

COPPER IS NOT THE NEW GREEN

*Situating Repparfjord as Site of Extraction
in a Broader Regime of Extractivism*

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Copper ['kɒpə], *n.*

copper, as in chemical element: Cu, atomic number 29; a reddish transitional metal, highly malleable and an excellent conductor of heat and electricity.

copper, as in infrastructure: running through the electric veins of contemporary life, transmitting signals through cables, circuits, computers, phones, electric vehicles, ...

copper, as in ore: occurring within minerals and geological formations, concentrated in the veins of the earth; a landscape matter exposed, extracted and displaced to feed the material needs of modern society.

copper, as in the body: present as a trace element in blood, running through our veins; a chemical balance, connecting and sustaining life from deep within.

In Mendeleev's periodic table, copper appears as an individual element, defined through its measurable properties. But the movement from element to infrastructure, back to ore, and to the body unsettles copper as an isolated material. Its properties do not exist separately from the systems in which they become meaningful. Copper is always already in relation.



Repparfjord, July 2026



Green [grēn], *n.*

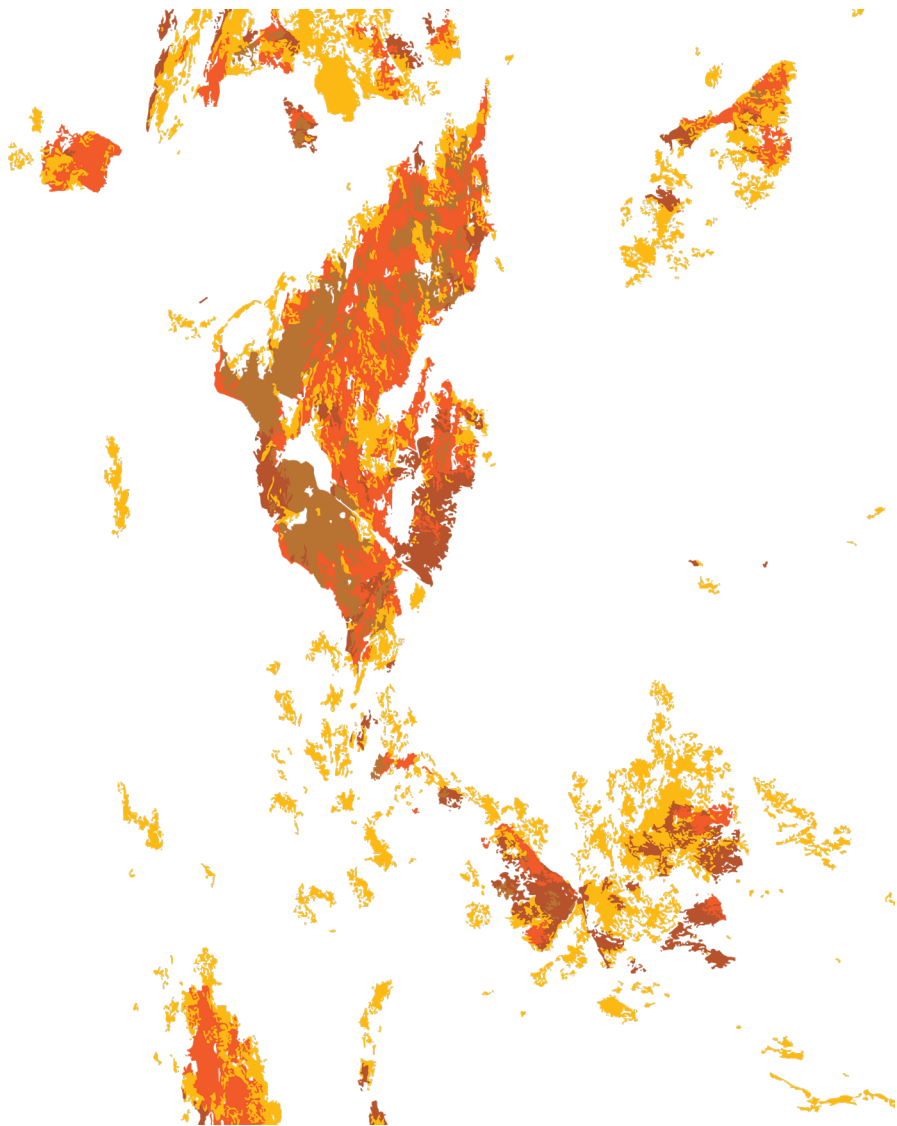
green, as in colour: light within the visible spectrum, between yellow and blue; a colour associated with grass, vegetation, growth and spring; a pigment historically made from minerals and metals, including copper compounds.

green, as in transition: a political and economic vocabulary describing a shift towards climate neutrality, renewable energy and resource efficiency. A promise of technological progress and a sustainable future.

green, as in greenwashing: the presentation of products, practices or industries as environmentally responsible, obscuring or minimising their material impacts.

green, as in green colonialism: foreign land grabbing and appropriation of resources for environmental purposes, resulting in a pattern of unjust development.

green, as in ruonas: a condition of a landscape, understood through relations between vegetation, seasonality, reindeer, fish, and people; the particular green of Sami summerland: “it is that good type of green of which the reindeer get fat of” (Turi Aleksandersen, personal communication, January 27, 2024)



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Calculating Criticality

Reading Between the Lines of Europe's Critical Raw Material Act

I. IN JANUARY 2019, I participated in one of the mass student marches of the Youth for Climate movement, joining thousands in the streets of Brussels. What was meant to be a moment of collective urgency quickly sparked a sense of unease in me. As the crowds dispersed, the streets were left littered with waste, an unsettling contradiction to our environmental claims. This experience left me wondering, where does responsibility for environmental care truly lie? While the protest discourse placed accountability squarely on the state, I became increasingly skeptical of this reliance. Waiting for the state to set an example felt insufficient. This moment marked a sense of distrust toward political agendas and the possibility that public demands for change might themselves be absorbed into the very systems they seek to challenge. One year later, the European Union responded by offering the “Green Deal” with its main goal of making the European Union climate-neutral by 2050.

Growing up in a European context, I pursued environmental awareness through my studies in design and landscape architecture, seeking tools to better understand and address ecological degradation. However, I quickly encountered the limits of my discipline. Its emphasis on technical mitigation and eco-design did not necessarily always translate into environmental care. My perspective shifted more fundamentally when I lived in northern Norway, within Sápmi, where I became aware of the ongoing colonial struggles of the Sámi people. Working alongside local reindeer herders, I witnessed firsthand the encroachment of infrastructure projects tied to Norway's green transition on Indigenous territories. What in 2019 had been collectively advocated for as a necessary

ecological shift appeared, in this context, as a catalyst for renewed socio-political conflict, revealing continuities of colonial dispossession in exchange for Europe's climate consciousness.

Today, six years on, this realization confirms my former concern. Hence, I find myself questioning the underlying logic through which "solutions" offered in the Green Deal are formulated. This is a broader concern that has led me to get involved with the particular case against the Nussir mine in Repparfjord, northern Norway, where mining company Blue Moon Metals intends to dump about 30 million tonn of mining waste into the fjord. I will expand on the case study in the second essay of this book, as well as in the investigative report *Copper*.

Since the Nussir project is supported by the European Commission as a Strategic Project for Europe's green transition, this first essay seeks to situate a local site of extraction within a broader geopolitical regime of extractivism*. Through a close reading of the Critical Raw Materials Act (CRMA), a key regulatory instrument within the European Green Deal. Promoted as a strategy to secure ethical and reliable sources of raw materials within the Union, my essay raises the question:

What forms of violence are rendered acceptable through the language of sustainability, security, and transition?

By taking the CRMA through a linguistic magnifying glass, à la Michel Foucault's lecture on The Order of Discourse (Foucault, 1970), this essay situates the CRMA within the framework of the European Green Deal, highlighting how extractivism is justified as necessary for climate mitigation while masking underlying neo-colonial relations. It reveals how the document employs language of social and environmental responsibility to obscure its true geopolitics, echoing Eyal Weizman's notion of governing through The Least of All Possible Evils (Weizman, 2012), where social and environmental harm becomes an acceptable trade-off managed, or calculated (Toscano,

2006), rather than prevented. This normalization of harm persists due to the politics of urgency that accelerate extraction in line with climate targets, thereby narrowing the chance of contestation for those who bear the consequences. Following Rob Nixon's concept of Slow Violence and the Environmentalism of the Poor (2011), the essay underscores how such urgency conceals the long-term, uneven impacts of environmental harm, emphasizing the need for a more expansive understanding of a transition that accounts for both ecological processes and lived experience.

Ultimately, this essay examines the potential for a just transition that recognizes Europe's colonial past and its ongoing legacy. It emphasizes the importance of redefining the standards, criteria, and values that inform regulatory frameworks like the CRMA. Inspired by Samí artist Máret Anne Sara's work, *To Be a Human on Earth* (2025), it explores alternative ecological philosophies rooted in Indigenous knowledge. These ideas are further illustrated by the case study of the Aerocene Pachamama project, which opposes lithium extraction in Argentina and proposes a visionary model for sustainable, non-exploitative futures (Saraceno, 2019).

