Towards a Just Transition

Exploring Discourses, Regulation, and Indigenous Engagement in Western Australia's Lithium Frontier

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Master Thesis Series in Environmental Studies and Sustainability Science, No 2024:014

A thesis submitted in partial fulfillment of the requirements of Lund University International Master's Programme in Environmental Studies and Sustainability Science (30hp/credits)



LUCSUS Lund University Centre for Sustainability Studies



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Submitted May 12, 2024

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Abstract

Reducing CO2 emissions is crucial in combating climate change, with clean energy technologies playing a key role. Lithium is a vital component in such technologies but has extensive environmental and social impacts, including Indigenous oppression. This thesis examines how lithium mining in Western Australia (WA) is discursively legitimised and how the discourses interact with WA's social structures, and regulation. Using NVivo and applying Social Constructionist and Regulation Theory frameworks, this thesis conducts a Critical Discourse Analysis of 153 documents from five actor groups. The study reveals three primarily economically driven justifications for mining, countered by two themes scrutinising sustainability impacts. In interaction with the social structures, two frictions arise, mostly regarding Indigenous marginalisation. The regulatory responses to these reveal a governmental prioritisation of the accumulation regime over Indigenous interests. This perpetuates the historical capitalist extractivist economy and Indigenous marginalisation, highlighting the need for equitable policies as the lithium industry develops.

Keywords:

Green extractivism, energy transition, lithium mining, clean energy technology, settler colonialism, discourse analysis.

Word count: 11.997 words

Acronyms and Abbreviations

ACH	Aboriginal Cultural Heritage		
AHA	Aboriginal Heritage Act		
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies		
CCWA	Conservation Council of Western Australia		
CDA	Critical Discourse Analysis		
CET	Clean energy technology		
CMS	Critical Minerals Strategy		
DA	Discourse analysis		
ESG	Environmental, Social and Governance		
ET	Energy transformation		
EV	Electric vehicles		
FBI	Future Battery Industry		
GE	Green extractivism		
IEA	International Energy Agency		
S18	Section 18 of the Western Australia Aboriginal Heritage Act		
NT	Native Title		
NTA	Native Title Act		
РККР	Puutu Kunti Kurrama and Pinikura		
PM	Pilbara Minerals Ltd		
RE	Renewable Energy		
RT	Regulation Theory		
то	Traditional Owner		
WA	Western Australia		
YMAC	Yamatji Marlpa Aboriginal Corporation		

Acknowledgements

Firstly, I'd like to express my appreciation to my supervisors, Sinem Kavak and Ronald Byaruhanga, for their invaluable insights and support during this process. I appreciate how invested you were and the critical and constructive feedback you provided. An additional thank you to my thesis group, Alice and Mariarcangela, for your encouragement and feedback.

Thank you also Københavns Kommune for your many libraries, with a special shout out to Sydhavn Biblioteket and the adjacent animal farm – your goats have gotten me through some tough thesis moments. I am also grateful to my parents and their support not only during this thesis, but my overall academic career. Moreover, thank you to my housemates for your encouraging words and offering to take over my cleaning chores the week before the thesis deadline.

Appreciation goes out to the Öresundståg biljeter facebook group for providing affordable train tickets back to Sweden and allowing me to fully emerge in the thesis grind vibe in SamBib every now and then. A shout-out to Julia for securing a spot for me when the trains were delayed and for our many coffee and lunch breaks. To my other Lund friends, thank you for the countless experiences and memories shared over the past two years.

Tack för allt!

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1 Introduction

1.1 Problem description

The global shift towards clean energy technologies (CETs), driven by international agreements like the UN Sustainable Development Goals and the Paris Agreement, has heightened demand for critical minerals such as lithium, nickel, and cobalt (Graham et al., 2021; Ng et al., 2023; Sterba et al., 2019; Tabelin et al., 2021). While crucial in the fight against climate change, CETs require significantly more minerals than fossil fuel technologies. An electric vehicle (EV) for instance uses six times more minerals than traditional combustion engine vehicles (IEA, 2021). With the mineral reserves positioned underground, mining for CETs could cover over fifty million km² of the Earth's surface by 2050 - including in national parks, critical biodiversity areas, and the few remaining wildernesses on Earth (Fitzgerald, 2022).

Lithium, also called 'white gold', is particularly sought after for its smooth and efficient energy delivery and storage crucial for rechargeable batteries (Graham et al., 2021; Tabelin et al., 2021; IEA, 2021; Sterba et al., 2019). The demand for lithium-ion batteries is largely driven by the focus on EVs in decarbonisation policies (Graham et al., 2021; IEA, 2021; Ng et al., 2023; Tabelin et al., 2021). In fact, with numerous countries committed to phasing out fossil fuel-based cars by 2050 (IEA, 2021; Tabelin et al., 2021), EV sales are projected to skyrocket (Petavratzi & Gunn, 2023). Lithium demand – which already doubled and tripled in the past five and ten years respectively – is therefore set to keep increasing over the next decades (Graham et al., 2021; Hine et al., 2023; Kaunda, 2020; Tabelin et al., 2021).

Mining for the energy transition (ET) is also called "green mining" or "green extractivism" (GE) and poses various environmental and social challenges. Lithium mining specifically is very energy and water intensive (Piper, 2023), with other concerns including water contamination, air pollution, habitat disruptions, land erosion, waste management, biodiversity loss, and land grabbing (Graham et al., 2021; Hine et al., 2023; Kaunda, 2020; Petavratzi & Gunn, 2023). 'Green' thus not reflecting the process, but the application of the minerals for the ET (Hine et al., 2023).

1.2 Research aim, questions, and structure

Research on lithium extractivism predominantly focuses on the Global South, with research on the Global North gradually increasing (Canelas & Carvalho, 2023; Dunlap & Riquito, 2023). Despite being the largest lithium producer globally, little attention has been paid to Australia (Hine et al., 2023). This is concerning as Australia, particularly Western Australia (WA) where most of the lithium mining

occurs, has colonial tendencies and capitalist values that continuously prioritise commercial development over other land uses (Ellem, 2015; Hine et al., 2023). Perpetuation of such relations and the dominance of the development philosophy over that of e.g. Indigenous and pastoralists, risks marginalising those communities (Ellem, 2015; Hine et al., 2023; Marsh, 2013; Strelein et al., 2020). Given the increasing surge for lithium exploration, it is thus important to research how the traditionally exploitative mining system is discursively justified under the guise of environmentalism.

In analysing how discursive elements give meaning to lithium mining and how the nation's social and regulatory structures interact with the discourses, I answer the following research questions:

- 1. How is lithium mining discursively presented in Western Australia?
- 2. How do the discourses interact with social structures and specifically regulation?

In the next chapters, I discuss the background on GE, the case selection and Australia's lithium mining sector. I then present the three theoretical foundations of this thesis: social constructionism, regulation theory, and discourse theory. The methodology section covers how the Critical Discourse Analysis was conducted. In a combined analysis and discussion, I address the research questions, followed by the conclusion.

2 Background information

2.1 Literature review

Due to its application in CETs, lithium is frequently posed as the solution to a more sustainable world (Petavratzi & Gunn, 2023; Sterba et al., 2019; Tabelin et al., 2021). Such articles state that lithium supply disruptions would be devastating for the fight against climate change, arguing for accelerated development of new mines (Sterba et al., 2019; Tabelin et al., 2021). Globally, however, opening new mines comes with sustainability and community acceptance challenges (Araújo et al., 2022; Graham et al., 2021; Hine et al., 2023; Petavratzi & Gunn, 2023). These include both environmental impacts (Graham et al., 2021; Hine et al., 2023; Kaunda, 2020; Petavritzi & Gunn, 2023), and social impacts on existing infrastructures, land, Indigenous communities, livelihoods, and tourism (Graham et al., 2021; Marsh, 2013; Nagar, 2021).

Critical scholars warn against lithium's green application obscuring negative socio-ecological impacts and perpetuating extractivist capitalism (Araújo et al., 2022; Canelas & Carvalho, 2023; Hine et al., 2023; Mejia-Muñoz & Babidge, 2023; Schwab & Combariza Diaz, 2023; Voskoboynik & Andreucci, 2021). They posit that this techno-optimist stance limits the climate crisis to global warming, with its solution decarbonisation through alternative energy sources (Schwab & Combariza Diaz, 2023). This narrow focus overlooks broader societal and economic paradigms like the consumption society and economic growth (Hine et al., 2023; Schwab & Combariza Diaz, 2023) and makes the ET merely an adaptive action within the status-quo capitalist-extractivist model –promoting the notion of 'green' growth– rather than a transformative action towards socio-ecological resilient societies (Mejia-Muñoz & Babidge, 2023; Schwab & Combariza Diaz, 2023).

In fact, Hine et al. (2023) –the only researchers specifically focusing on Australian extractivism– believe the term 'green' mining has been promoted by the industry to capitalise on time sensitive climate goals through battery development, while diverting attention from their intrusive mining practices and fossil fuel investments. Under the urgency discourse this initiated a race to exploit critical mineral deposits rather than an ethical approach to a low-carbon future (Hine et al., 2023). Such a competitive 'race' mentality risks disregarding environmental and cultural sensitivities, treating all available land, including Indigenous Country, as potential mining sites (Hine et al, 2023). However, as noted by Schwartz & Combariza Diaz (2023), Indigenous peoples are not necessarily against mining as it can fulfil their material needs. Thus, to distinguish attitudes towards lithium mining, one needs to critically assess which dominant knowledge networks are in place, who produces that knowledge, and how these networks interact.

Against this backdrop, this thesis analyses how discursive elements justify lithium mining and how these interact with the nation's social and regulatory structures.

2.2 Australian mining industry

Australia's mining industry has long been crucial to the national economy (Parliament of Australia, 2010), with the well-endowed nation being a key producer of iron ore, coal, lithium, gold, zinc, nickel and cobalt (DeCoff, 2022). Mining revenue reached \$54.3 billion in 2022, marking a 32,7% growth driven primarily by coal, gas and oil extraction (Australian Bureau of Statistics, 2023). Despite not being the largest sector, mining contributed 12% to Australia's GDP that year (Stanford, 2023) and accounted for 21% of GDP growth over the past decade (Constable, 2023). The industry's exports, valued at \$413 billion, constituted 69% of the national export revenue (Constable, 2023). Moreover, WA was ranked as the second most investment attractive mining jurisdiction globally in 2022 – further solidifying Australia's position as a mining powerhouse (Mejía & Aliakbari, 2023). In 2023, the sector expanded to \$60.8 billion in revenue, with coal contributing \$27.7 billion. Critical minerals increasingly dominated industry deals, comprising 90% of the total deal value of \$14.2 billion (PWC, 2023), highlighting WA's commitment to developing the industry.

2.2.1 Lithium mining

Australia has some of the most renowned lithium deposits in the world (Graham et al., 2021), with a significant portion located in WA, where 54% of the country's battery minerals are mined (Western Australian Government, 2019). WA's history in natural resource development has established the required regulatory systems and infrastructure to facilitate the process from extraction to transportation (Ellem, 2015; Graham et al., 2021; Marsh, 2013). Government support, including smooth environmental approvals and financing, has encouraged lithium miners to capitalise on the region's expertise (Andrews, 2019). Since lithium exploration commenced in 1995 (Andrews, 2019; Phelps-Barber et al., 2022), WA's lithium output has increased elevenfold (Phelps-Barber et al., 2022). Between 2016-2017 and 2017-2018, WA was largely responsible for global production increases of 75% and 23% respectively (Tabelin et al., 2021). Australia significantly surpassed Chile as a main producer in 2017 and supplied 54.4% of the world's lithium by 2019 (Fig.1) (Graham et al., 2021).



Fig.1. On the left we see the development of the global lithium production between 2009-2020, with Australia being the largest producer followed by Chile, China, and Argentina. On the right, we see the global lithium deposits distribution before data on the Pilbara endowments was obtained. Deposits include reserves, proposed projects, and resources (Graham et al., 2021).

