous communities.

Moreover, in 2026, the US-led Minerals Security Partnership (MSP) has been eclipsed by the US Trump Administration’s FORGE and bilateral partnerships, delivering investment for derisking CM projects with allied partners (Baskaran and Schwartz 2026). Securing CM for defence technologies, volatile geopolitics, and transactional, deal-making diplomacy overshadow calls for high ESG standards in responsible supply chains. This is why it is ever more important in the CM space – so central in today’s formal geopolitics minds – to support pluriversal ontologies in minerals geopolitics, and to seek ways to counter zero-sum mineral competition and increasingly warlike, land-grabbing discourses.

Finally, this article’s research limitations demonstrate that, despite applying a coding procedure (Jackson and Bazeley 2019) to limit subjectivity during the

discourse analysis, subjectivity remains, influenced by the author's positionality and aim to comprehensively capture themes in the actors' discourses around CM. There was also limited opportunity to assess Indigenous networks' documents (e.g. due to language restraints) and crucially, to directly bring in Indigenous voices. Future research will apply alternative methodology that directly engages with Indigenous communities, and representatives of formal geopolitics.

Notes

1. See also Western anthroposophical thought on metal therapy (Metal Colour Light Therapy 2024).
2. These organisations endorsed particular documents included in the analysis (Burgess and Downes 2021a, 2021b, 2022). The documents note that research by campaigners in YLNM was integral.
3. Documents of LMN and War on Want (Hitchcock Auciello 2019; Whitmore 2021) state that the research was supported by YLNM.
4. FoE Scotland commissioned the report, Unearthing injustice: A global approach to transition minerals (Simms, Whitmore, and Pratt 2023) which notes that source material was also provided by LMN (Minas Rio), Aid/Watch (Australia) and NRDC (Chile).
5. Voluntary ESG standards form criteria by which companies measure and report on their socio-environmental sustainability and governance performance.
6. IEA's five Levers for Policy Action include: robust regulatory regimes, directed public spending, tracking and monitoring performance, making supply chains more transparent, and support for voluntary sustainability standards. These are applied across six Focus Areas: communities, human rights, water, greenhouse gas emissions, biodiversity and corruption.
7. Conference agenda: the session included a presentation by Mariane Jago (Song about Feeling: River listening and the remaking of place); and also Philipa Duthie (Conversing with River: Nurturing multispecies relationships through cooperative inquiry).

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