** Extractivism refers to the processes, ideology, and effects of natural resource extraction. Under capitalist systems, extractivism tends to prioritise profit and economic growth over the well-being of communities and ecosystems, disproportionately affecting marginalised and Indigenous populations who bear the brunt of environmental harm. (ClimaTalk, n.d.)*

II. DISCOURSE AND COLONIAL CONTINUITY

Following the research question on which forms of violence are justified by the language of sustainability, this chapter starts with a sub-question: how is meaning created within such language? Critically analyzing the Critical Raw Materials Act (CRMA) involves more than just examining its content; it requires attending to the actions its statements enable and the effects they omit. In this context, “reading between the lines” is not just a metaphor but a methodological linguistic approach that aims to find meaning behind and beyond the Act’s words. To do so, this essay applies the method of discourse analysis inspired by French philosopher, Michel Foucault’s lecture *Order of Discourse* (Foucault, 1970). At its most basic, discourse can be understood as “a mode of organizing knowledge, ideas, or experience that is rooted in language and its concrete contexts” (Merriam-Webster, n.d.). However, following Foucault, discourse is not simply a neutral medium of expression. It is a system that determines what can be said, who is authorized to speak, and what counts as truth within a given domain (Foucault, 1970, pp. 52-56). The question, then, is not only what policies such as the CRMA are, but what kind of truth-regime they produce and reinforce. This essay focuses on the neo-colonial discourse woven into the Act; a discourse that, at first glance, might be seen as an environmental, political, or economic one, but which actually exposes the underlying power relations that it sustains.

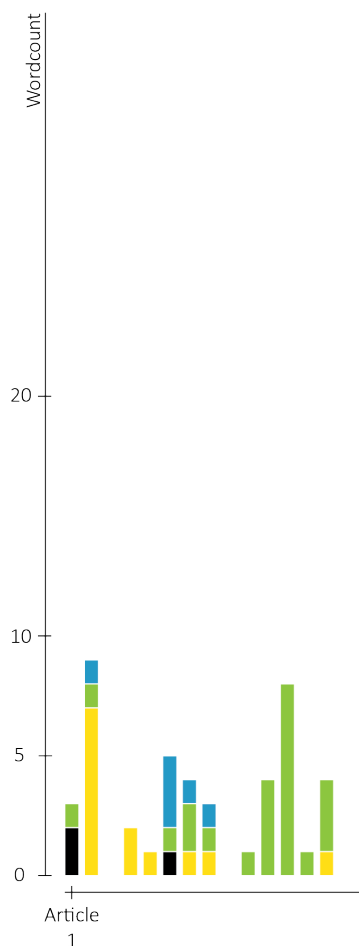
A first entry point into this discursive analysis is how the CRMA operates within a dense network of references, drawing on and reinforcing existing policy frameworks. In Foucauldian terms, this can be understood as part of a speech ritual: a regulated system in which statements derive their authority not only from their content, but from their position within an established institutional and discursive order (Foucault, 1970, p. 62). The Act does not speak in isolation, but through a chain of prior texts (policy strategies, legal frameworks, and sustainability principles) that structure what can be said and how it can be articulated.

This structure reveals what Michel Foucault describes as commentary (Foucault, 1970, pp. 57-58). Essentially, commentary shows how new texts are built upon earlier, authoritative sources rather than created from nothing. Certain documents serve as foundational references that are repeatedly cited, interpreted, and extended over time. The European Green Deal exemplifies this as a primary framework, a kind of “will to truth” (Foucault, 1970, p. 54) that sets what is seen as necessary, desirable, and legitimate. Instead of proposing entirely new ideas, later policies like the CRMA draw on it, reiterate key terms, and translate its goals into specific, actionable measures.

Additional documents, such as the European Union’s sustainability principles for raw materials, further define and solidify these ideas, offering social, environmental, and economic criteria that appear to provide a balanced basis for decision-making. However, these principles are explicitly voluntary and non-binding (European Commission, 2021, p.3), indicating a gap between declared values and enforceable action.

The CRMA fits within this hierarchy of texts, where meaning is gradually converted into what can and cannot be acted upon. The Green Deal’s “environmental” ambitions are operationalized through the CRMA’s regulatory language, but this process also narrows their scope. While concepts like “sustainability” remain key, their interpretation becomes confined to what can be implemented, measured, and regulated within the Act. This creates a form of actionability predetermined by the authors’ interests. As a result, this layered structure can obscure as much as it clarifies. Repeated terms like “environmental” or “circularity” across documents appear to foster coherence and consensus, but their practical meaning often stays flexible, underdefined, and so, questionable.

This concern is exemplified by an analysis of grammatical patterns considering the Union’s own sustainability principles (European Commission, 2021), as shown in Figure 1. Out of 49 binding articles of the CRMA, only 8 explicitly mention sustainability. Among the three principles, “environment” stands out with 69 mentions. Two critiques are notable: first, 32 of these mentions occur in a single article (art. 31), and without this article, the “environment” word count would be near the “economic” mentions, that counts a total of 33 mentions. Second, interpreting “environment” within a neocolonial context requires nuance. As environmental historian William Cronon (1996) notes, modern environmentalism often adopts a dualistic view that separates human activity from an idealized “nature,” seen as a space of authenticity beyond human influence. While not dismissing environmentalism altogether, Cronon emphasizes that this framing can obscure the interconnectedness of ecological and social systems. The social concern is scarcely mentioned, with only 17 mentions across 8 of 49 articles, confirming the separation of humans and nature and the political dominance that regulates it.

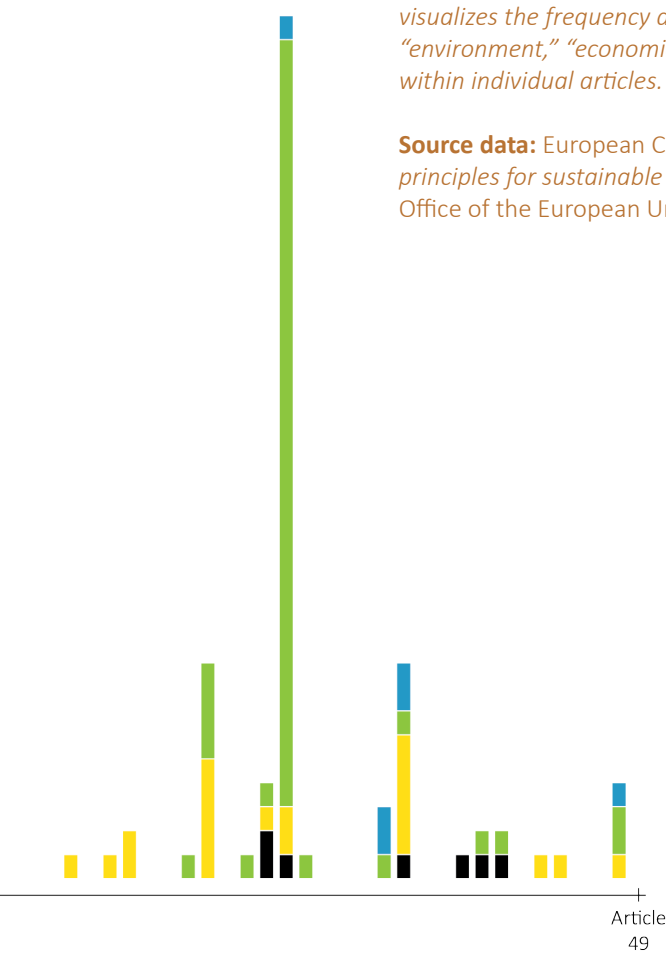


Ctrl+F

- Sustainability
- Economic
- Environment
- Social

Figure 1
Distribution of sustainability-related terms across the 49 binding articles of the CRMA. The graph visualizes the frequency and location of the terms “environment,” “economic,” “sustainable,” and “social” within individual articles.

Source data: European Commission. (2021). *EU principles for sustainable raw materials*. Publications Office of the European Union.



Total Wordcount	Articles
10	8/49
33	16/49
69	21/49
12	7/49

Reflecting further on social inequality, the CRMA presents itself as a framework promoting transparency in governance by outlining procedures, responsibilities, and coordination mechanisms. However, this transparency coexists with centralized decision-making authority at the Union level. Thus, the CRMA can be seen as a juridical discourse “that is said indefinitely” (Foucault, 1970, p. 57), a language form that continually reproduces its own authority.

Insights from Ánde Somby (2025) sharpen this reading. Through his work on legal semiotics, Somby demonstrates how colonial structures persist not only through law itself, but through the systems of meaning that determine which claims are legible as law. Central to this is his notion of the “doctrine of insignificant presence,” which describes how Indigenous relationships to land are rendered legally invisible when their sign-systems (ways of expressing ownership, use, and belonging) are not recognized within dominant legal frameworks (Somby, 2025, p. 15). In this process, plurality is not openly denied, but subtly foreclosed: alternative forms of knowledge are acknowledged only insofar as they can be translated into the dominant legal language.

A comparable dynamic can be observed in the *Mabo v Queensland (No 2)* ruling of 1992, which formally rejected *terra nullius* (also known as “nobody’s land,” historically used in international law to justify the occupation of land deeming indigenous people “too savage” to have rights to it) and recognized Native Title within Australian common law (High Court of Australia, 1992). While often framed as a break from colonialism, the decision ultimately preserved the underlying legal structure through a doctrine of tenure. As such, it left intact what has been described as the “skeleton of principle” (High Court of Australia, 1992, p. 19): a legal order capable of accommodating limited recognition without relinquishing its foundational authority.

Read through this lens, the CRMA reveals a similar pattern. It does not explicitly reproduce colonial doctrines, yet it operates within a framework that continues to structure unequal relations of power. This becomes most visible in what the Act does not say. There is no substantive engagement with Europe's colonial past, nor with the historical conditions that shape present-day resource dependencies. This silence is not incidental, what remains unspoken is constitutive of what can be said. In the CRMA former colonial territories are reframed as "Overseas Countries and Territories", and "strategic partnerships" suggest relations of cooperation and mutual benefit. In this language, asymmetries of power are not denied, but displaced, rendered less visible through a vocabulary of neutrality and collaboration. By presenting resource extraction as a technical and environmental necessity, the act avoids confronting the historical and political dimensions of that necessity.

III. CALCULATIONS AND THE IDEAL NECESSITY

“Criticality”?

Building on the linguistic insights from the previous section, this part explores the epistemic mechanisms that make extractivism seem necessary in the CRMA. It further deepens the discussion of meaning within the CRMA, asking what is considered critical both in and beyond the Act.