Within WA, the Pilbara region –well-known for its resource richness and supportive mining environment (Ellem, 2015)– produces 20% of global lithium (Wildcat, 2023). The supportive environment and pressure from the urgency discourse accelerated the timeline from exploration to production, exemplified by Pilgangoora only taking four years (Hine et al., 2023). Pilgangoora, situated on Nyamal land, is the world's largest hard-rock lithium mine producing 8% of global lithium (Pilbara Minerals, 2023). The Pilbara is home to over thirty Indigenous language groups, with Indigenous peoples constituting 12.9% of its population in 2021 (Fig.2) (OECD, 2023). Currently, the region faces well-being concerns connected to the harsh climate, remoteness, high reliance on mining for development and high levels of inequality, especially regarding Indigenous communities (OECD, 2023). Policy organisations, however, suggest that further development of the lithium industry could address those concerns (OECD, 2023).



Fig.2. An overview of the Indigenous communities in Australia, with the dashed square box approximately highlighting the Pilbara region. Adapted from (Horton, 1996)

3 Theory

This thesis builds on two different schools of thought and combines social constructionism with the Regulation Theory (RT). While epistemologically and ontologically different, my research demonstrated that the two have explanatory power regarding the case study and complement each other in understanding the relationship between discourses, social structures, and regulation. In line with social constructionism, this thesis also applies discourse theory. Following a grounded theory approach, my theories emerged from the data.

3.1 Social constructionism

This thesis is based in the epistemology of social constructionism. Social constructionists believe that what we perceive to be 'reality' is dynamically constructed and maintained by social conventions and structures (Jørgensen & Phillips, 2002). To them, social interaction shapes our knowledge, understanding of and common truths about the world and how one should behave in it. Influenced by historical and cultural factors, our representation of the world is subjective, challenging the notion of objective reality (Jørgensen & Phillips, 2002). Ontologically, social constructionists do not deny the existence of reality. Things can materially exist, and therefore be real (e.g., a chair), but in itself the thing means nothing. In the attribution of meaning to an object (e.g., chairs are meant to be sat on) social truths are created (Jørgensen & Phillips, 2002). This perspective redraws the attention back to epistemology, the focus of social constructionism.

In this thesis, lithium mining materially exists. What does not objectively exist is its reason. For some, the reason is profit, while for others it is fighting climate change. Mining, as an event in a specific place and time, is thus given meaning through different discourses. These discourses create different responses to mining, with the dominant discourses shaping the social world, e.g., the knowledge, identities, and social relations.

3.2 Regulation Theory

Regulation theory (RT), instead, focuses on ontology. Based in materialist ontology, it believes that material conditions shape society and seeks to understand its structures and dynamics. Posing that capitalism can survive its internal contradictions due to regulation (Harber, 2013; Heino, 2022; Ormaechea et al., 2021), RT examines how national institutions shape economic processes and structures, considering power relations and historical contexts (Grinberg, 2023). It encompasses three concepts: the accumulation regime, mode of regulation, and model of development (Heino, 2022).

The accumulation regime reflects economic patterns of consumption and production, delineating the economic framework in which capitalism operates (Heino, 2022; Ormaechea et al., 2021). Inherently ridden with "conflictual tendencies" (Harber, 2013), the accumulation regime is stabilised by the *mode of regulation* (Harber, 2013; Heino, 2022). Comprised by institutional forms and commitments shaped by historical social and political struggles, the mode of regulation is based on various values (ranging from capitalist to sustainability values) that adjust actor behaviour to align with the accumulation regime (O'Faircheallaigh, 2023; Ormaechea et al., 2021). Together, the accumulation regime and mode of regulation stabilise capitalism in the *model of development* (Heino, 2022; Ormaechea et al., 2021).

While this thesis agrees with RT's emphasis on the role of regulation in smoothing out frictions in Australia's accumulation regime (e.g., sustainability concerns), it criticises RT's overemphasis on macro-economics. Moving beyond economic determinism, this thesis adopts a cultural deterministic perspective of regulation as leveraging discourses to mitigate tensions and construct consent. Assuming a social constructionist stance, it argues that different ideologies and discourses interact to shape the regulatory landscape surrounding lithium mining, which dialectically shapes the discourse.

3.3 Discourse

3.3.1 Introduction

Discourse is embedded in social constructionism. While there are many different understandings of discourse, this thesis defines it as "a coherent story about the world where power is exercised by narrowing the variety of interpretations possible" (Hajdu & Fischer, 2017, p.541). Discourses are conveyed through communicative events (e.g. texts or videos) and express a 'logical' way of understanding and talking about the world, whereby other perspectives are silenced (Hajdu & Fischer, 2017; Jara & Bruns, 2022; Mullet, 2018). Anchored in "a web of historically and contextually specific social and spatial power relations" which they either reproduce or alter (Johnson & McLean, 2020, p.337), discourse constructs the social world (Jørgensen & Phillips, 2002).

Language is crucial in constructing the social world. As a social practice, it gives meaning to individual letters through their relations with other letters and words (Jørgensen & Phillips, 2002) – e.g., 'chair' derives its meaning from the order of five specific letters, but depending on the context the word could refer to an object to sit on or instead the chairperson of a council (Fairclough, 1992; Jørgensen & Phillips, 2002). This suggests that social structures can be shaped from within language (Jørgensen & Phillips, 2002). Discourse analysis (DA) builds upon the idea that language does not only reflect reality, but that it shapes its perception (Fairclough, 1992).

3.3.2 Critical Discourse Analysis

Theory and methodology in DA are intricately intertwined and not all theoretical frameworks match well with DA. Critical Discourse Analysis (CDA), however, offers both theoretical and methodological foundations for studying discourses in social domains (Jørgensen & Phillips, 2002). This thesis therefore employs Norman Fairclough's CDA approach, which goes beyond describing discursive practices by also analysing the text's context (Fairclough, 1992; Jørgensen & Phillips, 2002).

Drawing from language and social theory, CDA analyses the dialectical relationship between 'reality' and discourse. Specifically, how ideologies and power are mobilised through language to shape discourse, and how discourse in turn constructs the social world (Fairclough, 1992; Mullet, 2018; van Leeuwen, 2006). Through uncovering mismatches between reality and ideologies, it aims to critique hegemonic discourses and address the inequalities and injustices they create and maintain in society (Mullet, 2018; van Leeuwen, 2006).

Discourses have two dimensions. The first is the communicative event that mobilises language in some form of media. The second is the order of discourse, which is the sum of all discourses (types and genres) used within a social domain (Fairclough, 1992). Herein, discourse types reflect broad categorisations of social practices, whereas genres refer to their style (Fairclough, 1992). The stability and continuity of hegemonic discourses depend on how they draw on the discourses from earlier communicative events – this is called intertextuality. If the intertextuality is creative and introduces new discourses to the order, it creates interdiscursivity, which can challenge the hegemonic discourse (Fairclough, 1992; Jørgensen & Phillips, 2002).

Various discourses exist, but they aren't equally influential (Fairclough et al., 2011). Power relations between discourses are explained through ideology and hegemony (Jørgensen & Phillips, 2002). Ideology is embedded in social structures and communicative events and naturalise 'common sense'. This establishes norms and conventions in society, creating optimal conditions for sustaining relations of domination: the hegemonic state (Fairclough, 1992; Mullet, 2018). Although individuals' actions are constrained by dominant ideologies, making creative connections between texts presenting different ideologies can incite ideological struggles against hegemonic meanings, potentially reshaping discursive practices and relations of domination (Fairclough, 1992; Jørgensen & Phillips, 2002).

By focusing on readily accessible communicative events, this thesis examines how the hegemonic public order of discourse on lithium mining in WA are shaped and contested by various actors.

4 Methodology

This thesis analyses documents produced by a variety of actors that together constitute the public discourse on lithium. It does so through a case study on WA, with a focus on the lithium-rich Pilbara region.

4.1 Methodology – Critical Discourse Analysis

For Fairclough (1992), social practices are not just shaped by discursive practices, but also by nondiscursive elements, social relations, and social structures (e.g., political, regulatory, economic, cultural mechanisms) (Jørgensen & Phillips, 2002). Therefore, a comprehensive DA requires taking an interdisciplinary perspective comprising both a textual and social analysis to unearth its interlinkages (Araujo et al., 2019; Fairclough, 1992; Jørgensen & Phillips, 2002).

Fairclough identified three non-linear dimensions to discourses: text, discursive practice, and social practice (Fig.3) (Fairclough, 1992; Johnson & McLean, 2020; Jørgensen & Phillips, 2002). **Text** refers to the "description" of the text, and how discourses and genres are manifested linguistically (Fairclough, 1992; Jørgensen & Phillips, 2002). **Discursive practices** entail the production, distribution, and consumption of texts in different social contexts. In analysing this, one looks at intertextuality as well as at social constrains to the process, e.g., low interdiscursivity (Fairclough, 1992; Jørgensen & Phillips, 2002). The **social practice** includes broader social dimensions, such as non-discursive elements and social structures (Jørgensen & Phillips, 2002).



Fig.3 The three-dimensional framework of CDA (Fairclough, 1992).

First, I analyse the discursive practices and texts to answer RQ1. Next, for RQ2, I assess the broader social practice in which the communicative events are placed and apply social constructionism and RT to analyse how discourse interacts with other discursive and non-discursive elements like policy.

4.2 Method – Case study

I focus on the case of WA due to its elaborate mining industry, abundant lithium resources, settler colonial background, and existence of Indigenous land rights systems. Encapsulating various factors that could affect the acceptability of the lithium industry, WA poses a suitable case for a CDA on GE.

As a settler colony, Australia's colonisers sought both resource exploitation and permanent replacement of Indigenous peoples (Aboriginals and Torres Strait Islanders) through genocide and assimilation (Benson et al., 2023; Haebich, 2015; Klein, 2020; Russell, 2020). The doctrine of terra nullius, which claims that uninhabited territory –by European standards– was free for colonisation, rationalised this violent occupation (Benson et al., 2023; Watson, 2014). The reconstruction of Australia as a white society entrenched Western norms and economic ideals, with Indigenous inadequacy discourses and paternalistic policies further marginalising Indigenous communities (Benson et al., 2023; Haebich, 2015; Marsh, 2013; Smallwood, 2020; Strakosch, 2015, 2019). This facilitated the significant influence of mining capital over politics and created favourable mining states attracting (inter)national investment (Graham et al., 2021; Ellem, 2015; Hine et al., 2023; Marsh, 2013).

Settler colonial dynamics are persistent in WA's mining laws, which plainly favour commercial development over Indigenous interests. For instance, under section 18 (S18) of the Aboriginal Heritage Act (AHA) miners are allowed to destroy Aboriginal Cultural Heritage (ACH) without Traditional Owners (TO) being able to appeal (Nagar, 2021). While introducing the Native Title Act (NTA) in 1993, which now covers 50% of Australia's landmass (Hine et al., 2023)– Indigenous communities only have six months to negotiate land use agreements before a Native Title Tribunal (appointed by Australia's Governor-General and historically biased towards development) decides (Nagar, 2021). Agreements have oftentimes thus been "take-it or leave-it" offers ridden with power imbalances (Nagar, 2021). These pro-development regulations sustain the exploitative relationships with the land and subjugation of Indigenous peoples (Hine et al., 2023; Marsh, 2013; O'Keeffe, 2024). Lithium mining in this context risks perpetuating the traditional settler-colonial extractivist logic by prioritising commercial interests over others through the terra nullius doctrine and thus requires in-depth investigation (Hine et al., 2023; Marsh, 2013).

4.3 Method – Document Analysis

For Fairclough's text-oriented CDA (Fairclough, 1992; Jørgensen & Phillips, 2002), this thesis conducted a document analysis. A document analysis is a qualitative process of reviewing different documents that were produced without intervention of the researcher, so that one can gain meaning to and understanding of the text (Bowen, 2009).

4.3.1 Actor and text selection

Given the embeddedness of discourse in society, Fairclough stresses the importance of systematic analyses of everyday written social interactions like mass media (Jørgensen & Phillips, 2002). As a critique to Fairclough's analysis of single texts, Jørgensen & Phillips (2002) argue that larger ranges allow for easier representations of the role of discursive practices in changing the social world (Jørgensen & Phillips, 2002). Hence, this thesis reviews large set of documents from various sources.

The focus of this analysis was groups and organisations with the power to produce public knowledge and thereby discourses on lithium. Van Dijk (2011) identified these as journalists, scientists, government representatives, corporate managers, NGO's, and other authority figures. Tailoring this to include Indigenous peoples, I adopted five actor classifications: mining industry, Indigenous peoples, governments and institutions, media, and independent agencies. Following a grounded theory approach, I gathered documents through theoretical sampling (Bowen, 2009). Drawing from Voskoboynik & Andreucci (2021), the rationale for inclusion was based on relevance, representativeness, and public accessibility to reflect the societal debate on lithium mining in WA.