A calculated necessity

Within the CRMA, criticality is defined through a system of calculation. Raw materials are designated as “critical” based on their economic importance and supply risk (European Parliament & Council, 2024, recital 1), both of which are derived from quantified indicators, formulas, and thresholds. In this framework, the extraction of critical raw materials is framed as a necessity.

This need is rooted in the functioning of the internal market. The act repeatedly emphasizes that access to raw materials is vital to the Union’s economy and warns that uncoordinated national measures could threaten market stability, distort competition, and break supply chains (European Parliament & Council, 2024). Uncertainty, whether geopolitical or economic, is seen as a reason for intervention. As Eyal Weizman notes, modern governance increasingly operates amid recognized unpredictability. “Like the finance specialists who acknowledge the impossibility of prediction but do little else than calculate, the economists of violence are weighing their options and hedging their risks under the assumption of unpredictability and uncertainty. It is the very act of calculation [...] that justifies their action. Indeterminacy, the very principle that makes the economies of liberal capitalism generate profit, or burst after a sequence of failures, is also central to the conduct and potential outcomes of the war on terror.” - or in this case the striving for climate mitigation- “But along with the growing capacity of technological means also grows the incalculability of their consequences” (Weizman, 2012, as cited in Toscano, 2006).

This shift also marks a transformation in authority. If discourse determines what can be said, calculation determines what can be known—and, ultimately, what can be done. The authority of the CRMA no longer rests solely in its legal authorship, but also in the scientific and technical apparatus that underpins it. As Foucault writes (1970, p. 48), “the author is what gives the disturbing language of fiction its unities, its nodes of coherence, its insertion in the real”. In the case of the CRMA, this coherence is produced through formulas that render extraction both legible and actionable.

In this sense, the Act signals a shift from legal authority toward what might be called a superior episteme: a generalized mode of scientific reasoning in which value is determined through quantification. Categories such as economic importance and supply risk are not neutral descriptors, but structured parameters that prioritize what can be measured over what cannot.

$$EI = \sum_s (A_s * Q_s) * SI_{EI}$$

$$SR = \left[(HHI_{WGI,t_c})_{GS} * \frac{IR}{2} + (HHI_{WGI,t_c})_{EU_sourcing} * \left(1 - \frac{IR}{2} \right) \right] * (1 - EoL_{RIR}) * SI_{SR}$$

Figure 2

Formulas indicating Economic Importance (EI) and Supply Risk (SR)

Source: European Parliament & Council (2024). *Annex II of Regulation (EU) 2024/1252 of the European Parliament and Council* (pp. 58–59).

The flattening of material and conditional realities

While the CRMA presents criticality as an objective, universal metric, this framework obscures the material and contextual differences among resources. By reducing criticality to economic and geopolitical indicators, the Act flattens the complex realities of extraction into comparable units of value. An instructive reflection emerges from landscape architect Brett Milligan in his article *Accelerated and Decelerated Landscapes* (2022), in which he describes contemporary environmental change as unfolding through processes of immense speed and complexity, in which biological, geological, social, and technological systems are deeply entangled. Human interventions operate across these layers, intentionally and unintentionally, accelerating certain processes while slowing others, often producing cascading effects that exceed prediction or control. What appears as a generalized “environment” is, in reality, a dense assembly of interdependent conditions, shaped over vastly different temporal and spatial scales.

Read against this, the CRMA’s framework reveals a striking reduction. The designation of “criticality” translates such complexity into a limited set of comparable indicators, abstracting from the specific conditions under which materials are extracted. Geological formation, ecological disruption, labor relations, and local lifeworlds are compressed into units of economic importance and supply risk. In doing so, the Act transforms materially situated processes into abstract variables that can be ranked, compared, and governed. Calculation, in this sense, establishes a hierarchy of relevance, determining which aspects of environmental change become actionable, and which are rendered peripheral or negligible.

This reduction becomes tangible in the distinction between “strategic” and “critical” raw materials. Copper, for instance, is classified as strategic rather than critical, not because it is less essential, but because it is more widely available and less vulnerable to supply disruption. Lithium, by contrast, is deemed critical due to the Union’s dependence on third countries. But are both materials as

indispensable to the green and digital transition? Without copper, no transition is possible, given its role in wiring electrical infrastructures for renewable energy systems and digital innovation. Lithium, while central to battery technologies, is not universally required across all applications, yet it is largely unretrievable within the Union's borders.

What this reveals is that criticality, as defined by the act, does not correspond to ecological necessity or material indispensability, but to market vulnerability. The determining factor is not what a resource enables, nor what its extraction entails in environmental or social terms, but how exposed its supply chain is to disruption. In this sense, the concept of criticality abstracts from the conditions of extraction; the landscapes transformed, the labor involved, the waste produced, and the communities affected. The material specificity of extraction is displaced by an economic logic that prioritizes stability and security of supply over the uneven consequences of obtaining it.

This abstraction is reinforced by the use of universalized standards aligned with Union and international frameworks, grounded in a generalized mode of scientific reasoning. While these standards suggest neutrality and comparability, they impose a form of equivalence that does not hold in practice. Different materials, extracted under vastly different ecological, political, and social conditions, are rendered commensurable within a single system of calculation. The variability of extraction; its risks, impacts, and dependencies, is translated into standardized metrics that can be integrated into policy instruments. Conditional and material complexity is thus reduced to fit the requirements of governance.

If criticality is defined through what can be calculated, its limits become visible in what cannot. While the CRMA includes provisions for environmental and social impact assessments, these operate according to a different logic. Unlike the formulas used to determine economic importance and supply risk, impact criteria remain open-ended: projects "shall take into account" environmental and social considerations, without fixed parameters, thresholds, or comparable

metrics. This difference is not incidental, but structural. What can be quantified becomes binding; what cannot remains advisory.

This produces a structural imbalance. Economic and geopolitical aspects are formalized, measured, and enforceable, while social and environmental concerns are acknowledged but remain open to interpretation. When assessed, evaluation is largely entrusted to scientific and technical experts, often appointed within the project frameworks themselves. As a result, accountability shifts from predefined standards to discretionary judgment. The absence of fixed thresholds does not imply flexibility alone; it also introduces a degree of indeterminacy that can be resolved in favor of advancing the project.

As established in Part I, this imbalance also determines who counts as a legitimate knower. Local communities, particularly Indigenous groups, are positioned primarily as stakeholders to be consulted rather than as epistemic authorities. Their knowledge, often grounded in long-term ecological relations and lived experience, does not easily translate into the quantitative frameworks that govern decision-making. As a result, it is frequently marginalized, not through explicit exclusion, but through incompatibility with the dominant system of valuation. Knowledge that cannot be expressed as data, indicators, or performance parameters struggles to enter the field in which decisions are made. Meanwhile, effects unfold across scales and durations that exceed the scope of calculation, as impacts accumulate in ways that are not immediately visible within the metrics that guide decision-making.

From epistemic imbalance to structural violence (Nixon, 2011, p. 10), extraction becomes normalized through ethical calculations that are framed as the least harmful way to achieve a green future (Weizman, 9).

IV. TEMPORALITIES AND POLITICS OF URGENCY

The third and final critique of the Critical Raw Materials Act examines how urgency is produced through time. Following the calculative logic outlined in the previous section, the CRMA governs both action and its timing. It establishes a temporal regime that prioritizes acceleration, compresses procedures, and reduces the space for contestation. Extraction is framed as a process that must advance at a pace aligned with projected futures. From this perspective, time becomes an instrument of governance. Decisions are organized around deadlines, benchmarks, and forecasts that define what counts as timely and necessary intervention. A politics of urgency emerges in which speed itself legitimizes action, positioning delay as risk and hesitation as failure to act responsibly within the demands of the green transition.

The temporal logic of the CRMA is anchored in quantified benchmarks derived from the European Green Deal (European Parliament & Council, 2024, Article 5, pp. 21–22). Targets such as sourcing ten percent of annual consumption from within Union territory, processing forty percent domestically, securing twenty-five percent through recycling, and limiting dependency on a single third country to sixty-five percent; establish a measurable horizon. These figures project a desired future and organize present action toward its realization. Urgency emerges through the gap between the current state and these projected targets. This gap calls for rapid intervention and continuous monitoring. The framework imposes a uniform temporal structure across diverse materials and extraction contexts. Differences in geological formation, ecological vulnerability, and social impact are subsumed under shared timelines. The result is a system that privileges comparability and predictability, organizing complex realities into a synchronized schedule of action.

An acceleration that becomes visible in the procedural architecture of the Act. Streamlined permitting processes, fixed deadlines, and centralized administrative structures reduce friction in project

approval. A key mechanism lies in the designation of “Strategic Projects” (European Parliament & Council, 2024, Article 6, pp. 22–23). Once granted this status, projects gain privileged access to financing and benefit from shortened approval timelines. Extraction projects are to be permitted within a maximum of twenty-seven months, while processing and recycling projects operate within even shorter timeframes. These measures reshape the conditions under which decisions take place. The compression of administrative time narrows the possibilities for legal challenges, limits the depth of public consultation, and reduces opportunities for political debate. Acceleration here functions as a governing strategy that aligns institutional processes with the pace required to meet predefined objectives.

Here, the concept of slow violence, as developed by Rob Nixon (2011), becomes significant. Nixon describes forms of harm that unfold gradually, often invisibly, and whose effects are dispersed across time and space. Such violence is difficult to represent within systems that prioritize immediacy, yet it is precisely these temporalities that characterize many extractive processes. As Nixon writes, slow violence challenges “the representational challenges and imaginative dilemmas posed not just by imperceptible violence but by imperceptible change” (Nixon, 2011, p. 11). Within the CRMA, however, these extended temporalities remain largely outside the frame. Environmental and social impacts are treated as variables to be assessed, rather than as ongoing processes that exceed the lifespan of projects and policies.

This exclusion is not merely technical, but epistemic. The temporal framework of the Act privileges what can be projected, measured, and aligned with policy timelines. Communities affected by extraction (often those already embedded within histories of colonial exploitation) experience these processes not as discrete events, but as cumulative transformations. The designation of “strategic partnerships” and the continued reliance on former colonial assets further embed these dynamics within a global geography

of dependency, where the burdens of extraction are distributed unevenly across time and space.

Addressing this imbalance involves not only critiquing the concept of speed but also rethinking the very nature of time. Canadian philosopher Michelle Murphy (2017) introduced the idea of alterlife, which refers to body politics, transformed bodies, ecosystems, and reproductive futures influenced by contamination. This view emphasizes the lived temporalities of communities experiencing long-term exposure, adaptation, and survival amid environmental degradation. Unlike the linear, future-focused time used in policy benchmarks, it suggests a more pluralistic perspective; one that recognizes overlapping durations, delayed consequences, and uneven distributions of harm.

Returning to Michel Foucault, this temporal regime can be understood as part of a broader discursive formation that organizes knowledge, action, and possibility. Foucault's notion of discourse as event and series emphasizes discontinuities and conditions of emergence. Policies do not unfold as linear progressions toward fixed goals; they operate within contingent arrangements that can be reconfigured. The temporal structures embedded in the CRMA reflect specific choices about how time is organized and valued. Exposing the tension between calculated urgency and lived temporalities reveals the contingency of the present and the possibility of alternative arrangements that this analysis seeks to open up to.

If the Act accelerates extraction by compressing time and stabilizing futures, then its critique must work in the opposite direction: slowing down, pluralizing temporalities, and reopening the space for contestation. The question is not only how fast we move, but whose time counts.

V. THROW OFF THE SOVEREIGNTY OF THE SIGNIFIER

Returning to the research question, this essay has examined what forms of violence are rendered acceptable through the language of sustainability, security, and transition. The analysis of the Critical Raw Materials Act produces a policy field embedded in power relations that date back to colonial times. The key terms that structure the document organize how extraction is understood and justified. They determine what is deemed necessary, legitimate, and excluded from consideration. Consequently, the CRMA creates a present-focused regime of action that overlooks its past and masks its future implications. Within this regime, violence is not absent. Environmental degradation is framed as a necessary condition for decarbonization. Extraction becomes acceptable when it is linked to climate targets. Colonial relations are reframed as strategic partnerships, which conceal asymmetries of power and dependency. Short-term urgency justifies immediate intervention, while long-term ecological harm is displaced into the far future.

This dynamic reflects a broader operation of discourse. Following Foucault, discourse does not function as a neutral medium of truth. It produces the conditions under which truth is recognized. In the case of the CRMA, the issue is not only what can be said, but how meaning is fixed in advance. The signifiers of sustainability, security, and transition are stabilized in ways that limit interpretation. They bind meaning to a logic of necessity. Extraction appears inevitable. Acceleration appears required. Security appears dependent on control over resources. Alternative interpretations are rejected, and rendered unthinkable. To throw off the sovereignty of the signifier (Foucault, 1970, p.69) is to challenge this stabilization of meaning. It is not a rejection of language, but a refusal to treat these terms as self-evident. Sustainability, security, and transition must be understood as sites where power and interpretation converge. Their meanings are not given. They are produced through specific historical and political conditions. Questioning them opens the possibility of thinking beyond the limits they impose.

Returning to the work of Ánde Somby to support this shift, his articulation of the “doctrine of insignificant presence” previously showed how colonial power operates through epistemic exclusion. Entire systems of meaning are denied recognition within dominant frameworks. What is excluded is not only content, but the conditions under which meaning itself is produced. Read alongside the CRMA, this reveals that the issue is not simply a lack of inclusion. It is the delimitation of what counts as meaningful knowledge. Somby calls for new capacities to read and to let other signs signify. This introduces a different approach to meaning. It does not seek to translate all knowledge into a single dominant category. It allows for the coexistence of pluralistic systems of signification. (Somby, 2025, p. 2)

Building on signs and meaning, Sámi artist Máret Anne Sara reorients the question of value. Her work *To be human on Earth* (2025) begins from relationality rather than extraction. Value is not defined through utility or resource potential but emerges from the maintenance of relationships between human and non human worlds. This perspective shifts how responsibility is understood. Responsibility becomes a commitment to sustaining conditions of coexistence across time. The focus moves from mitigation to prevention, from efficiency to restraint. This turn challenges the logic of necessity that underpins the CRMA. What is considered necessary is not neutral. It is shaped by specific values and priorities rooted in political relations and economic needs. Sara’s perspective exposes this process and proposes a different foundation. By emphasizing continuity, care, and interdependence. It also challenges the temporal logic of urgency. Long-term ecological relations cannot be reduced to short-term policy goals.

The Aerocene Pachamama project (Saraceno, 2019) extends this values into action. Initiated by artist Tomás Saraceno in collaboration with a global, interdisciplinary community of researchers, activists,

and local participants, the project forms part of the broader Aerocene initiative, which explores alternative modes of movement and habitation in the atmosphere. Aerocene Pachamama was realized in the salt flats of Salinas Grandes in Argentina, a territory deeply affected by lithium extraction driven by global demand for renewable energy technologies. In response, the project proposed a different relation to energy and mobility by developing a solar-powered, lighter-than-air sculpture that achieved human flight without the use of fossil fuels, helium, or extractive resources. This gesture is not intended as a scalable technological solution, but as a conceptual and material intervention that rejects the assumption that sustainability must rely on continued extraction. By demonstrating the possibility of movement without depletion, it interrupts the material logic of the transition and shifts attention from improving extraction to questioning its necessity.

All together, these perspectives do not form a unified alternative system. They operate at different levels. Somby addresses meaning. Sara redefines value. Aerocene proposes another relation to action and materiality. Their importance lies in how they reopen the conditions under which alternatives can be thought. They challenge the closure produced by dominant signifiers and reveal that the current framework is neither natural nor inevitable. The CRMA can therefore be understood as a site where specific futures are stabilized while others are sacrificed. Its force lies in its ability to produce necessity. Extraction appears unavoidable and urgent. Security appears dependent on control. Each of these claims rests on prior assumptions about value, knowledge, and responsibility. Questioning these assumptions does not deny the urgency of the ecological crisis. It repositions it. It asks how urgency is defined and distributed, and who bears its consequences. To throw off the sovereignty of the signifier is to resist the closure of meaning. It is to keep open the possibility that sustainability, security, and transition can be understood differently. It creates space for multiple forms of relation, value, and action to emerge.

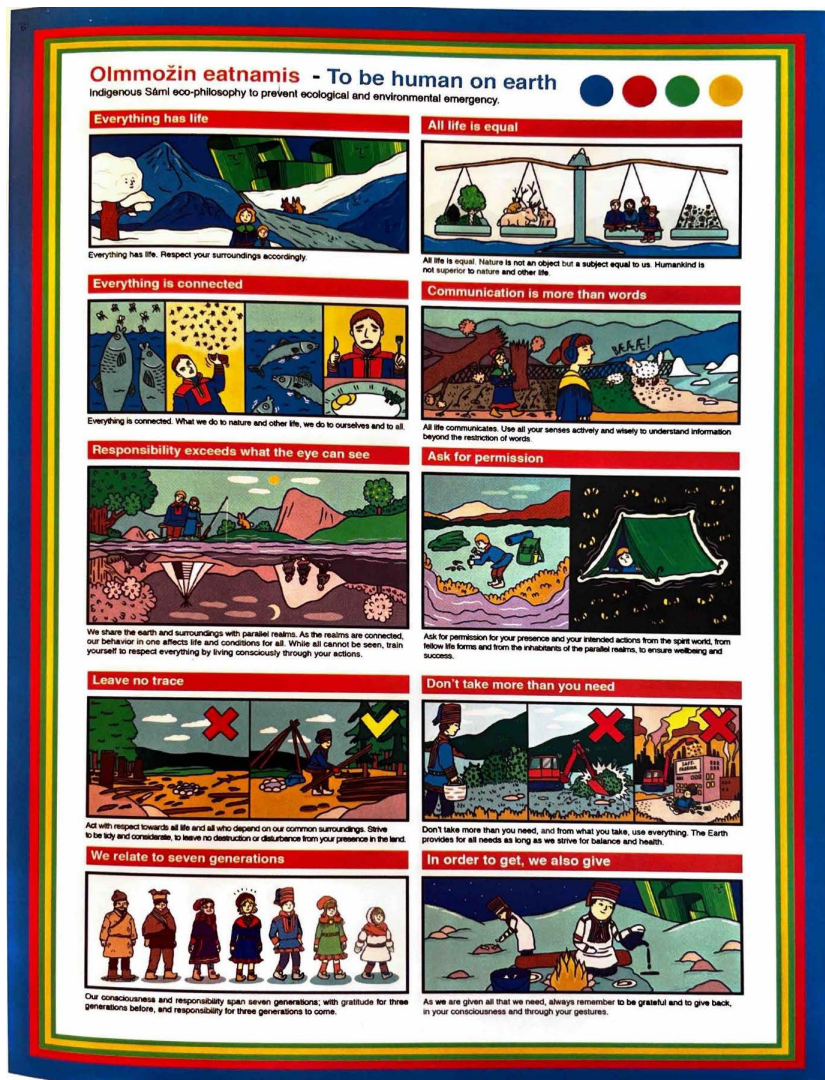


Figure 3: Máret Ánne Sara, *Olmmožin eatnamis – to be human on earth* 2025. Sara developed an art project for public space with KORO, inspired by emergency manuals found in airplanes. Illustrated by Linda Heggen

Source: Máret Ánne Sara (2025). *Goavve-Geabbil*. Edited by H. O'Malley, Tate Publishing. (p. 95).