The document collection process was similar for all actors. However, to identify the most popular journalistic media websites in Australia, an external website was consulted (FeedSpot, n.d.). Additionally, given the prevalence of mining in the Pilbara region and to include the Indigenous voice, the regional Yamatji Marlpa Aboriginal Corporation (YMAC) and Pilbara Minerals (PM) who operates on the land of YMAC members were included as actors. Documents were retrieved from official websites as well as through Google.com and intertextual chains. The keywords used were a combination of "lithium [mining]", "green mining", "critical minerals" and "[Western] Australia". Lastly, only digital documents were consulted due to the thesis being written from Sweden.

This thesis analysed 153 documents worth 2433 pages of text, produced by 31 actors (table 1 and Appendix 4). While initially another 51 documents were collected from the media category (325 pages) a redundancy level was reached. These documents were scanned and removed from the sample due

to not providing new or relevant insights. Comparisons between the actor classifications cannot be taken at face value due to unequal group sizes.

Table 1. Identified actors and analysed documents in the Australian lithium mining context. The numbersbetween brackets indicate the number of documents and pages analysed per actor respectively.

Mining industry	Altura (2,109); Amec (1,1); Pilbara Minerals Ltd (5,476)			
Indigenous peoples	Yamatji Marlpa Aboriginal Corporation (2,51); Australian Institute of Aboriginal and Torres Strait Islander Studies (1,10)			
Government and institutions	Western Australian Government (13,609); Australian Government (4,110); The Greens (1,4); Court of Australia (1,37); Northern Australia Infrastructure Facility (1,6)			
Media	9News (1,3); ABC News (62,438); Australia's Paydirt (7,21); Australian Financial Review (2,15); Australian Mining (5,26); BBC (2,18); E&MJ (1,3); Lowy Institute (1,6); Mining Technology (3,7); Mining Weekly (2,4); Mirage News (1,7); National Indigenous Times (17,46); The Age (8,68); The Conversation (1,7); The Guardian (4,30); The West Australian (1,8), WAtoday (1,11)	718 pages		
Independent agencies	Conservation Council of Western Australia (1,5); International Energy Agency (1,287); McKinsey (1,10)	302 pages		

4.3.2 Coding process

Coding is an analytical tool used to categorise patterns and underlying ideas in a text, forming "a focus for thinking about the text and its interpretation" (Gibbs, 2021, p.4). In line with grounded theory, this thesis employed both deductive (concept-driven) and inductive (data-driven) coding (Gibbs, 2021). NVivo14 was used for this process. Seventeen codes were initially deduced from the literature review and tested across fourteen articles representing all actors. Using an open-coding approach, which entails loose and tentative inductive coding to present data in categories (Gibbs, 2021), the codes were supplemented with new codes where necessary. The texts were then uncoded, followed by a round of focused coding of all texts. Elimination and combination based on redundancy, overlap, and relevance resulted in thirty final codes (Fig.4). Appendix 1 contains the code book.



Fig.4. Overview of the coding process. Starting with seventeen codes in the deducted set, expanding to 25 after the first round, and finalising the coding set with thirty codes.

From the codes, I identified seven discourses that shape the public discourse on lithium, constituted by fifteen discourse types and genres (table 2). Given the qualitative nature of the analysis, the codes are not mutually exclusive and collectively exhaustive, so numerical or comparative references should be undertaken with caution. Data on the frequency of coding, interdiscursivity, and quoted functions are included in Appendices 2, 3 and 5 respectively.

Table 2. Division of the thirty codes into fifteen discourse types or genres, and seven orders of discourse. The first two columns are presented according to the frequency of coding, the third alphabetically. As the codes are not mutually exclusive and collectively exhaustive, the number of codes cannot be taken at face value.

Discourse	Discourse type/genre	Codes
		Clean energy technologies
	Marketisation discourse	Demand for clean energy technologies
		Economic value
Economic discourse		Employment
	Development discourse	Limiting impact of mining
		Pro-development
		Regional development
		First Nations oppression
Indigenous	Domination discourse	First Nations struggles
discourse		Settler colonialism
	Emancipation discourse	First Nations fight for recognition

		First Nations granted recognition	
	Cultural discourse	First Nations culture and history	
		Australian nationalism & duty	
	Narrative genre	Future imaginaries	
Promotional		Company values	
discourse	Corporate advertising discourse	Greenwashing	
		Sustainable operations	
	Reputational discourse	Existing infrastructure and knowledge	
	Legal discourse	Regulation	
discourse		Fast tracking	
	Strategic discourse	Government support	
		Promises/agreements	
discourse	Social discourse	Relational ties	
		Social pressure	
		Contestation & disturbance	
	Green extractivism discourse	Reflective/critical of lithium mining	
Counter discourse		Unsustainability of lithium mining	
	Climate scepticism	Anti-energy transition and climate denial	
Ecological	Climate crisis discourse	Climate change and urgency	
discourse	Urgency discourse	Climate change and urgency	

5 Analysis and discussion

5.1 Discourses on lithium mining in Western Australia

In this section, I answer RQ1 through a combined analysis and discussion. Through the CDA, I identified five main themes that discursively present lithium: welfare, climate crisis, duty, indigenous experiences, and criticism. While the first three themes highlight the rationale behind lithium mining, the latter two detail the experiences with and resistance to mining. The themes are constituted by the seven identified discourses, which are further broken down into discourse type and genres.

5.1.1 Welfare

Table 3. The welfare theme is constituted by the economic, promotional, and institutional discourses. The sequence of the first two columns is according to the frequency of coding in the overall public discourse on lithium.

Discourse	Discourse type/genre	Aim
Economic	Marketisation	The marketisation discourse commodifies lithium as a resource
discourse	discourse	for energy technologies with the purpose of making money.
	Development	The development discourse focuses on the jobs and regional
	discourse	development benefits derived from the lithium industry.
Promotional	Narrative genre	The narrative genre reflects ambitions for increasing the
discourse		nation's welfare and becoming a renewable energy
		superpower. Simultaneously, it is employed to promote lithium
		as something that will benefit future generations.
Institutional	Strategic discourse	The strategic discourse emphasises governmental support to
discourse		the industry as well as ambitions for fast-tracking.

Emerging through an interdiscursive mix of elements from the three dominant discourses, the welfare theme strongly shapes the public discourse on lithium. Welfare refers to the overall well-being, prosperity, and quality of life of Australians as a collective group. Discussing four observations, I highlight how lithium's purpose is reshaped as something to commodify and deliver welfare.

Firstly, the marketisation discourse underlines lithium's instrumental value for consumer commodities (CETs) rather than the broader ET (9News, ABC5,17,20,22,27, Age3, AuPaydirt2,3, CCWA, IEA). This is exemplified by statements like "Lithium: the fastest-growing mineral, driven by surging EV deployment" (IEA), and the "ever-increasing demand for critical minerals used in technologies such as electrical vehicles, energy storage and solar panels" (CCWA). In fact, a news article titled "Australian lithium miners powering the global electric vehicle charge" (ABC20) directly swaps out *global ET* for *global electric vehicle charge*. This framing puts consumer goods like EVs as the primary demand drivers for CETs rather than climate change as a natural event. Additionally, sentences like "Tesla estimates worldwide production of refined lithium must increase 25-fold by 2035 to meet global

decarbonisation goals" (ABC5) portray EV manufacturers as industry experts, reinforcing the framing of lithium's purpose as for EVs specifically. This insinuates that lithium is just a commodity to make profit on.

The second observation is that the institutional and economic discourses are often used in conjunction to highlight lithium's value and reshape its purpose to boost the industry and economy. In a "race" for profit and power (e.g., ABC8,26,37, Age1, TWA), lithium has been put central to global competition and wealth accumulation. As the texts suggest, government support to the lithium industry is crucial in ensuring capitalisation on the lithium boom, and simultaneously, the lithium industry is crucial for bolstering the national economy (ABC6,9,11,30,34,49, AFR2, Age2, Amec, AuGov1, Guardian 2NIT4, TWA, WAGov2). While already projected to surpass WA's fossil fuel industry by 2028 (ABC13,17, Age2, MT1), the "race" has industry demanding faster and more facilitative government policies, stating "the enormous benefits of the emerging clean energy mining boom are not going to materialise with the wave of a wand" (TWA).

Resultant government initiatives include the Critical Minerals Strategy (CMS) and WA's Future Battery Investment Strategy (FBI) (AuGov1, WAGov2). While both highly interdiscursive, the ecological discourse lacks, with the strategies' mainly focusing on harnessing value-adding opportunities. For instance, the CMS is designed to "maximise the national benefits of Australia's internationally significant critical minerals endowments" (AuGov1) and the FBI to "grow Western Australia's future battery industry and transform it into a large source of economic development, diversification, jobs and skills" (WAGov2). The economic motives also become clear in how the FBI employs the narrative genre in its ambitions to place WA at the heart of the *global industrial revolution*, rather than the *global ET* (WAGov2) - like the earlier *global electric vehicle charge* (ABC20), this reshapes lithium's purpose to industry development.

The third observation is how the strategic and economic discourses creatively use two sustainability notions to support its argument to mine. Firstly, in the FBI's second foreword, WA's Chief Scientist Peter Klinken employs the narrative genre to mobilise the intergenerational principle. Pivotal in environmental justice frameworks, this principle highlights the current generation's ethical responsibility to consider the resources and development needs of future generations (Sovacool et al., 2016). After mentioning the profits accompanying the battery industry, Klinken envisions future generations would ask, "What were you doing when you had all the elements necessary for battery production, and you chose to ignore them?" (WAGov2). This economic twist insinuates that lithium's economic benefits are the main needs of future generations, not a sustainable world.

Secondly, Klinken mobilises the urgency discourse to capitalise on the climate crisis.

"What a time to develop new mines...", "This is not a time to be timid or risk averse... So, let's go forward confidently and make the most of this exciting, once-in-a-generation opportunity. This is our moment!" – WA Chief Scientist (WAGov2)

Through bringing the urgency discourse into the economic discourse, Klinken substitutes lithium's purpose to fight the imminent threat of climate change with the threat of missing out on profits. Moreover, besides instilling a sense of rush through his emphasis on *this* being the time to act, Klinken also creates a collective identity through the word *our* – portraying Australians as a united front, and lithium mining as something positive for everyone.

The last observation pertains how the development discourse shapes lithium's purpose to be a provider of work and regional development (9News, ABC10,13,27,35, Age4, AM3, AuGov1,3, McKinsey, MW, NAIF, NIT1, PM5, TheGreens, WAGov1,2, YMAC1). For example, "the development of our critical minerals industry will create jobs and national wealth" (AuGov1). Texts also promote community investments in infrastructure, local initiatives, health, housing, education, and population growth (ABC13,15,33, Amec, AuGov1, IEA, NIT1,2, PM1,3,4, TheGreens, WaGov2). In fact, a government study showed that every \$1 million invested in the industry translates to \$10.3 million in direct benefits for WA (Amec) – leading to government officials seeing the industry as a regional economic revival and "new golden age" (ABC15,39). The common thread in the development discourse is presenting lithium as bringing collective benefits for regular Australians rather than merely profits for the miners and government.

5.1.2 Climate crisis

Table 4. The climate crisis theme is constituted by the ecological and promotional discourses. The sequence of the first two columns is according to the frequency of coding in the overall public discourse on lithium mining.

Discourse	Discourse type/genre	Aim
Promotional discourse	Narrative genre	The painted narrative of a sustainable, clean energy world.
	Corporate advertising discourse	Mining companies and governments using it to promote their (company) values and intrinsic motivations.
Ecological discourse	Climate change discourse	Mining to stop climate change.
	Urgency discourse	References to the urgency of combatting climate change.

The climate crisis theme –lithium mining to stop climate change– initially seemed central to lithium mining but was one of the least emphasised in the texts. Only constituted by the ecological discourse

and occasionally the promotional discourse, this theme has low interdiscursivity. The CDA revealed five observations.