STÅ OPP FOR REPPARFJORD

*Demonstration at Heartree Partners, main investors of the Nussir Mine
London, 26/02/2026*

A mine in Sámi territory, under Norwegian rule, and Canadian ownership, facilitated by European regulation, and British money...
The transition may be green in its stated purpose, but following its financial architecture reveals the true colours beneath the surface.



Strategic or Strategy?

Countering the Nussir Strategic Project Status by Challenging the CRMA Application Procedure to Unveil an Underlying Greenwashing Strategy

I. ON JUNE 4TH 2025, the European Commission granted the Nussir mining project in Repparfjord, Norway, Strategic Project status under the Critical Raw Materials Act (CRMA). With its core aim of ensuring a secure and sustainable supply of critical raw materials, the Strategic Project title provides, among other benefits, financial support to extraction projects by offering advice on financing and facilitating offtake agreements. In my opinion, it is not an unjustifiable assumption that the application for Strategic status, rather than concerning the actual strategic value of copper extraction in Repparfjord, is a wolf in sheep's clothing concealing a financial strategy to push the activation of an unwanted mine.

This suspicion is supported by the site's history. Since mining began in Repparfjord in 1903, the concession has changed ownership five times. Aside from the initial company, Nordiska Grufaktiebolaget (active between 1903 and 1910), only Folldal Verk operated the mines (from 1971 to 1978). After seven years of mining, they had to scale back and eventually shut down the operations because the copper market was unpromising and no near-term improvements were expected, as reported by 'Bergmester' Albert Vasshaug, the official overseeing exploration and mining, in 1977 (Figure 1).

The situation regarding mining operations in Repparfjord is very serious, and in my opinion there are only two possible ways to save the operation:

1. a high copper price;
2. discovering ore reserves so that production can be doubled

Figure 1: *Excerpt from Albert Vasshaug's 1977 report recommending that production at the Repparfjord mines be scaled back.*

Source: Vasshaug, A. (1977). *NOTAT: Folldal Verk A/S – Repparfjord gruver. Innskrenkning av produksjonen* (p. 7). Bergvesenet Rapportarkivet, rapport nr. 5867, Trondheim. See annex for original report in Norwegian

This was neither the first nor the last time the mines in Repparfjord were deemed unviable. Another report in this research archive notes that in 1932, geologist C. W. Carstens advised the mining company Orkla against purchasing the concessions from Nordiska Grufaktiebolag (Figure 2).

CONCLUSION.

Based on the surveys I have carried out to date on the copper ore deposits in Repparfjorden, and despite the considerable area covered by the ore deposits, I do not consider it advisable to purchase the deposit for A/S Orkla Metals

Figure 2: *Excerpt from C. W. Carstens's 1932 report advising A/S Orkla Metals against purchasing the Repparfjord concessions.*

Source: Carstens, C. W. (1932). *Repparfjord koppermalmforekomster* (p. 3). Bergvesenet Rapportarkivet, rapport nr. 6954, Trondheim. See annex for original report in Norwegian

Although these examples relate to deposits in the abandoned mines of the Ulveryggen area, after the Folldal mines closed, further exploration in the Nussir area followed Vasshaug's advice to expand the ore deposit. A 1991 report by Erik Ludvigsen of SINTEF, however, indicated that feasibility studies concluded the Nussir deposit could not be profitably mined either, given current metal prices and available technology (see Figure 3).

Feasibility studies indicate that the Nussir deposit cannot be mined vprofitably, given the expected metal prices and the technology assessed.

Figure 3: *Excerpt from Erik Ludvigsen's 1991 feasibility study concluding that the Nussir deposit could not be mined profitably.*

Source: Ludvigsen, E. (1991). "Nussirforekomsten": En mulighetsstudie (p. 5). Bergvesenet Rapportarkivet, rapport nr. 4276, Trondheim. See annex for original report in Norwegian

Profitability was likely a key factor in the fate of the Repparfjord mines, with market conditions and metal prices continually shaping project evaluations since mining began there. These profit rates changed significantly in the early 2000s, shortly after Terra Control (later Nussir ASA) acquired the project, when copper demand and prices surged amid a broader commodity boom. Rising global demand, especially from China and emerging economies, pushed raw material prices higher. As shown in Figure 4, the average copper price rose from about US\$0.70 per pound in the early 2000s to over US\$4 per pound by the 2010s. Over two decades, copper's economic value has continued to increase greatly compared with earlier periods when developing these deposits was deemed unprofitable. Meanwhile, halfway into the 2020s, the rationale for extracting copper has shifted from simple market demand to a necessity for the green transition. The 2019 European Green Deal has boosted policies that support innovative technologies to advance digital and renewable energy sectors, both of which rely heavily on copper infrastructure. The rise in copper prices thus reflects broader political and economic shifts, making deposits like Nussir more appealing than ever. Instead of just meeting current market needs, European policies now actively promote developing domestic critical raw material sources to ensure a stable supply.

The CRMA's strategic framing of Nussir not only enhances Europe's copper security but also creates a lucrative opportunity for the mining firm, thereby improving the economic outlook of a project that was previously contested. A contestation that goes beyond past market fluctuations; paradoxically, the green transition agenda risks overshadowing longstanding environmental concerns. Around 2010, when Nussir ASA proposed dumping millions of tonnes of mining waste into the nearby fjord, opposition from the local community, Naturvernforbundet, Natur og Ungdom, the Sámi Parliament, reindeer herders, and scientists led to an ongoing, powerful campaign against the massive pollution and destruction of Repparfjord's ecosystems. This movement led to major investor Aurubis's withdrawal from its offtake agreement with Nussir ASA in August 2021, citing unmet sustainability criteria (Aurubis, 2021). Consequently, the planned start of mining in 2018 was postponed, and to date the company has neither extracted nor gained any financial benefits from the deposit (Figure 5).

Figure 4: Annual average copper value, 1959–2026. The vertical orange lines mark changes in mine ownership, and the orange dots mark key events in green transition regulation.

Source data: Macrotrends. (2026). *Copper prices: Historical chart and data, 1959–2026*. Retrieved 7 September 2026.



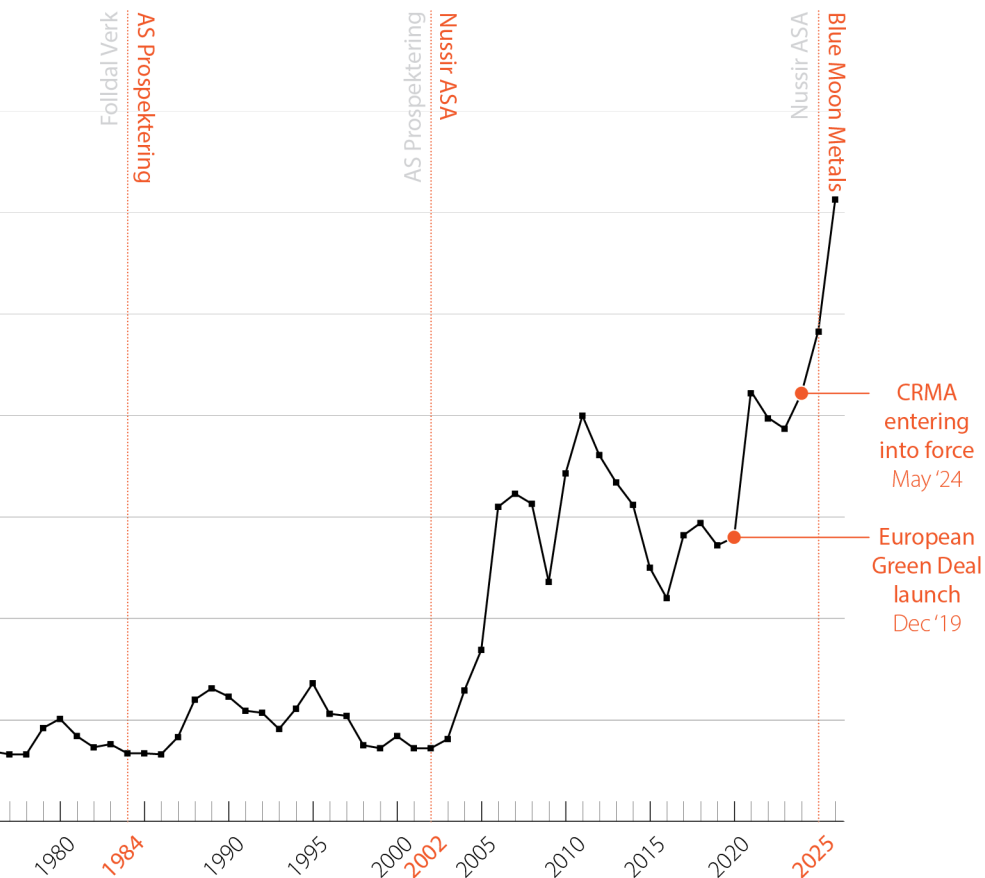


Figure 5: Nussir ASA's financial history (2011–2025) traces fourteen years of near-zero revenue sustained purely by shareholder equity, the balance-sheet signature of a “stranded” deposit unable to convert its resource value into extraction amid sustained opposition. The pattern breaks sharply in 2025: equity collapses into negative territory while debt and costs spike by an order of magnitude, coinciding with Blue Moon Metals’ buyout and the EU’s CRMA strategic designation.

Source data: Nussir ASA annual reports, 2011–2025. Brønnøysund Register Centre, org. nr. 937917376.

Rather than resolving the project's underlying conflicts, the graphs suggest the CRMA status functions as a financing instrument, unlocking the capital and debt needed to finally activate a mine that market and social pressure alone had kept dormant for over a decade.

This tension between the strategic designation of the Nussir mine and the ongoing conflicts surrounding the project shapes the entry point of this dissertation, which examines how the project has been recognised as strategic. It draws on Articles 6 and 7 of the CRMA, which set out the requirements for achieving Strategic status, and on the application review and approval processes. By revisiting Nussir's application at each stage of the regulatory process, I analyse the evidence presented on environmental and social aspects, identifying gaps and contradictions where evidence is missing, incomplete, or inconsistent with the criteria. The aim is to uncover discrepancies and unresolved issues.