First, under the ecological discourse lithium is linked directly to climate goals, shifting the focus from specific CETs to the broader fight against climate change (e.g., ABC4,5,10, IEA, PM3). In their annual report, PM for instance contextualises CETs within decarbonisation ambitions: "These technologies are crucial in supporting the world's ambition to achieve net-zero and therefore the collective aim to limit global warming to 1.5 degrees Celsius" (PM3). Other statements also underscore lithium as an "indispensable element of the world's effort to decarbonise" (ABC5), and thereby "vital to climate goals globally" (ABC4).

Second, the climate change discourse portrays fighting climate change as interlinked with mining (ABC10,20,24,27, AM1,2, Guardian1, NIT3, PM2,3, AuGov1). Federal Resource Minister Madeleine King underlines the vital role of critical minerals for the ET (AM2) saying "without the resources industry there is no net zero" (NIT1). Similarly, the Treasurer for Australia stated, "Australia's goal to become a renewable energy superpower could not be achieved without mining" (AM1), with PM highlighting that they "are enabling the global transition towards a clean energy future by mining and processing hard-rock lithium" (PM2). This narrative of mining for a more sustainable world hasn't successfully changed perceptions of mining yet, however, with only 54% of respondents to a global survey deeming mining as an important climate solution (AuGov1).

Thirdly, I found that the ecological and corporate advertising discourses are synergistically used to mobilise lithium's green credentials. This is specifically done for employee attraction. In their recruitment statements, PM for example says, "we are on the lookout for people who want to be part of something big, an industry that will enable the global energy transformation and make the world a better place", and "take a front row seat in the sustainable energy transformation!" (PM2). Similarly, the CMS states "This is a valuable opportunity for people at all stages of their career to consider the diverse career options available in the critical minerals sector to drive the net zero transition" (AuGov1). Whereas the first two sentences appeal to intrinsic motivation for making the world a better place, the latter sells contributing to the ET as an experience not to miss.

Fourth, the texts instil a sense of urgency over the looming climate degradation, which spurs calls for lithium production (ABC12,27,40, Age7, IEA, Lowy, PM1, TWA). To illustrate, "everything is now an emergency... We need to be making batteries and electric vehicles 10 times [faster]" (ABC27). In similar fashion, at the International Mining and Resources Conference, the Chair of the Extractive Industry Transparency Initiative said, "the time is now", emphasising the "opportunity for the mining sector to

contribute to sustainable development and the fight against climate change. You have the influence to ensure this is a priority" (ABC40). Besides utilising the urgency discourse, through the word *you*, the Chair personally attributes the responsibility to mitigate climate change to the mining sector.

This ties into the last observation. From a textual analysis perspective, use of personal and impersonal statements interestingly appoints responsibility for climate action to different actors. For example, in the sentences "the urgency is palpable; we do not have decades, perhaps not even years, to correct our course" (TWA) and "we're in a crisis, a climate crisis" (ABC12) the authors create a collective identity and problem. If the climate crisis is our problem, it's also our responsibility. Contrasting mentions of 'our planet' by the IEA (IEA) and 'the planet' by Minister King (AuGov3) show differing approaches to environmental stewardship, with the former emphasising collective responsibility and the latter distancing humans from the planet. This suggests that for King, taking care of the planet is something done for extrinsic reasons like profit, while the IEA sees it as intrinsic environmental care for our shared home. Notably, King does refer to 'our natural minerals endowment' (AuGov1) – using personification to call upon Australia's feelings of ownership and pride. The Northern Territory Mining Minister similarly stated, "I've got no doubt that *the* world will continue to move towards a renewable future, and they need our lithium for that" (ABC24). Through this distancing, the Ministers create identities of the world as a customer and Australia as a supplier. This insinuates that the ecological discourse is mobilised merely out of monetary objectives rather than an intrinsic objective to fight climate change.

5.1.3 Duty

Discourse	Discourse type/genre	Aim	
Promotional	Narrative genre	The narrative genre plays on feelings of Australian nationalism	
discourse		to increase its geopolitical footprint and boast its resource	
		endowment, expertise, and contribution to the industry.	
	Corporate advertising	Mining companies and governments that promote their values	
	discourse	and business operations to show their ethical and responsible	
		operations.	
	Reputational	Promoting the existing infrastructure and knowledge to attract	
	discourse	investment and justify why the mining should happen in	
		Australia.	
Institutional	Legal discourse	Mentions of well-established regulatory frameworks that	
discourse		create a reliable mining environment.	
	Strategic discourse	Monetary and strategic support from the government to	
		maintain and/or improve the regulatory frameworks. mana	
Conversational	Social discourse	Pressure from the public and investors for ethical supply	
discourse		chains.	

Table 5. The duty theme is constituted by the promotional, institutional, and conversational discourses. The sequence of the first two columns is according to the frequency of coding in the overall public discourse on lithium.

Australia is well known for its stable jurisdiction, mining expertise and production of high-quality lithium through sustainable operations. Utilising four arguments, this creates the notion of a duty –to its current and future citizens, other countries, and the planet– to mine.

Firstly, through the narrative genre Australia's resource endowment is depicted as crucial for the lithium market (ABC24,25 AuGov1, WAGov2,5). The CMS pushes, "Australia's geology alone demands that we play a key role in the energy transition" (AuGov1), but also the Northern Territory's Ministers for Mining and Industry by stating, "there are materials you absolutely must mine to achieve decarbonisation and tackle climate change head-on, and many of those materials are available here" (ABC25, BBC1) and "the world will continue to move towards a renewable future, and they need our lithium for that" (ABC24). Similarly, PM believed Pilgangoora to be "one of the big new mines that ultimately has to boost the lithium raw material supply" (AuPaydirt3). Modal verbs such as "demands," "must," "need," and "has to" convey a sense of duty for Australia, as a well-endowed mining country, to develop its lithium industry.

Secondly, the experience derived from the established mining industry is used to underline the duty to mine for global decarbonisation goals (ABC19, AuGov1,3, McKinsey, PM1, TWA, WAGov1,2,4,5). This argument highly features the reputational discourse.

"Right now, our traditional resources industries are playing their part, that know how, that knowledge and expertise that this country has built over many years will be applied through the critical minerals industry as well. And that will be a very good, very positive future for this country and nothing less than the globe and our net zero emissions ambitions" – Minister for Resources (AuGov3)

Third, the narrative of Australia's duty is reinforced by its strong regulatory environment, ensuring ethical and sustainable practices (ABC19,25,40,47, Altura2, AuGov1, IEA, WAGov5,6, PM6). Indeed, the "global thirst for the minerals needed for new technologies has unearthed the unethical practices of miners in some African countries" (ABC46). Highlighting Australia's world-class ESG performance, the CMS promotes that Australian miners can "offer more sustainable and ethical critical minerals than many of our competitors" (AuGov1). The WA government specifically advocates for its exemplary sustainable mining operations (WAGov2,5) promoting its high-quality, low-risk lithium in a "stable jurisdiction" and "solid mining state" (AuPaydirt3,4). In fact, WA's Environmental Protection Act has been internationally recognised "as having leading practice impact assessment policies and procedures which are both proactive and pioneering" (WAGov3), underlining its effective and responsible environmental protection measures.

Lastly, lithium mining is framed as Australia's geopolitical duty to save the world from dependency on China. As an emerging lithium hub (ABC5,9,13,39, AuGov3, AuPaydirt4, PM3, WAGov2) and in the face of increasing concerns over China's market domination WA has become an attractive alternative supplier for international markets like the US and EU (ABC4,23,28,45, AFR2, AuPaydirt2, McKinsey).

"We are the only location with the minerals, cheap energy and industrial infrastructure to vertically integrate our domestic production and compete with China" - CEO of WA FBI Cooperative Research Centre (ABC13)

5.1.4 Indigenous experiences

Table 6. The Indigenous experiences theme is constituted by the Indigenous, promotional, institutional, and conversational discourses. The sequence of the first two columns is according to the frequency of coding in the overall public discourse on lithium mining.

Discourse	Discourse type/genre	Aim
Indigenous	Domination discourse	Recounting of colonial oppression from Australia towards the
discourse		Indigenous communities.
	Emancipation	Indigenous peoples fighting for and being granted recognition
	discourse	of their traditional ownership of the Country.
	Cultural discourse	Tales that depict the connection Aboriginals to Country and
		their culture
Promotional	Narrative genre	Imagining better lives for the current and future generations
discourse		under the benefits derived from the mining industry.
Institutional	Legal discourse	How the Indigenous communities experience the legal system
discourse		in Australia.
Conversational	Relational discourse	Stories about the relationships between the communities with
discourse		the government and the mining companies.

As 60% of mining in Australia occurs on Native Title (NT) land (AuGov2), Indigenous peoples are prominent stakeholders in the mining process. While allowing mining on their lands under material livelihood arguments, caring for Country remains the priority and guides their acceptance of mining. If their priority is compromised, Indigenous discourses can become counter discourses. I highlight five observations.

Firstly, Aboriginals have been (and still are) fighting for the survival of their traditional laws and customs for over two centuries of colonisation.

"This determination of native title does not create native title in the Determination Area. Instead, it marks the recognition, by the Australian legal system, of the Nyamal's people long held, and pre-existing, native title in this land" - Nyamal lawyer (CourtOfAu) NT comes with the right to practice their culture and teach future generations the laws that "set out how people care for ... and protect country and sacred sites by excluding others" (YMAC1). The cultural discourse underlines how important looking after Country is to Aboriginals (ABC31,32,38,41,42,52, AIATSIS, NIT2,7,8, YMAC). "It's our mother. We look after the land and it looks after us", a Kariyarra elder stated (YMAC1).

Secondly, the motivation for lengthy and distressing legal battles to obtain NT rights (ABC41,42, CourtOfAu, NIT2, YMAC1) is fuelled by hopes of better lives for current and future generations through land royalties and education (ABC12,41,42, NIT2, YMAC). "You do ask, will it be worth it? But I am hopeful to see young kids making up their minds and going on to become a doctor or a pilot", a Yindjibarndi elder said (ABC41). The Chief of Yindjibarndi Aboriginal Corporation similarly stated, "I still have a generation of Yindjibarndi people coming up, hopefully for the next 70,000 years, and I need to look after them" (ABC41). NIT also reports that monetary compensation from mining "will help overcome the serious disadvantage First Peoples face in access to housing, health, education and other services" (NIT1). These future imaginaries strongly feature the narrative genre.

Thirdly, I observed that for the (Pilbara) Indigenous groups material livelihood values have taken priority over indigeneity. Beyond monetary compensations, Indigenous people want to focus NT negotiations on capacity development and employment (ABC44, MT2, NIT1,9,11,17, YMAC1).

"We don't want a handout – we want a proper job, we want proper independence, and we want to mine the country.... No more of this royalties. Our people are dying through that royalties system" - Nyamal elder (ABC44)

In fact, while mining might seem contrasting to traditional Indigenous values of looking after Country, "the mining industry, as a proportion of its workforce, employs First Nations peoples at a higher rate than all other industries" (AuGov2). One explanation is that remote mining regions typically have higher Aboriginal populations. In Pilbara, mining for instance constitutes 86.9% of the production output (OECD, 2023). Under limited options for employment, working in the mining companies is needed to survive.

The last observation highlights the tipping point where indigeneity and care for Country become more important than material livelihoods, and how this mobilised Aboriginals to protest for more inclusion. Despite their willingness to mine the country, Indigenous groups feel that their interests are not protected (ABC31,32,52, AIATSIS, Conversation, NIT7, YMAC1,2).

"One of the highest priorities of Traditional Owners is to protect important heritage sites from damage and destruction by development, particularly mining. Unfortunately, neither the Western Australian Aboriginal Heritage Act (1972) nor the NTA provides adequate protection" - YMAC (YMAC1)

For Aboriginals, ACH is priceless as it provides them their connection to their past and present culture (ABC31,52). To illustrate, following the destruction of the 46.000-year-old ACH site Juukan Gorge, the PKKP Aboriginal Corporation director said, "No amount of money will ever replace that, I'd rather have the rock shelter back" (ABC52). This pricelessness is "missing in cultural and heritage discourse" (AIATSIS), leading to mining policies and development practices where "economic benefits can be deemed to be more important than heritage values" (AIATSIS).

The 2023 AHA, introduced after the Juukan Gorge incident, is feared to perpetuate the prioritisation of development over ACH protection (ABC31,38,52, YMAC2). This compromise of Care for Country has prompted Indigenous groups to mobilise an emancipation discourse, advocating for a greater role in mining processes to mitigate the impact on ACH (ABC11,38,52 NIT8, YMAC1,2) – transforming their voices into a counter discourse.

"We're not saying no to mining. We need to make sure the legislation is done right, that we're at the forefront with our heritage and culture.... This [new] bill will favor the industry and government, it doesn't favour us" - Chairperson of the Kimberley Land Council (ABC31)

"We live in the Pilbara, we breathe the air, and we see what's going around. We see what is being destroyed. But we are not saying no to mining. We can't say no... but come to the party with us, listen to us" - Nyamal elder (ABC38)

5.1.5 Criticism

Table 7. The criticism theme is constituted by the counter discourse.

Discourse	Discourse type/genre	Aim
Counter	Green extractivism	Seeing the ground merely as a location to mine and framing
discourse	discourse	unsustainable extracting methods as green merely through
		lithium's use in the energy transition.

The texts also presented a counter discourse that scrutinises lithium's green character. Four prevalent findings are highlighted here.

First, the counter discourse highlights a variety of environmental and social concerns (ABC25,26,37, Age7, BBC1, NIT1, WAT). One pastoralist for instance exclaimed that "industry needs to select areas

that are sustainable", referring to his swampy spring land as "no place for mines" (ABC37), and an environmentalist stated, "there was no climate solution to be found in the clearing of native forests or depletion of critical water sources" (WAT). Similarly, a local camp manager was shocked over exploration drilling near Litchfield National Park.

"The whole point of renewable energy is supposed to be to protect the environment, and if we're damaging the environment to protect the environment, that doesn't really make sense to me" - Local camp manager (ABC26)

Potential changes in land cover and air, water, and dust pollution (IEA, BBC1) have already been reported in Australia (ABC25,27) – leaving locals afraid it "will make that land unusable for any other use in the future" (ABC25), and farmers concerned it will "disrupt our business" (ABC37).

Secondly, there is also scepticism towards the carbon intensity and waste of lithium mining (ABC14,49 Age4,5,7,8, BBC1, IEA). While vital for the ET, lithium mining is highly energy intensive (AuGov1). "Mining uses 3 per cent of the world's electricity – half of that to break up rocks" (ABC14), leading to estimations that "hard-rock lithium mining will be responsible for 10 million tonnes of CO2 emissions by 2030" (BBC1). Stressing that "emissions along the mineral supply chain do not negate the clear climate advantages [of CETs]" (IEA), texts emphasise the need for decarbonised mining practices (e.g., ABC12,14, BBC2, Age5,7). The large volumes of waste from WA's lithium production are also "a long-running challenge" for the industry (ABC49), raising environmental and reputational concerns for communities near tailing storage facilities (ABC49, Age4,8).

The third observation is how the interlinkages between mining and fighting climate change are recognised by critics. Contrary to the climate crisis theme, however, the criticism theme follows it up by pointing out the impacts (ABC26,27,37, Age7, BBC1, CCWA, WAT). One environmentalist has dubbed it a "green spin' and says the mining industry is using renewable energy as a cover" (ABC27).

"We know we need to decarbonise as soon as possible and critical minerals like lithium and a whole heap of others are part of that pathway. But we also know the mining of those minerals is environmentally destructive" - Executive Director of the CCWA (BBC1)

"We have to decide as a country, how valuable is a place and is it worth risking for mining" - Economic geologist (ABC27)

This illustrates a trade-off between climate change mitigation and local habitats. CCWA believes "conservation, biodiversity and cultural values must take priority in rush for critical minerals" (CCWA).

However, statements like "up to 80 per cent of the Australian continent remains underexplored, with significant potential to discover new deposits" (AuGov1) suggest that the reality will likely be opposite.

Indeed, the fourth observation is the tendency for the government to privilege mining over other land interests, marginalising both Indigenous peoples and other members of society. For instance, WA's pro-development laws have for the past century allowed subsurface explorations of over 30m without requiring landowner consent or notification (ABC30, Age6,7, WAT). The current "mining boom land grab" has landowners suspecting mineral prospectors of "abusing the clause" by unnecessarily claiming the minerals are subsurface (WAT). One local protested that "the act was written 100 years ago. It's all about guys with a donkey and a shovel and a bucket. The idea that mining more than 30 meters below the surface has no effect on the surface... what a joke" (Age7). Nevertheless, the WA Mining Minster stated that exploration permits were "just that" and didn't mean mining would be approved (WAT). This signals that the Government does not take landholders concerns seriously, minimalising their environmental concerns by naming it *just* explorations.

5.2 Social practice

In section 5.1, I identified three primary justifications for lithium mining (economic benefits, fighting climate change and Australia's 'duty'). I also reported that support from Indigenous and wider communities is contingent on better industry management to address lithium's challenges. In this section I answer RQ2 by drawing on social constructionism and RT to discusses the interaction of discourses with social structures and how this influences regulation and vice versa. First, it lists three synergies, followed by two frictions and the regulatory responses. Lastly, I discuss the outcome of the regulation.





5.2.1 Synergies

Sustainable operations

The cultural shift towards sustainability strengthens lithium discourses in two keyways. First, international legal changes, such as the mainstreaming of Environmental, Social and Governance (ESG) standards, and US and EU regulations on supply chain transparency and ethics, have directed Australian miners towards decarbonised and ethical operations (ABC12,14,46, Age5, IEA, PM3). Here, international trade relations shaped the legal discourse, resulting in more sustainable operations. The change in social practice was thereafter promoted through the corporate advertising, emancipation, and relational discourses.

Second, the "ironic" need for more mines to save the planet redrew "old battlelines between environmentalists and miners" (ABC27) and created space for ecological, social, domination, and GE discourses in the development discourse. Inevitably, this altered the hegemonic understanding of what good business behaviour constitutes. Additionally, growing environmental awareness has investors and the public reshaping social norms and scrutinising ESG performance (ABC12, Age5,7, AuGov3, Conversation, IEA, NIT13, PM3,4), indicating that the social discourse is driving green decisions.

"The bad old days of the wild west of biodiversity being a thing that people don't care about are over, and if you want to be a profitable, sustainable industry when it comes to mining in Australia, you need to do things properly" – Conservation scientist (ABC26)

While these interactions portray an industry striving for sustainability, in reality, their primary motivation is merely to meet societal expectations to maintain their social license to operate. PM, for instance, advertises their commitment to ESG management (PM5), but in their listed consequences of ineffective ESG measures – "reduced investments, delays in approvals, higher obligations, increased insurance costs, damaged reputation and impacts to talent attraction and retention" (PM3)– they fail to include actual social and environmental impacts. Moreover, PM states responsible and ethical business is "central to us maintaining our social licence to operate and creating value for us, our shareholders and the communities in which we operate" (PM2). Such framing underscores how ethical operations are driven more by dominant societal norms rather than intrinsic motivations to limit harms, revealing the power of investors and wider society over corporate behaviour.

Indigenous relations

Due to interactions between (the lack of) regulatory ACH protection and mining practices, Indigenous relations with the mining industry have significantly improved over the years. In 1993, following the

NTA, the media produced and distributed a discourse of fear over Indigenous land claims, which fuelled miners' "anxieties that their interests in land and property were under threat" (YMAC1). This led to adversarial relations, with "land users reluctant to negotiate fair compensation for the impairment of native title rights and often looking for shortcuts" (YMAC1). However, overtime this discourse was mediated by the social structures and Indigenous values of material livelihoods and care for Country. Firstly, the miners realised that NTA does not give substantial jurisdiction back to the communities (Strakosch, 2019), with one of the furthest stretching rights being merely a 'Right to Negotiate' (YMAC1). Secondly, Indigenous peoples were eager to negotiate, as it enhanced their prospects and often offered better ACH protection than the weak AHA (ABC36, Conversation, NIT7,8, YMAC1). Consequently, the mining industry no longer saw NT as a threat, but as security for their business (YMAC1, ABC36, NIT8). The lack of good regulation to protect ACH thus influenced the social practice, eventually shaping the development, emancipation, and relational discourses.

In fact, due to growing scrutiny on the social impacts of mining, "for mining, the "s" in ESG increasingly includes a strong focus on working with First Nations communities" (NIT13). PM therefore repeatedly emphasises their relationship with the Nyamal Peoples, engaging them through development and employment opportunities (ABC20,34, MT2, NAIF, PM1,2,3,4), and "voluntarily" (PM1) adjusting its conventional bulk mining operations to protect adjacent traditional grinding patches (Sterba, 2019; Tabelin et al., 2021). Active monitoring by Nyamal members showcases how "effective engagement can allow mining to successfully coexist with Aboriginal heritage preservation and protection" (PM1). Here, the dialectical role becomes prevalent in how domination, emancipation, social, and GE discourses have shaped societal sensitivity towards Indigenous struggles. This influenced company behaviour, which in turn shaped the corporate advertising, developmental, emancipation and relational discourses.

Economic ideologies

The overall welfare theme strongly reinforces and is reinforced by society's economic ideologies. Specifically, the economic growth model and consumer society. Firstly, WA's ambitions for the lithium industry stem from decarbonisation trends threatening its fossil fuel industry (ABC2, AM3) (Menck, 2022). This loss of income from traditional mining would be detrimental to Australia's economy and shaped the strategic discourse, in turn reshaping the model of development from fossil fuel to lithium production, allowing Australia to uphold its economic growth and "remain[s] a resource and energy powerhouse" (McKinsey). Secondly, the consumer demand for CET has a direct dialectical relationship with the commodification of lithium for EVs. A third synergy takes place between the promotional and institutional discourses with Australia's established mining industry – boasting WA's investment attractiveness. Mobilising the legal discourse to solidify and promote its frequently leveraged reputation (ABC19, AM1, AuGov1,3, McKinsey, PM1, TWA, WAGov1,2,4,5), WA argues that "certifying our [ESG] minerals could differentiate Western Australian producers as suppliers of choice in a competitive global environment" (WAGov4). Statements like these, as well as direct statements such as, "the WA government will promote WA as a destination for investment" (WAGov2), highlight the dialectical relationship between the physical mining industry and expertise versus discourses. Specifically, how the institutional discourse and narrative genre facilitate (the image of) an investment worthy mining industry – and how in turn the industry is leveraged through the institutional, corporate advertising and reputational discourses.

5.2.2 Colonialism

Friction

Two important frictions take place within the development discourse, formed by Australia's internal and settler colonial structures.

Firstly, while the lithium industry comes with the promise of regional development for WA, this development predominantly falls to the mining sector itself, ignoring other industries and social needs (ABC33,42) (AMCA, 2022; OECD, 2023). This can be explained through Australia's internal colonialism, which portrays WA as a "mining state" (Menck, 2022). The image of WA as a place for extraction is rooted in the history of the towns, which were oftentimes built by mining companies. Relying on mining companies to invest in the towns, the government merely provided schools, medical facilities, and police services (Menck, 2022). This has led to a remaining lack of responsibility felt by the government regarding the communities' development. For example, Pilbara towns Roebourne and Karratha contributed significantly to two mining booms (ABC33,42). Yet, the "money going into Pilbara communities doesn't match the wealth created" (ABC33). Government services are especially lacking, causing perceived neglection and perpetuating the "notion of a backwater, insignificant regional centre". The article also insinuates that mining companies are still the main investors in e.g., community infrastructure (ABC33). Contrastingly, investments made by the government target providing "certainty for mining projects in the area" (YMAC1).

While no longer physically isolated from the populous eastern states due to advancements in interstate connectivity, the isolation of WA has become a social construct (Menck, 2022). In fact, a secession discourse –based on a 1993 referendum in which WA voted in favour of secession– is still

frequently mobilised in politics and society to support the portrayal of a "peripheral" (McDonell et al., 2024), forgotten, under-recognised and marginalised state (McDonell et al., 2024; Menck, 2022).

"These people [former Prime Minister Scott Morrison and Nationals Senator Bridget McKenzie] don't respect Western Australians. They fly in, fly out in their private jets, and have no regard for the true hard work and commitment required in this state to bring the resources economy to bear for the greater good of the whole Australian community" – Federal Resources Minister (ABC2)

The second clash in the development discourse stems from limits to Indigenous people's willingness to allow development on their country. While Indigenous communities welcome the "lasting opportunities" from NT agreements (MT2), principles of Care for Country and Culture remain the priority (YMAC1,2).