Notably, the CRMA, by design, operates through abstraction: it reduces mines to supply units, landscapes to extraction sites, and environmental and social impacts to measurable criteria. With the power to determine whether a project meets technical standards, this system also shapes what it deems relevant within its assessment threshold. Consequently, assessing whether Nussir ASA complied with regulatory criteria should also consider what these criteria can detect and which aspects fall outside their scope of protection.

As a landscape architect, I view this limit as a starting point.

Rather than focusing solely on regulatory language, I consider the application alongside the landscape it describes. Through the site's placenames-Repparfjord, Ripperfjord, and Riehpuvuotna- which are not merely interchangeable labels, I recognise different ways of understanding the territory. Each name carries its own history, knowledge system, and connection to the land. By shifting between these perspectives, I aim to identify where regulatory categories fall short.

The first part, **Repparfjord**, the site's most common name today, highlights what is at stake in the environmental impact assessment underpinning the strategic project application. While the regulation may suggest an optimistic outlook for a sustainable future, I contend that its procedures obscure the area's true past and present environmental conditions. Expanding a contentious mine is not the same as achieving sustainability, and the rapid approval of assessments (which were conducted long before the CRMA was established) warrants closer examination.

The second part, **Ripperfjord**, set in 1905 during Swedish-owned mining operations, expands on this by examining the overlooked past and situating the Nussir project within Norway's position as a third country relative to the EU. It traces stories of identity: Norway's 1905 independence, Sámi rights, the distinction between European (EU) and European Economic Area (EEA) membership, and the mine's international ownership. These elements highlight a geopolitical context in which third-country obligations under the CRMA might be neglected or confused with EEA privileges.

The third part, **Riehpuvuotna**, the Sámi name for the area, broadens the inquiry to acknowledge the site's environmental and cultural value, recognising it as a sacred place rather than merely a sacrifice zone. I argue that a just green transition should align with Norway's truth-and-reconciliation objectives. Sámi place names, I contend, offer vital lessons for navigating landscapes through relationships, prompting a rethinking of agency, authority, and sovereignty in environmental decision-making.

Accordingly, this research integrates a close reading of the CRMA procedure with a landscape-based analysis of the territory. Alongside articles 6 and 7, which form the regulatory lens through which the Nussir application is assessed, and the project's application materials, this work draws on personal fieldnotes and a relevant body of literature on sacrifice zones (Juskus, 2023) and on repair after extraction (Buck, 2019). The aim is to reveal what emerges when regulatory interpretations of Nussir are placed in dialogue with the site's deeper histories, and to ask whether it is still possible to turn the tide, or whether regulation and legislation of this kind are ultimately designed to serve the profit of the company and the state alike.

II. REPPARFJORD

Ryan Juskus's concept of the "sacrifice zone" offers a compelling framework for understanding the negative impacts of the green transition agenda, both in Repparfjord and elsewhere. It highlights how environmental harm is intentionally concentrated in specific (often neglected) areas to safeguard the health and sustainability of other regions. This practice is frequently justified by the idea of a "greater good," such as economic growth, national security, social progress, or innovation; benefits that travel elsewhere while disregarding the consent of the local communities directly affected. (Juskus, 2023, p. 51). Environmental Impact Assessments (EIA) are incorporated into the requirements of the strategic-project application process to prevent or mitigate such harm. Yet, the logic of the sacrifice zone is embedded in the CRMA itself from the outset: the Act (European Parliament & Council of the European Union, 2024) declares that "Strategic Projects should be considered to be in the public interest" (recital 24) and that "it should be possible to authorise Strategic Projects which have an adverse impact on the environment" (recital 27).

Besides, responsibility for assessing a project's environmental consequences remains external to the CRMA's framework, sitting primarily with the authorities of the country where the project is located. This creates an important separation within the regulatory architecture: the European procedure can determine that a mine is strategically important, while environmental authorities separately determine whether and under what conditions it can be permitted. The distinction is particularly significant in the case of the Nussir mine. The project had already received permission to dispose its mining waste into Repparfjord in 2016, when the Norwegian Environment Agency granted Nussir ASA a permit under the Pollution Control Act (Miljødirektoratet, 2016). If an environmental assessment has already been completed and a project has obtained the necessary national permits, the CRMA does not reopen the underlying environmental question when a project subsequently

seeks Strategic Project status. On 21 April 2026, Stortinget (the Norwegian parliament) voted on whether that dumping licence (by then a decade old) should be reconsidered as outdated. Yet, because the Nussir project had already received its strategic title, that same status was, appropriately enough, used strategically to argue for keeping the licence valid, framing the project as indispensable for the green transition (Stortinget, 2026).

While the CRMA projects an optimistic future in which “green” technology appears to be our sole path to sustainability, it’s crucial to remain sceptical about whom these futures benefit and what might be sacrificed in their name. I want to ground these initial thoughts with observations from my fieldwork in Repparfjord on July 8th, 2026. Recognising that it may be challenging for authority figures, who are often disconnected from local realities, to grasp the full impact of the proposed Nussir mine, I visited Repparfjord to see firsthand how the landscape has responded to mining remnants from activities in the 1900s and 1970s.



Figure 6: Fieldwork photograph path towards the old mines, Repparfjord, July 2026.

Fieldnotes: While preparing the fieldwork back in London, I was already surprised by how easily traces of activity from 120 years ago could be read in aerial imagery. That legibility becomes clearer on site, as it appears that the old pathways are still used occasionally. However, where rubble from the 1970s mine has blocked the old pathways from the early 1900s (an obstruction which we barely managed to cross), it was striking to see how thoroughly nature has reclaimed the most remote parts of the abandoned workings. Yet, overgrown as it is, the old rail track (its rails long gone) and its bridges remain perfectly legible, the old mine itself resting under yassa, the Sámi term for the patches of snow that never fully thaw even in summer.

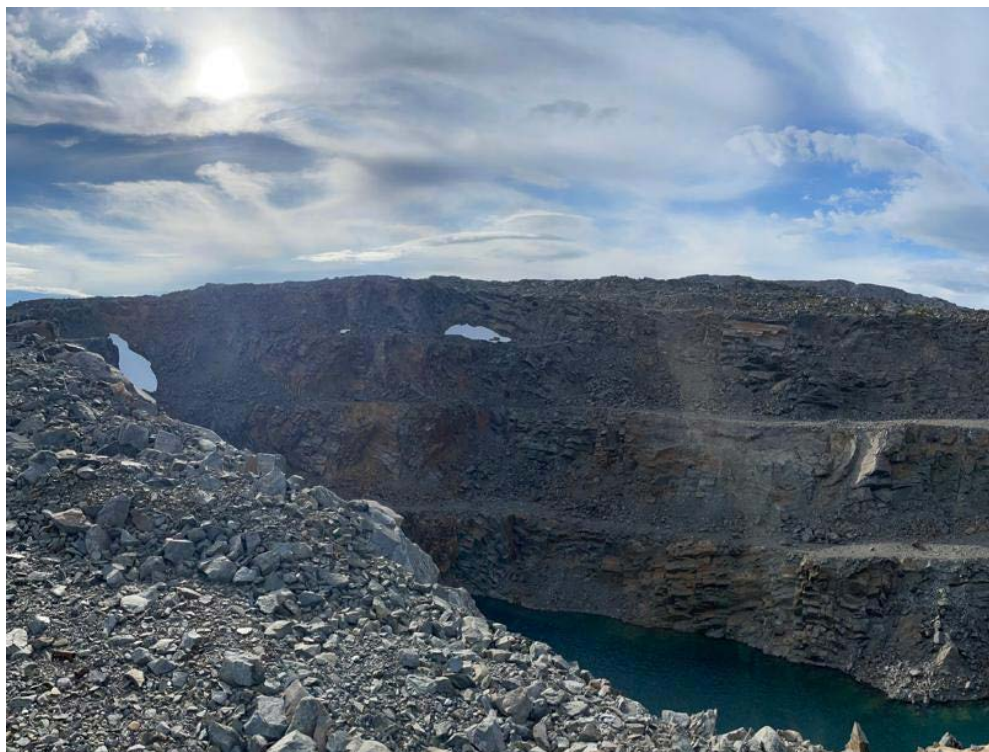


Figure 7: Fieldwork photograph open pit mine, Repparfjord, July 2026.

As hopeful as it was to see nature's capacity to restore what had been damaged in the traces of the first mines, it is harder to imagine the same happening to the later mining infrastructure after seeing the impact of the 70s open-pit mines, an impact that will long outlast whatever profit they produced.





Figure 8: Collage of three mines in Repparfjord from different periods: a cave-like mine from 1905 at the centre, a concrete shaft of unknown date behind it, and the moon-like landscape of the 1970s open-pit mine in the background. A project continuously expanded, abandoned, and never accounted for.

Tailings and paper trails, it is strange to see how similarly they operate.

A wagon track becomes a gravel path, then an industrial road. A mine shifts from a cave to a concrete shaft to an open pit. Waste accumulates exponentially and remains: on the land, in the rivers, and dumped in the fjord.

The agenda extends in much the same way. A gold rush becomes rising market value, then a necessity for the great “Green Deal.” Different justifications, the same intent: an economic model operated by distant actors, where profit travels elsewhere.

Both leave a trace; this is still the same mine, ruled by similar distant beneficiaries, affecting new generations of the same local communities. Both the mine’s waste and its documentation show that this copper mine has never been, and never will be, green; and that a transition does not only reflect an ideal future but also entails an unignorable past.