"Today, we are still fighting to be self-governed Aboriginal people and maintain our land and areas. We don't want people telling us what to do. We have a right to decide how we manage our land and to make our own decisions. Looking to the future, I want the next generation to get more education, so that they can be independent. I want them to get training and a job. But most importantly, I want them to have native title rights, to learn their language and look after our land. Looking after our culture: that's the first thing on the agenda" – Nyamal elder (YMAC1)

Despite claiming good Indigenous relations through relational and corporate advertising discourses, capital accumulation often still prevails over community relations for mining companies. For example, Rio Tinto was "considered an industry leader" in Indigenous relations (ABC32), yet still prioritised profits over heritage protection by destroying Juukan Gorge. Indeed, "there can be a natural tension between the protection of Indigenous culture and heritage and the undertaking of development, particularly mining" (AIATSIS), with the AHA inadequately protecting ACH (ABC31,32,36,38,55). In fact, the AHA empowers mining companies (ABC32, AIATSIS, Conversation, YMAC1). S18, for instance, "fundamentally protect[s] large business and others when they believe there's a site to be destroyed in the process of their development" (ABC32). Moreover, Altura's mining proposal demonstrates the entitlement felt to destroy ACH sites if necessary for development, stating "no sites requiring Section 18 approval were identified" (Altura2). This entitlement stems from application approvals being near guaranteed, with none of the 463 submitted before July 2021 being denied (AIATSIS).

Miner Andrew Forrest poses a second example. While publicly regarded an avid campaigner against Indigenous disadvantage, Forest offered subpar land compensations to TO (ABC41,42,44,48,50) and

perpetuated the Indigenous inadequacy discourse by telling his shareholders that the community had alcohol and drug problems, making it "not a community I'm going to empower with tens of millions of your cash" (ABC41). Moreover, Forrest fought the Yindjibarndi's exclusive land rights, as it has "implications for a range of industries including future mining, agriculture and tourism development" (ABC41) – drawing on the terra nullius doctrine that sees "empty" land as land to be developed and wasted if given to Indigenous peoples. These last two examples highlight how the development discourse interacts with the settler colonial structures to uphold extractive relationships to the land. Ultimately strengthening the domination and development discourses.

Regulatory measures

Recognising that internal colonial relations were causing dissatisfaction and frictions that could disturb WA's lithium industry and thereby Australia's ambitions of becoming a RE superpower, Prime Minister Anthony Albenese is attempting to overturn the perception of WA as a forgotten state. Physically, by visiting WA six times in five months (AuGov3), and verbally, by announcing that WA's future was his priority – prising the state not just for its natural resources but also by calling the human resources "the biggest advantages" (AuGov3). Concretising this support, Albenese also put in pace strategic and fiscal policies to facilitate the economic development of the historically underserved state (ABC4, AuGov1,3, WAGov2).

Secondly, there has been a regulatory attempt at mitigating the settler colonial structures. Recognising that to favourably position itself in the geopolitical spheres and draw in investment (ABC10, Age2, AuPaydirt4, AM1, Guardian2, TWA), better Indigenous management is crucial. Despite their general lack of willingness to reform laws that could limit miners (Age6,7, AuGov2), the government thus had to amend the AHA and reconstruct the legal discourse to better protect ACH (AuGov2). Additionally, realising that "valuing First Nations land and water rights, cultural heritage and genuine engagement with First Nations communities is essential to Australia's social and economic success" (AuGov1), the government altered its strategic discourse by making collaboration with Indigenous peoples one of the six focus areas in the CMS (AuGov1). Both the legal and strategic discourses were shaped by increasing societal scrutiny on the government's Indigenous engagement and ACH protection, and the resulting regulation that changed the social practice thereby shaped the promotional, legal, strategic, relational, and emancipation discourses.

5.2.3 Balancing

Friction

One prevalent friction arises between the economic and strategic discourses versus the Indigenous and counter discourses. While the amended AHA and promise of updated environmental regulations pleased those with increased environmental and Indigenous awareness –shaped by Indigenous and counter discourses– it concerned the mining industry. Prominent mining industry leaders were demanding streamlined regulatory approvals and stable policy and fiscal environments (ABC5,10,24, AuGov1,2, AuPaydirt4, Conversation, Guardian2, TWA, Age2, NIT1), and feared extra regulation could "constrain the mining industry and give anti-mining activists too much power" (AuGov2).

"There is a great danger these proposed [federal ACH] laws and regulations will be used as deliberate weapons against the resources sector, produce longer approval lead times, drive up project approval costs, provide further opportunity for activist activity, and ultimately undermine job opportunities and other economic benefits for Indigenous people" – WA Senator and former Member of Parliament (AuGov2)

Intriguingly mobilising the domination discourse to highlight why more protection should not be given to ACH.

These examples insinuate a trade-off for the government between facilitating mining versus improving their ACH management to attract financing. To appease both sides, the government seeks to balance "fast, efficient and certain federal environmental approval processes... [with] rigorous environmental standards" (AuGov1). In fact, the government continuously leaves the door open for their commercial interests, similarly aiming to balance the "importance of cultural heritage to First Nations peoples and all Australians" with the "need for certainty in development considerations for businesses and industry" (AuGov2, also ABC51, TWA, WAT). This balancing is frowned upon by "Labor's left-wing members" (Age2) and especially led to concerns in Indigenous communities (AIATSIS, NIT1).

Firstly, Indigenous peoples were concerned about balancing as their interests are often not recognised, even under the new AHA.

"Impoverished understandings of Indigenous culture and heritage are reflected in limited opportunities for the full and accurate representation of appropriate Indigenous perspective to inform laws, policies and processes" - AIATSIS (AIATSIS)

While the government promised to co-design the new AHA with the Indigenous peoples (AuGov2), the process fell short (ABC31,32,36,38,51,52,55,56, NIT10). Leading to frustrations amongst the communities, as "Aboriginal people have not been listened to, not been respected and our culture has been left vulnerable to destruction" (ABC55) – partly through exclusion from the legal discourse.

"To get through to Aboriginal community, we need to have Aboriginal people spreading the information in an Aboriginal way. It's no use speaking to us in a different language that we don't understand ... if they can't speak to us in plain, simple English, we're in the dark" – Malgana elder (ABC56)

Secondly, there is concern about the final say over mining projects on NT land remaining with the Minister for Aboriginal Affairs under the new AHA (ABC31,36, AuGov2). As such, if the balance favours the other way, Aboriginals can't stop the mining.

"We have a longstanding pattern of government acting in the interests of mining and development to the detriment of people and cultural heritage. We don't believe this current bill will change that shocking past" – Indigenous human rights lawyer (ABC36)

"They've preserved the rights of the settler state to destroy Aboriginal sites without involvement and capacity of Aboriginal people to say no" – Ngalia man (ABC55)

Both concerns show how the new regulation perpetuated the exclusion of indigenous perspectives from the legal and development discourses, reinforcing the domination discourse.

Regulatory measures

To secure the wealth promised by the lithium industry, the WA government has been particularly forthcoming in its engagement with the private sector (AuPaydirt4,6).

"Governments and mining companies can often be at loggerheads, usually concerning tax and royalty rates and/or approvals, however, in WA at the moment there appears to be a harmonious relationship in the battery minerals space" (AuPaydirt4)

Pledges of support include Prime Minister Albanese's, "my government is committed to transforming Australia into a renewable energy superpower and harnessing the critical minerals we have at home is crucial to achieving this" (Age1), and Minister King's "production credits or some other kind of tax treatment remains on the table as we seek to further develop this industry" (Age2), but are also manifested through strategic and financial support to mining companies or research centres (ABC2,4,10,13,22,34,35,39,43 AuGov1,3, AuPaydirt2,6, AM1,3, Amec, CCWA, MW, NAIF, PM3, TWA, WAGov2,4,8). The regulation thereby influences the promotional discourse, and especially the reputational discourse and narrative genre, by enforcing and promoting Australia's established and well-funded mining industry. Additionally, the 2023 AHA was rescinded by the WA Premier after just five weeks (Guardian3,4, NIT13), stating "we got the balance wrong".

"Put simply, the laws went too far, were too prescriptive, too complicated, and placed unnecessary burdens on everyday Western Australian property owners" - WA Premier (Guardian4)

In its place, the 1972 AHA was reinstated, and amended to include the right for TO to appeal s18 approvals and disclosure requirements for new information about concerned sites (Guardian4). Despite general Indigenous dissatisfaction with the 2023 AHA, the PKKP Land and Heritage manager claimed, "reverting back to the culturally inappropriate 1972 legislation is among the worst decisions for Aboriginal cultural heritage protection this country has seen" (Guardian3). By stating the laws went too far, the government demonstrated that if the balance tips to far to the Indigenous side and disadvantages development, they will adjust the regulations to facilitate commercial interests again – even if it means reverting to disadvantaging Aboriginal peoples. The regulatory changes thereby construct the economic and institutional discourses and solidify the domination discourses.

5.2.4 Outcome of regulation

The RT posits that frictions within the accumulation regime are mitigated by regulatory mechanisms that stabilise the capitalist economy's model of development (Harber, 2013; Heino, 2022). In this thesis, regulation stands in dialectical relationship with various discourses, like the institutional, domination, promotional, and developmental discourses. Through three examples of capitalist value-based regulation, I delineate how the government upholds the mining accumulation regime while marginalising indigenous peoples through reinforcing the domination discourse. As the frictions mostly pertained Indigenous struggles, this section discusses RT in relation to Aboriginals.

The first example is how the 2023 AHA –introduced in response to WA's failing ACH management– institutionalised and confined the friction by constructing consent. Despite Indigenous peoples protesting the remaining lack of ability to say no under the new AHA (ABC31,36,55,56, NIT10), the government stated a veto was "not workable" (ABC56) as the legislation aimed to facilitate consultation and deal making, and a veto could discourage genuine negotiation to reach an agreement (ABC36). Regarding the protests, the WA Aboriginal Affairs Minister stated, "we really do need to move on; what was legislated for is a vast improvement, it is the gold standard" (ABC52). By silencing the protesters and praising the regulatory changes, the Minister presented the new AHA as a sign that he listened to their concerns and made significant improvements to ACH protection. This confined the

frictions while making sure the new act did not restrain the mining industry, consequently stabilising the accumulation regime.

Secondly, before rescinding the 2023 AHA, its effect on the accumulation regime was regulated through balancing arguments that ultimately prevented the Aboriginals from getting too much legislative power over those wanting to develop on their lands.

"What is key though, is to ensure that we have a set of regulations that makes the Act operational and provides for Aboriginal people, but in a balanced manner. We live in a vast state of Western Australia where there is a heavy reliance on the resource industry to provide economic and employment opportunities for WA, including Aboriginal people" – WA's Aboriginal Affairs Minister (ABC51).

However, AIATSIS warns "Indigenous intangible and tangible cultural heritage is poorly recognised in state-based policy and legal frameworks that purportedly aim to balance heritage recognition and development activity" (AIATSIS). Indeed, as shown by the grounds for rescinding the new AHA, the balance disproportionally favoured stabilisation of the accumulation regime over heritage values.

Thirdly, despite improvements in Australia's focus on Indigenous peoples in policies like the CMS – with the previous CMS not even mentioning the words "Indigenous" or "Aboriginal" once (NIT1)– regulatory changes were motivated more by restoring WA's investment attractiveness than genuine Indigenous welfare concerns. This was evident in the motivation behind the judicial inquiry into the destruction of Juukan Gorge being "protecting the international reputation of Australia's mining industry" (AuGov2). Indeed, after two centuries of oppression and the government "not effectively monitor[ing] or enforc[ing] compliance with conditions on mines under the Aboriginal Heritage Act" (ABC32), the recent "pursuing [of] an ambitious reform agenda to strengthen its cultural heritage and environmental protection legislation" (AuGov1) conveniently coincides with the desire to become a RE superpower in a world that demands increasingly more ethical behaviour.

Problematically, this suggests that ethical regulations towards Indigenous peoples are conditional on it being economically and reputationally interesting to the accumulation regime. Given how the first arguments showed that ultimately profit accumulation comes first for the Australian government, the regulations do not adequality secure Indigenous interests. For Indigenous peoples a tipping point has been reached. "Yes, the vast emphasis is on the importance of the economy, but where are our lives in this. We are being destroyed and we are standing in the Yule River today to say, 'Enough is enough'" – Kariyarra elder (ABC38)

Overall, the regulatory responses aimed at stabilising the accumulation regime have thus been shortsighted, addressing symptoms rather than the root causes of the frictions. Thereby, it missed the opportunity to revise the power imbalances in the industry and foster mutually beneficial relationships between mining companies and Indigenous peoples based on public welfare rather than corporate gain. Consequently, lithium mining has entrenched itself as another form of capitalist extractivism, prioritising economic interests over Indigenous concerns.

To steer the growing lithium industry away from this unsustainable pathway, regulatory responses must include representation of environmental and social interests, particularly Indigenous interests. This necessitates a departure from dominant development ideologies and working with Indigenous communities, as they so clearly desire, to develop the lithium mining industry.

5.3 Relevance for Sustainability Science

This thesis understands the ET as a multi-scale and complex socio-ecological interaction. Analysing humanity's technological response to the environmental problem of climate change, I show how global decarbonisation goals can lead to place-based social and environmental issues. Through conducting a CDA and analysing various (academic) domains within the wider social context in which the lithium discourse find itself, this thesis conforms with Sustainability Science principles such as inter-spatiality, interdisciplinarity (Kates et al., 2001).

Introducing Australia's settler colonial context as a new research focus, I demonstrate how hegemonic discourses perpetuate Indigenous marginalisation and offers timely insights to ensure a just rather than merely green ET– contributing to indigenous inclusion and justice-focused debates and journals. My research thereby especially aligns with Critical Sustainability Science, connecting GE to broader societal institutions such as capitalism and power relations, and normatively challenging the political paradigms and structures (Jerneck et al., 2011).

5.4 Limitations

This research acknowledges several limitations. Firstly, despite in-depth research into CDA and the flexible nature of the approach, my limited linguistic knowledge may have led to oversights or oversimplifications and thereby incomplete interpretations.

Secondly, employing CDA inherently involves researcher subjectivity. In line with social constructionism, I recognise that my socially constructed knowledge might have influenced the selection of codes used as well as the interpretation of texts. Therefore, I actively sought to identify and address the assumptions shaped by my identity, personal experiences and biases. This occurred through an ongoing process of reflexivity and critical reviewing of my positionality to mitigate its influence on my interpretations and conclusions. Despite taking a normative stance, I thus acknowledge that I do not speak an objective truth.

Lastly, while data was gathered until the redundancy level was reached, a more specific focus on government documents or other mining companies than PM might have yielded more documents. The unequal sample sizes also limited comparability of interdiscursivity between the actors, affecting the identification of included and excluded voices within actor groups. Moreover, given the time intensity of CDA and scope limitations, the research could have been more focused if a single actor group was selected. However, this would have changed the objective of the research from the public discourse to an actor-specific discourse on lithium.

6 Conclusion

This thesis examines the underlying justifications for lithium mining in Western Australia. By analysing how discourses interact with social structures and regulatory responses to frictions, I reveal how the lithium industry perpetuates Australia's capitalist extractivist development model.

Through CDA, three key justifications for lithium mining were identified: *economic benefits, Australia's perceived duty,* and *lithium's role in combating climate change*. These were mostly driven by economic interests. The discursive representation of lithium mining is also shaped by the *Indigenous experiences* and *criticism* themes which raise social and environmental concerns, challenging the justifications.

Drawing on social constructionism and regulation theory, this thesis found three synergies and two frictions in discourse-social structure-regulation interactions, with frictions primarily revolving around Indigenous marginalisation. In addressing these frictions, governmental regulatory responses, influenced by economic and reputational motives, often prioritise stabilising the accumulation regime over ensuring lasting Indigenous engagement.

These findings are important as given the traditional mining sector's historical unsustainability, as well as WA's entrenched extractivist land relations and settler colonial structures, lithium mining risks inheriting the sector's unsustainable practices, values, and relations. Successful ACH management has so far stemmed from industry goodwill and the power of societal scrutiny over corporate behaviour. While this underscores the need for continuous public engagement and oversight to hold actors accountable for their actions, effective regulation is crucial for providing more security.

Achieving a just transition rather than merely a green one requires a departure from dominant development philosophies and building genuine and collaborative interactions with Indigenous communities. This study underscores the need for regulation that truly balances the needs of First Nations People with the wider Australian society and allows Aboriginals to have a say in matters pertaining ACH.

Future research could include interviewing Indigenous communities to understand the balance between material livelihoods and indigeneity, as well as examining differences in Indigenous attitudes towards traditional versus lithium mining. Additionally, I discovered that, while popular in the academic debate, degrowth is missing from the public discourse on lithium. Future research could explore its confinement to the academic order, and how its notions could be introduced to the public discourse on lithium.

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Appendices

Appendix 1: Code book

Code	Description	Includes/excludes
Anti-energy transition and climate denial	Denying the need to transition to renewable energy or other forms of climate denials	
Australian nationalism/duty	The emphasis on and positioning of (Western) Australia as a global leader, trustworthy, important, capable, self-reliant producer of lithium/renewable energy. Painting the picture of them stepping up and using the resources they have.	Includes geopolitics, Australia's duty, supply chain positioning.
Clean and renewable energy technologies	References to the application of lithium for clean and/or renewable energy technologies that power the energy transition.	Includes EVs. Does not include mentions of climate change or rising demand.
Climate change mitigation and urgency	Referencing to the (urgent) need to decarbonise and tackle climate change and net-zero targets, for the sake of the climate and the world.	
Company values	References to the values held by the company.	
Contestation and disturbance	References to conflicting standpoints, avoidance of taking responsibility (finger pointing the blame), disturbance to current activities on land	Green land grabs
Demand for clean energy tech	Specific references to growing markets and demand driving the increase in clean energy tech.	Must include demand reference.
Economic value	Framing lithium exploration in terms of the economic value and commercial opportunities it will bring.	Includes mentions of the mining "boom".
Employment	Specific statements referring to jobs created by lithium mining.	
Existing infrastructure and knowledge	Refers to the ability of drawing from/making use of the physical infrastructure, systems and networks, technical know-how, and human capital already in place for traditional mining.	
Fast track	Mentions of the need for or occurrence of fast-tracking of proposals and approvals.	
First nations fight for recognition and opportunities	Talk of fighting for (development) opportunities, sovereignty, agency, land rights, UN Human Rights for Indigenous Peoples, treaties, empowerment of indigenous peoples.	
First nations culture and history	Mentions of Aboriginal cultural processes, believes, traditions, links and values.	
First nations oppression	Mentions of systematic inequality between First Nations people and settler Australians and the continuing and historical assimilation of the Aboriginal culture and or destructions of (connections to) land and cultural heritage.	Must be explicitly pointing to inequality upheld by institutions etc, if it is talking about (the outcome, e.g.) an inequality of income that is not because of a direct rule but of lack of education, it goes under "first nations struggles".
First nations granted recognition	Positive references to the Traditional Owners on the land on which is mined, sovereignty, recognising their ancient land rights, their culture or connections to land and cultural heritage.	
First nations struggles	References to the daily struggles that Indigenous Australians are facing, such as health, education, and housing.	The actual symptoms of vears of oppression, or

		other struggles that Indigenous Peoples face.
Future imaginaries	Talk of a future vision for the world in terms of energy, lithium, industry, the country, etc.	
Government support	Monetary, strategic, physical and/or verbal support of (exploration for) lithium mining or supporting initiatives given by governmental actors	Excluding legal (that's regulation)
Greenwashing	Hiding behind green claims, misleading comments, or even misleading actions. E.g., saying you collaborate with Indigenous Peoples but actually manipulate them.	
Limiting of mining impact	Mentions of actions, rules, processes, or dialogues held to limit the impact of mining on the environment.	
Pro-development	Clear examples of when the commercial development of a location is preferred over the pastoralist or indigenous use cases of the land.	
Promises	Promises made in many different ways, including promises that were once made and broken (e.g. delivering jobs to Aboriginals, but them not getting any employment at all, or commitment to programmes that weren't followed through).	
Reflective/critical of	Highlighting the potential environmental effects of lithium	
green extractivism	mining, describing counter narratives.	
Regional development	References to lithium mining contributing to/providing opportunities and benefits for social, economic, technological, industrial, and environmental development of the region.	
Regulation	Referencing the presence of regulation and legislation on effects lithium mining processes.	Includes both regulation that increases demand, and regulation that ensures sustainable operations
Relational ties	Attempts to build, enhance, or maintain bonds or connections between different actors.	
Settler colonialism	Statements that show a way of acting or thinking reflecting oppression of Indigenous peoples.	
Social pressure	Pressures on the mining companies to get a social license to operate (social and environmental sustainability), and for governments pressured by their citizens to act sustainably.	
Sustainable operations	References to incorporating social and environmental sustainability concerns into operation processes e.g. by trying to minimise carbon emissions or waste, as well as comparisons to how they are better than fossil fuel mining and mentions of approved environmental assessments. Also includes community relations and the expecting of different treatment compared to fossil fuel mining while it's the same operations.	
Unsustainability of lithium mining	Adverse effects of lithium mining and processing on the environment and society in all life cycle stages.	

Appendix 2: Code frequency

First nations struggles	First Nations oppression	Indigenous discourse			Clean and renewable energy te	Economic value	marketisation discourse	Economic discourse
First natio	First Natio	Emancipati			hno	Dema		
ns fight for recognition a	ns granted recognition	on discourse			Employment	Regional development	Development or green grow	
	First N	Cultural d			Limiting m	Pro-devel	vth discourse	
	Regulation	Institutional discourse Legal discourse				Australian nationalism and	Narrative genre	Promotional discourse
		0				Futu		
	Government support	trategic discourse		Company values		Sustainable operations	Corporate advertising d	
Ecological discour: Climate crisis disc Climate change			Relational ties bet	Conversational disc Relational discours	Reflective or critic	Unsustalnability c	Green extractivisn	Counter discourses
· ö			twee	ours	<u>ä</u> 0	fil	n disc	

Appendix 3: Interdiscursivity

Actor groups (documents, pages)	Economic discourse	Promotional discourse	Institutional discourse	Indigenous discourse	Conversational discourse	Counter discourse	Ecological discourse
News (119,718)	95	76	67	37	31	35	20
Indigenous peoples (3,61)	3	1	3	3	3		
Mining companies (8,586)	11	11	8	7	7	4	5
Government /institutions (20, 766)	14	12	14	7	5	4	5
Independent agencies (3,302)	3	3	2		1	3	1
Total (153,2433)	126	103	94	t 54	47	46	31

Count of texts with mobilisation of the discourses.

Appendix 4: References to coded texts

Code	News article	URL
9News	Western Australian companies work to cash in on lithium boom	Link
ABC1	A renewable energy revolution is powering Australia's \$720bn mining and resources industry	Link
ABC2	Critical minerals' sector in WA's Goldfields becomes political battleground in federal election campaign	Link
ABC3	Andrew Forrest's FMG acquires Williams Advanced Engineering in shift away from diesel	Link
ABC4	Anthony Albanese announces \$2b critical minerals boost amid concern about Chinese control of sector	<u>Link</u>
ABC5	Australia is the world's leading lithium producer. Why don't we make electric vehicles	<u>Link</u>
ABC6	Calls for government support to prevent lithium battery renewable energy startups leaving Australia	<u>Link</u>
ABC7	Company eyes Australian green steel lithium battery production in the Pilbara	<u>Link</u>
ABC8	Australia's abundance of critical minerals may derail our relationship with China	<u>Link</u>
ABC9	Electric cars and renewable energy could drive new outback mining boom	Link
ABC10	Federal government urged to expand critical minerals list as clean energy transition drives global increase in demand	<u>Link</u>
	Goldfields lithium project shifted around cultural heritage sites but not all	
ABC11	traditional owners happy	<u>Link</u>
ABC12	How Australian miners have ramped up plans to cut carbon emissions ahead of COP26	<u>Link</u>
ABC13	How batteries are made and how the future of a new industry hangs in the balance	<u>Link</u>
ABC14	Lithium battery manufacturers race to develop low-emission heavy equipment for mining	<u>Link</u>
ABC15	Lithium booms shows no sign of slowing as new refinery announced for WA	<u>Link</u>
ABC16	Lithium nirvana beckons for Australian miners	Link
ABC17	Lithium to overtake fossil fuels as WA's second-most valuable resource, WA budget reveals	<u>Link</u>
ABC18	Mining boom could be on the way for Australia, with record-breaking exploration spend	Link
ABC19	Next mining boom in Australia will be driven by tech metals for renewable energy and technologies	Link
ABC20	Australia's lithium miners powering the global electric vehicle charge	<u>Link</u>
ABC22	Lithium demand predicted to almost triple leaving Western Australia well- positioned as global supplier	<u>Link</u>
ABC23	Lithium mine expansion opens as growth tipped to trump trade wars	<u>Link</u>
ABC24	Core Lithium announces suspension of mining at Finniss project near Darwin with up to 150 jobs to be lost	<u>Link</u>
ABC25	Core Lithium opens the Northern Territory's first lithium mine amid surging demand for electric vehicles	<u>Link</u>
ABC26	Lithium exploration drilling near Litchfield National Park raises sustainability questions	<u>Link</u>
ABC27	The rush to renewable energy means a new mining boom. But first Australia needs to make some tough choices	<u>Link</u>
ABC28	Will the crash in critical minerals derail the clean energy transition?	<u>Link</u>
ABC29	Albemarle scales back Kemerton lithium project expansion in latest blow to critical minerals sector	Link