These observations, however, account only for what happens on land. The proposed Nussir development would generate an estimated 30 million tonnes of mining waste, a significant portion of which is intended to be dumped directly into the fjord. In this case, the visual absence of the waste, should not be mistaken for an absence of impact. Once deposited in the fjord, the waste becomes part of an ecological system that cannot be contained according to the boundaries through which it is administratively managed. This recalls Ward Churchill's discussion of pollution produced through colonial extraction, in which the movement of toxic materials exposes the inadequacy of political and territorial boundaries as a means of containing environmental harm:

“The ecological effects of (radioactive) colonization know no boundaries,” wrote Ward Churchill. Toxic particles, he continued, do not know they are intended to stop when they reach non-Indian territory. Contaminated water does not know it is supposed to pool itself only under Indian wells. Irradiated flora and fauna are unaware they are meant only for consumption by Indigenous “expendables.” The effects of such things are just as fatal to non-Indians as they are to Indians. ... Neither genocide nor ecocide can be “contained” when accomplished by nuclear means. The radioactive colonization of Native North America therefore threatens not only Indians, but the survival of the human species itself.”

(Churchill, 2002, as cited in Juskus, 2023, p. 12)

III. RIPPERFJORD

The field trip extended far beyond the extraction site's physical boundaries. The journey from Tromsø towards Repparfjord also greatly shaped my inquiry. It became a vantage point for considering the north's layered narratives of (in)dependence and border politics; an embodied experience that informed this section's effort to situate the Nussir mine within the broader context of EU regulations.

The mining history of this region dates to 1905–1910, when the Swedish company Nordiska Grufaktiebolaget first marked the site as “Ripperfjord” on its maps (Figure 9). This era coincided with an epochal shift in Norwegian history: on 7 June 1905, Norway declared its independence from Sweden, a move overwhelmingly supported in the plebiscite of 13 August and officially recognised by Sweden on 26 October that same year. Yet the legal roots of mining in this territory run much deeper, dating back to the union with Denmark from 1537 to 1814. The 1539 Bergverksordning, a mining ordinance issued under King Christian III, introduced the bergregale: the principle that all metals and ores belonged to the Crown, even when they lay beneath private land. Alongside this came bergfrihet and leterett, the right to prospect freely, and forsteretten, the right of the first discoverer to explore and extract (Store norske leksikon, n.d.). These principles persisted through the subsequent union with Sweden (1814–1905) and into Norway's gradual assertion of sovereignty. The political reorganisations and border-making of this period deeply affected Indigenous communities: a pervasive terra nullius logic justified land dispossession for mineral exploration.

Situationskarta
öfver
Nordiska Grufaktiebolagets
Kopparmalmsförekomster
vid
Nipperfjord.

Figure 9: First mining cartography of the site, established by Nordiska Grufaktiebolaget around 1905.

Source: Direktoratet for mineralforvaltning, archive ref. *BVK10364*, <https://www.dirmin.no/files/bibliotek/BVK10364.pdf>

Norway's persistent pursuit of independence from past unions influence makes me wonder if this later became grounds of not joining the European Union after its establishment following the end of the second world war? Norway is in the European Economic Area (EEA) but not the European Union (EU) because it chose not to join the EU after a 1994 referendum, instead opting for the EEA agreement to access the EU single market while maintaining sovereignty outside EU political structures. The EEA includes EU countries plus Iceland, Liechtenstein, and Norway, granting free movement of goods, services, capital, and people without full EU membership.

Fieldnote intermezzo, 6 July 2026: from Tromsø to Kaaresuvanto/Karesuando, driving from the ancient Lyngen glacier down toward the slow, meandering border river.

It is a warm day in Tromsø; the sun reflects from the sea onto the shimmering sweat on my forehead, return back to sender. Following the coastline, the turns of the road resemble the rocking to suit a restless child. The salt of the sea expands to a tear. Sheltered by the mountains and guided by the valley flows – this is where I feel at home.

The E8 follows from Tromsøysundet toward Ramfjorden, Sorbotnelva, Lavangselva, into Balsfjorden, Nordkjosbotn, Nordkjoselva, Storffjorden, and finally to Skibottn, where we turn into Skibotndalen.

Here the swinging rocky roads quickly evolve into a long road straight ahead. We make our way down from the cliffs and waterfalls to a tree-free wetland. Nordlysvegen turns into a border checkpoint, into a Finnish Santa town. It is strange to see different administrations handle tourism so differently. The border breaks both nature and culture in a very sterile administrative manner. Nothing really happens here, but everything seems to change regardless. We continue the long road along the river toward the border town of Kaaresuando. The only place in the long stretch of 100 km since crossing the border from Norway into Finland where we can cross the river that has guided us so far. Here we enter Sweden. No checkpoint, just a sign and some flags, and we come to the realisation that we returned to our original time zone that apparently changed by passing through Finland...

Drawing together Norway’s historical path towards independence with my own experience of crossing these permeable borders, I would like to turn to the Nussir project’s entanglement within this very matrix of border politics. This context has direct implications for the requirements and privileges associated with Nussir’s Strategic Project status. Though situated in northern Europe, The Nussir copper mine is part of the shortlisted Non-EU Strategic Project (see Figure 10) under the CRMA.

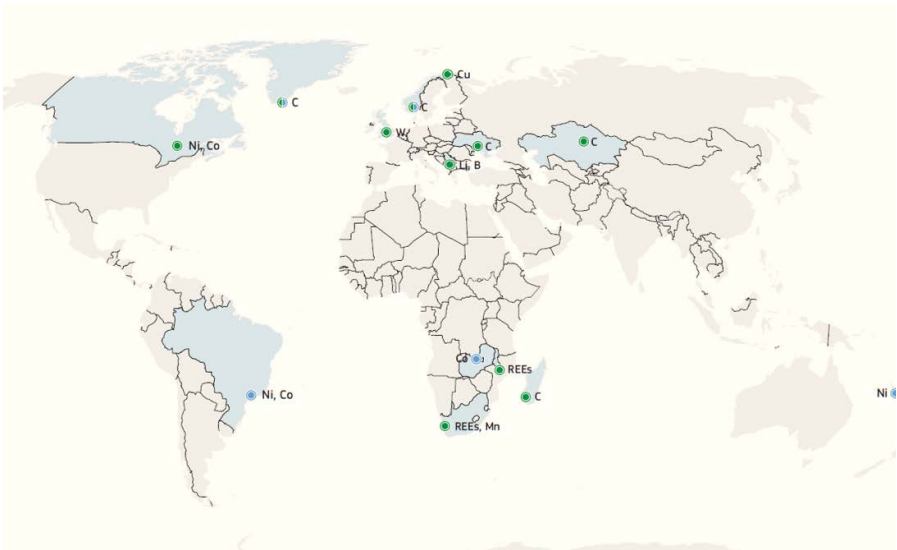


Figure 10: Map of Non-EU Strategic Projects designated under the Critical Raw Materials Act.

Source: European Commission (2025). *Strategic projects: Selected under the Critical Raw Materials Act 2025*, p. 11.

Unlike projects within the European Union, which are intended to strengthen domestic extraction and reduce the Union's reliance on third-country supply, Non-EU Strategic Projects extend this supply strategy beyond the EU's territorial borders while remaining subject to specific conditions under the CRMA. This difference entails a couple of regulatory requirements that risk being overlooked or obscured by Norway's geographic orientation in Northern Europe and by the economic benefits it derives from its EEA agreement. As a non-EU listed project, it is explicitly required, under article 7(1)(h) of the CRMA, to submit a plan to improve the environmental state of affected sites after exploitation, with the aim of restoring previous ecological conditions. Yet in my remote-sensing journey through the byzantine world of Nussir's planning bureaucracy, I found no evidence of such a plan, no vision for genuine restoration.

Across more than 120 years of extraction, there has never been a comprehensive reckoning with what these operations have left behind; I find little justification, therefore, to believe that the new owners will break with this tradition of neglect. Archival footage from the early 2010s captures CEO Øystein Rushfeldt energetically rebranding tailings disposal with the more palatable term "deponi," seeking to soften public perception (Nussir ASA, n.d.). The original video has since vanished from the internet, surviving only in fragments within a documentary (Harald Einarsson 2013). In a 2022 interview extolling the mine's purported longevity, Rushfeldt envisioned operations continuing for fifty to a hundred years, assuming, of course, that production remains within the generous bounds of a two-million-tonne annual tailings licence (Mining Green, 2022, 35:49).

The only document that even approximates the restoration plan mandated by Article 7(1)(h) is the avslutningsplan (closure plan) found in Driftplan Nussir version 9, published on 1 October 2025, after the strategic status had already been granted. From my perspective as a landscape architect, this plan is deeply inadequate: it offers little in the way of substantive restoration. There are no

detailed drawings, no actionable timelines, and the proposed “flattening and planting” are presented as straightforward tasks when, in reality, such operations are anything but simple, particularly after entire ecosystems have been erased and would require immense investment and expertise to recover. The document lacks a planting scheme, omits any consultation with those who might restore reindeer grazing grounds, and provides no schedule for implementation; it is, at best, a loose assemblage of intentions, I cite from its source:

- *Existing fences around the Ulveryggen open-cast mines will be maintained; ventilation shafts and other openings to the surface will be permanently secured, and access tunnels fitted with drainage openings, with inspection access assessed separately.*
- *Surface facilities will either be transferred to the landowner or permanently secured and locked.*
- *The emergency shelter and surface ventilation system connected to the ventilation shafts will be removed.*
- *Once operations have ceased, the waste tip at the top of Ulveryggen will be levelled and made accessible for reindeer herding.*
- *The waste rock tip will be levelled and blended into the landscape, with planting carried out on an ongoing basis after use ends.*
- *Rock cuts will be cleared and permanently secured.*

(Bjørnstad & Grane, 2025, p. 47)

When I compare this closure plan to its predecessor, Driftsplan version 5 from 2017 (Rushfeldt, 2017), the latest earlier version I could locate, something stands out to me: while the development plans have grown more sophisticated and ambitious, the closure provisions remain virtually unchanged, simply carried over from one version to the next. This repetition raises a fundamental question about authenticity: is this a genuine plan, or merely a performative gesture, a superficial box-ticking exercise with no real substance? The act of copy-pasting is, in itself, the argument: this was never a plan truly designed for the CRMA or with genuine environmental concern at heart, but rather a perfunctory demonstration that the company had “considered” restoration, with no actual roadmap for reparation...