ABC30	BHP tells parliamentary inquiry it was granted approval to destroy Aboriginal heritage sites in the Pilbara	<u>Link</u>
ABC31	How our laws allow the destruction of Indigenous sacred sites	Link
	Juukan Gorge won't be the last priceless record of human history to be legally	
ABC32	destroyed by mining	<u>Link</u>
	Karratha business community calls for government industry investment to improve	
ABC33	liveability	<u>Link</u>
	Lithium processing pilot plant in WA's Pilbara to 'bring benefits to community	
АВС34	traditional owners'	<u>LINK</u>
ABC35	industry	<u>Link</u>
	New Aboriginal cultural heritage laws aimed at avoiding another Juukan Gorge	
ABC36	disaster	<u>Link</u>
	NT farmers worried about the race to renewables and lithium exploration in the	
АВС37	Top End	<u>Link</u>
ABC38	Pilbara traditional owners give unanimous thumbs down to proposed heritage laws	<u>Link</u>
ABC39	WA set to take 'box seat' in booming global lithium industry with new refinery	<u>Link</u>
ABC40	Green future in focus at International Mining and Resources Conference in Sydney	Link
	Andrew 'Twiggy' Forrest's FMG in High Court native title legal battle as Roebourne	
ABC41	hit by bitter division	<u>Link</u>
	Fortescue and Andrew Forrest lose High Court appeal over exclusive native title of	
ABC42	WA's Yindjibarndi people	<u>Link</u>
	Government commits \$240 million to critical minerals projects in mission to end	
ABC43	Australia's reliance on China	<u>Link</u>
	Nyamal elder blasts mining royalty system at FMG conference hosted by Andrew	
ABC44	Forrest	<u>Link</u>
ABC45	Port Hedland proposed lithium refinery could reduce exposure to iron ore prices	<u>Link</u>
	Australian miners back ethical supply of minerals as illegal mining in Africa impacts	
ABC46	gorilla habitat	<u>Link</u>
ABC47	Conservation group helping nature reclaim WA's oldest mine site at Greenbushes	<u>Link</u>
	Fortescue helped fund Wirlu-Murra Yindjibarndi Aboriginal elders' campaign against	
ABC48	mine land owners	<u>Link</u>
	Lithium's the next big thing but proposed tailings facility at Dardanup tip faces	
ABC49	backlash from farming town	<u>LINK</u>
	Solomon Hub are cafe	Link
ABCJU	Aboriginal Affairs Minister says traditional owners 'rehashing' debate on cultural	
ABC51	heritage concerns	Link
	Juukan Gorge Traditional Owners say money can't replace site's value one year on	
ABC52	from blast	Link
	No 'green' mining boom for Australia yet despite lithium and hydrogen investment	
ABC53	surge: CBA	<u>Link</u>
	WA Aboriginal heritage law passes but concerns remain it won't prevent another	
ABC55	Juukan Gorge	<u>Link</u>
ABC56	Yamatji traditional owners frustrated over consent in draft Aboriginal Cultural Heritage bill	<u>Link</u>
AFR1	Rinehart calls for tax cuts, criticises renewables and 'evesore' solar panels	Link
AFR2	Australia can save the global lithium industry from the Chinese state	Link
Age1	Red-dirt billionaires in race for 'white gold'	Link
Ago2	Pace for critical minorals been to test government's mettle	Link
Agez	nace for critical minerals boom to test government's mettle	
Age3	We need to think beyond lithium to meet our net-zero goals	<u>Link</u>

Age4	Enormous lithium waste dump plan shows how shamefully backward we are	<u>Link</u>
Age5	'Right place, right time' for Rinehart-backed Vulcan in quest for zero carbon lithium	<u>Link</u>
Age6	'Not scaremongering': Landowners fire back over WA mine exploration secrecy	<u>Link</u>
Age7	The next mining boom? Rare earths and the rise of Australia's 'other' minerals	<u>Link</u>
Age8	Lithium giant will 'get rid of biggest headache' in controversial South West waste dump	<u>Link</u>
AIATSIS	Inquiry into the destruction of 46,000 year old caves at the Juukan Gorge in the Pilbara region of Western Australia	<u>Link</u>
Altura1	Positive results from Pilgangoora Lithium project Scoping Study	<u>Link</u>
Altura2	Pilgangoora Lithium Project Mining Proposal (ALT-HSE-MP-RPT-0060-Rev 4_Version 1)	<u>Link</u>
AM1	Australia's path to superpower status runs through mining: Treasurer addresses WMC	<u>Link</u>
AM2	Federal Ministers support Kathleen Valley funding	<u>Link</u>
AM3	Minister King at NT's Resources Week	<u>Link</u>
AMEC	EIS funding reflects strength of exploration industry	<u>Link</u>
AuGov1	Critical Minerals Strategy 2023-2030	<u>Link</u>
AuGov2	Australian Government response to the Joint Standing Committee on Northern Australia's: A Way Forward and Never Again	<u>Link</u>
AuGov3	Media conference on critical minerals, with Prime Minister Anthony Albanese and Member for Swan Zaneta Mascarenhas	<u>Link</u>
AuPaydirt1	Pilbara green lights lithium project	<u>Link</u>
AuPaydirt2	Australian lithium's global presence	<u>Link</u>
AuPaydirt3	Bigger Pilgangoora likely	<u>Link</u>
AuPaydirt4	West is best in lithium class	<u>Link</u>
AuPaydirt5	Lithium proves catalyst for electrified diggers	<u>Link</u>
AuPaydirt6	Unstoppable Pilbara receives government boost	<u>Link</u>
BBC1	How Australia became the world's greatest lithium supplier	Link
BBC2	Protecting fragile ecosystems from lithium mining	<u>Link</u>
CCWA	'Conservation, biodiversity and cultural values' must take priority in rush for critical minerals	<u>Link</u>
Conversation	Fixing Australia's shocking record of Indigenous heritage destruction- Juukan inquiry offers a way forward	<u>Link</u>
CourtOfAu	Eaton on behalf of the Nyamal People #10 v State of Western Australia [2019] FCA 1571 (24 September 2019)	<u>Link</u>
Guardian1	Australian lithium and nickel miners to ask for tax credits and emergency funds to weather global price crunch	<u>Link</u>
Guardian2	Unlikely heroes: how lithium mining could change the Pilbara for the better	<u>Link</u>
Guardian3	Divisive, confusing and stressful: Western Australia's Aboriginal cultural heritage laws in a mess	<u>Link</u>
Guardian4	WA premier Roger Cook axes Aboriginal cultural heritage laws after outcry by landholders	<u>Link</u>
IEA	The Role of Critical Minerals in Clean Energy Transitions	Link
Lowy	Lithium, lightest metal on earth, carries heavy geopolitical weight	<u>Link</u>
McKinsey	Australia's potential in the lithium market	<u>Link</u>
MT1	Australia: Revenue from critical minerals to match coal by 2028	Link
MT2	Pilbara Minerals reaches deal with Njamal People to develop Pilgangoora mine	<u>Link</u>

MW	WA's EIS opens again	<u>Link</u>
NAIF	Pilbara Minerals P680 Expansion	<u>Link</u>
NIT1	The practical effect of an Indigenous Voice: The case of 'Critical Minerals'	Link
NIT2	Traditional Owners open path for Goldfields lithium, nickel project	Link
NIT3	Environmental rule changes also on horizon for critical minerals sector	<u>Link</u>
NIT4	2023 AMEC awards recognise First Nations influence	<u>Link</u>
NIT5	Why this WA lithium miner says First Nations ties are more important than its Tesla offtake deal	<u>Link</u>
NIT6	First Nations engagement guide launched for renewable energy sector	<u>Link</u>
NIT7	Transition to greener energy a fresh opportunity for First Nations businesses	<u>Link</u>
NIT8	Nyamal Aboriginal Corporation takes lead in heritage management	<u>Link</u>
NIT9	Nyamal Traditional Owners land \$18 million equipment contract with Fortescue	Link
NIT10	Perth protests Aboriginal Cultural Heritage Bill	<u>Link</u>
NIT11	Get the jobs done	Link
NIT12	Joanne Taylor knows how hard her Elders fought for rights. In business she is determined to make mum proud	<u>Link</u>
NIT13	Miners at odds with farmers on cultural heritage laws	Link
NIT14	New contract wins jobs for Njamal people	Link
PM1	Pilbara Minerals website, news stories	<u>Link</u>
PM2	Pilbara Minerals website, various tabs	<u>Link</u>
PM3	2023 Annual Report (incorporating Appendix 4E)	<u>Link</u>
PM4	Pilbara Minerals home website	Link
PM5	Pilgangoora Project Mining Proposal Version 3 Rev1	<u>Link</u>
TheGreens	Consider environment in lithium boom	Link
TWA	Tania Constable: Urgent measures are needed to protect Australia's nickel and lithium industries	<u>Link</u>
WaGov1	Future Battery Industry Implementation Progress Report	<u>Link</u>
WaGov2	Future Battery Industry Strategy Western Australia	<u>Link</u>
WaGov3	Western Australian approvals framework Future battery industry projects (detailed)	<u>Link</u>
WaGov4	Strategy Update Western Australia's Future Battery and Critical Minerals Industries	<u>Link</u>
WaGov5	Western Australian approvals framework Future battery industry projects (summary)	<u>Link</u>
WaGov6	Clearing Permit Decision Report	<u>Link</u>
WaGov7	Exploration Incentive Scheme	Link
WaGov8	Exploration Incentive Scheme (EIS)	Link
WAT	Battle lines drawn as WA mining exploration pushes into country backyards	Link
YMAC1	Looking After Country: Our Mother, Our Provider and Keeper	<u>Link</u>
YMAC2	Pilbara Aboriginal community endorses Call to Action	Link

Appendix 5: Quoted functions

Categories	Name	Position	Period (If applicable/available)
	Andrew Forrest	Former CEO and current non- executive Chairman of the Fortescue Mining Group	April 2003-August 2023 and August 2023-present
	Helen Clark	Chair of the Extractive Industry Transparency Initiative	June 2019-now
Industry	Saul Griffith	Australian entrepreneur	
	Shannon O'Rourke	CEO of the Western Australia Future Battery Industry Cooperative Research Centre	November 2021-present
	Tania Constable	CEO of the Minerals Council of Australia	July 2018-present
Environmental organisations	Maggie Wood	Executive Director of The Conservation Council of Western Australia	November 2021-present
	Anthony Albanese	Prime Minister of Australia	May 2022-present
	Bill Johnston	Former Western Australia Minister for Mines and Petroleum	March 2017-December 2023
	Dean Smith	Liberal Senator for Western Australia	May 2012-present
	George Christensen	Former Member of Parliament for Dawson	August 2010-April 2022
	Jim Chalmers	Treasurer for Australia	May 2022-present
Covernment	Madeleine King	Federal Resource Minister	June 2022-present
Government	Mark Monaghan	Northern Territory Mining Minister	December 2023-present
	Pat Dodson	Former Labor Senator for Western Australia and Indigenous man	2016-January 2024
	Peter Klinken	Western Australia Chief Scientist	June 2014-present
	Roger Cook	Western Australia Premier	June 2023-present
	Stephen Dawson	Former Western Australia Aboriginal Affairs Minister	March 2021-Decemeber 2021
	Tony Buti	Western Australia Aboriginal Affairs Minister	December 2022-present