Nussir, a vision for a mine financed and politically supported by a union to which Norway does not belong, owned by a foreign corporation, on land once called Ripperfjord: now, in my plain assessment, “rip-off fjord”.

IV. RIEHPUVUOTNA

Where, in fact, did the names Ripperfjord and, subsequently, Repparfjord originate? These designations were likely appropriated, mirroring the broader patterns by which land, culture, and language have been taken from the Sámi people. Flattening the understanding that underlies its traditional placenames, Riehpuvuotna – Riehpovuonmohkki – Riehpovuonmohkejavri – Riehpovuonjohka, which are keys to a systemic understanding of an entangled landscape, revealing webs of relationship, history, and meaning. They guide one from the fjord into the valley, along the rivers and lakes. They resist reduction to simple resources and instead invite us to see land as a tapestry of interwoven relations (Kartverket, 2020; Mazzullo & Ingold, 2008).

What can be learned from the notion that placenames influence placemaking in this argument against the Nussir mining project? Analysing the project (both in its own context and through the CRMA's perspective) alongside Norway's Truth and Reconciliation Commission, which reported in June 2023 on the Norwegianisation of Sámi, Kven, and Forest Finn communities, reveals deep connections between Repparfjord's extractive practices and Sámi land and self-determination struggles. The mine's delayed start, initially set for 2018, results from grassroots opposition. While the CRMA claims to consider Indigenous impacts, it limits this to basic consultation and treats these impacts as nearly unavoidable, reflecting a sacrifice-zone approach. Its language around reducing environmental harm redefines displacement and diaspora as "involuntary resettlement," a problem to be avoided through promises of quality jobs and "meaningful engagement" with local communities (European Parliament & Council of the European Union, 2024, art. 6(1)(c)).

Yet consultation is not consent. The reindeer-herding districts affected by the proposed mine have never agreed to its construction (Natur og Ungdom, n.d.), and the Sámi Parliament has repeatedly

voiced its objections (Naturvernforbundet, 2019; Sametinget, 2011). The CRMA, rather than seeking genuine agreement, appears to transform this requirement into an ethical checkbox, an observation which I explored at length in the essay, “Calculating Criticality.” There, I argued that situated knowledge is systematically excluded in favour of a narrower, technocratic definition of scientific legitimacy (Guigulé, 2026).

This rethinking of agency, authority, and sovereignty in environmental governance is, I believe (and have sought to argue throughout the full extent of my investigation into the Nussir case here at the Centre for Research Architecture), precisely what is missing from prevailing sustainability strategies: an authentic recognition of epistemologies beyond the Western scientific paradigm. I acknowledge that such recognition is incomplete, and remains a work in progress, one that this essay can only gesture toward, not fully achieve.

My practice as a landscape architect, and, above all, the previous collaborations within Sápmi it brought about, have, as mentioned before, revealed the depth of insight held within placenames. To wrap up the dissertation, I would like to employ placenames as a counter-method, a way to resist the reduction of the landscape to a mere resource. A conversation on 23 July 2026 with frontline activist Rebecka, who raised concern about Blue Moon Metals/Nussir ASA’s application to electrify new mining initiatives, led to a critical distinction at the heart of the CRMA application: only the plans for the Nussir deposit have been formally submitted and recognised (see Figure 11); the Ulveryggen deposit, by contrast, lies outside the CRMA’s official purview.



Description of project

The Nussir project is an extraction project located in the north of Norway. It aims to extract copper from a proposed underground mine at the Nussir deposit, with mining conducted by long-hole open stoping. Work on planning processes, engineering and permitting has already started in 2009, and has successfully led to a zoning plan, tailings permit, and mining concession being granted. The expected production of this project is estimated by the project promoter at 15.000 tonnes of copper, which can be used for the production of high-grade copper concentrate.

Benefit for the EU and Norway

The project promoter's aim is to conclude long-term offtake agreements with identified EU based offtakers for 100% of the production, thereby contributing to the supply of copper in the EU. This source of copper will come with come with considerably less emissions than comparable sources because of the relatively short distance between Norway and Europe and the intention of the project promoter to establish a fully electrified mine with zero emissions. Furthermore, this project creates local employment opportunities, with the expectation of direct employment of around 250 persons from Norway and other European countries.



Project Name:
Nussir

Project Type:
Extraction

Strategic Raw Material:
Copper

Project Promoter:
Nussir ASA

Project Country:
Norway

Estimated Starting Date of Production:
2027

UNFC Classification:
E1.1 // F1.2 // G1

Website of the Strategic Project:
www.nussir.no

Figure 11: Nussir's Strategic Project title profile, confirming that the Nussir deposit, not Ulveryggen, is what the CRMA recognises.

Source: European Commission (2025). *Strategic projects: Selected under the Critical Raw Materials Act 2025*, p. 69.

The concern is that Blue Moon Metals may use the CRMA's financial support to fund activities beyond the Act's explicit scope. Although Ulveryggen has been omitted from the new Driftplan's title, it persists in the project's technical and operational blueprints: Adam Wheeler's 2025 Technical Report references both Nussir and Ulveryggen; the company still holds the extraction licence for Ulveryggen (Wheeler, 2025, p. 6); and crucial infrastructure, such as the conveyor belt transporting ore through the Ulveryggen Tunnel to the Øyen processing plant, links the sites (Wheeler, 2025, p. 24). Even within Wheeler's report, contradictions emerge: one statement claims "there are currently no plans to extract from Ulveryggen" (p. 7), while a later caption (Figure 19, p. 30; reproduced below as Figure 12) indicates planned activities for a possible future Ulveryggen project.

As the introduction has shown, the CRMA's financial support is ostensibly intended to stabilize Nussir's precarious finances, but there is a very real risk that the company will exploit this opportunity to its fullest, extending well beyond the Act's intended boundaries. Although this strategic overreach may be largely camouflaged within the operational plan, it is readily apparent across other company documents, including the electrification plan (NVE, 2024). I am deeply concerned that Blue Moon Metals intends to channel funds secured by its strategic designation into activities not legitimately covered by that status.

Figure 12: Figure 19 from *Driftsplan Nussir* version 9, showing planned surface activity (blue) alongside areas relating to a possible future Ulveryggen project (orange), near the Øyen processing plant.

Source: Bjørnstad & Grane (2025), *Driftsplan for Nussir Versjon: 09*, p. 31, <http://www.gruve.info/driftsplan2025.pdf>



V. CRMA TO FILL NUSSIR'S FINANCIAL BOTTOMLESS PIT

What frustrates me most, working through this material, is how difficult it has been, contrary to the Act's stated commitment to transparency, to establish which documents were actually submitted and assessed as part of Nussir's strategic-project application. The process is opaque by design, scattered across a patchwork of company filings, press releases, and government registers. My findings are necessarily shaped by what could be pieced together from these fragmented sources, and the opacity itself is part of the story: a regulatory architecture that claims openness, yet in practice obscures accountability and blurs the boundaries of responsibility.

Reflecting on the full arc of this research as a landscape architect, three central claims emerge. First, environmental impact assessment, as currently practiced in the European context, is no longer fit for purpose. It is an instrument rooted in abstraction, ill-equipped to grapple with the complexity of lived landscapes, and too easily gamed by applicants whose interests are fundamentally economic rather than ecological or social. What is needed is a new paradigm: one that centres situated knowledge, systems thinking, and a genuine dialogue with those who experience the consequences of extraction firsthand. Second, the responsibilities owed to so-called "third countries" like Norway, which are intimately bound to EU interests yet formally outside its governance, require far greater scrutiny. The Nussir case exposes how regulatory "loopholes" and the ambiguities of EEA membership allow projects to accrue the benefits of strategic status while sidestepping the full rigor of EU oversight and accountability. Third, what the CRMA labels as "strategic financing" is not neutral or inherently progressive: it is a tool that can just as easily become a vehicle for greenwashing, channeling public funds and political legitimacy toward projects that fail to meet even minimal standards of environmental justice.

Looking back at the long history of mining in Repparfjord, with its cycles of boom and bust, its shifting ownership, and the repeated conclusion that extraction was not only unprofitable but unsustainable, it is worth asking what would have become of the mine's planning if the CRMA had never existed. Would this law's absence have left the contested past visible and unresolved, or does its presence serve to legalise and erase the very conflicts it claims to address? In this sense, the CRMA does not just regulate the future; it rewrites the past, smoothing over resistance and dissent in the name of urgency and transition.

It is crucial to clarify, finally, what I mean by greenwashing in this context. The issue is not that the application makes any substantial effort to negotiate with local communities or propose even a flawed "greener" model of extraction; such an attempt, however imperfect, would at least acknowledge the legitimacy of local concerns and environmental demands. The project was never truly green, and no title can bestow that legitimacy retroactively; what changes with the granting of strategic status is not the substance of the mine, but the strategy by which its financial ambitions and public image are advanced. That, ultimately, is the central distinction this dissertation has sought to make: not whether Nussir is "strategic" in the way the CRMA defines it, but how the language of strategy is mobilised to serve financial, political, and extractive agendas at the expense of genuine sustainability and justice. The case of Nussir is not an anomaly, but a warning: that the rush to secure critical raw materials, if pursued without rigor, transparency, and an honest reckoning with past and present harms, risks perpetuating the very injustices the green transition is meant to remedy. True sustainability will only be possible when the voices and knowledges of affected communities, and the histories embedded in the landscapes themselves, are given more than token recognition, when they are made central to the definition of what counts as "strategic" in the first place.

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