NEOCOLONIALISM IN THE NAME OF THE GREEN TRANSITION

Rare Earths Mining in Madagascar

ODG
OBSERVATORI DEL DEUTE EN LA GLOBALITZACIÓ

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Critical Minerals Observatory

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NEOCOLONIALISM IN THE NAME OF THE GREEN TRANSITION

Rare Earths Mining in Madagascar

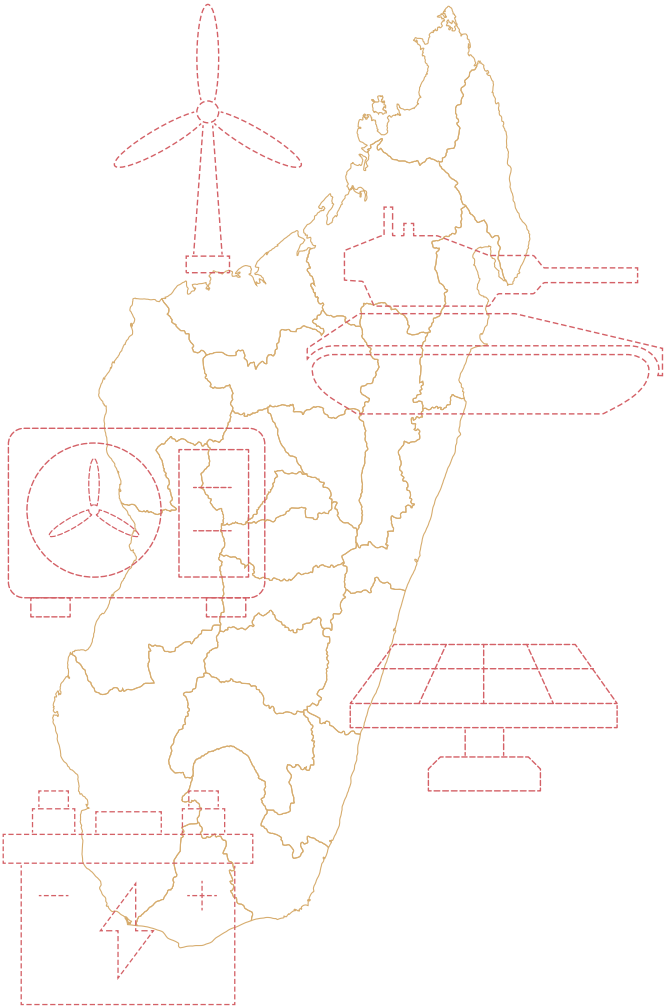
Foreword

As the climate crisis accelerates, the green transition has become something of a catchphrase. At the same time, polarisation is rising along with the advancement of digital capitalism, and securitization is back on the agendas of the world powers. In this context, and in a world with finite resources, control of raw materials is key. This report arises from the perceived need to shed light on both who stands to benefit and who pays the price of the new rush for raw materials, and the global dynamics accelerating these processes in the name of the transition to a "green" and low-carbon world. It aims to build upon previous work by the Debt Observatory in Globalisation (ODG) in producing a critical analysis of the energy transition and its corporate capture (for instance, lithium mining in Chile and Argentina[i]), as well as work carried out with international allies under the umbrella of the Rare Earth Elements Group. Specifically, it focuses on three cases identified in the Rare Earths Impacts and Conflicts Map published in 2023 together with the EjAtlas, the Institute for Policy Studies and CRAAD-OI[ii].

In July 2024, two members of ODG travelled to Madagascar on a fact-finding mission to deepen understanding of the experiences of communities on the frontline of potential Rare Earths mining projects in the country. This fieldwork was done in collaboration with (and would not have been possible without) the local organisation CRAAD-OI (Research and Support Centre for Development Alternatives – Indian Ocean). The information contained in this report is based on more than 18 interviews with communities, traditional leaders, activists and researchers from the country.

In the first section, we outline the global reality of Rare Earth Elements (REE) in the context of the so-called "green" transition and the factors lying behind the new push for raw materials. The following section centres on the territories bearing the burden of rare earth extraction in Madagascar, elucidating on how the quest for REE is impacting local peoples and emerging forms of resistance. Thereafter, common patterns are identified in the three cases studied. In section four, the transnational companies behind the projects are identified. The development of resistance against the mining projects is explained in section five. Lastly, the report closes with a number of final reflections.

This report aims to contribute to the conversation about what a truly just global socio-ecological transition could look like. It shines a spotlight on the contradictions of a system that purportedly strives to bring down emissions without tackling global inequalities. What interests lie behind this new rush for raw materials? Is it the planet, or capitalism on a new stage?



List of Acronyms

CRAAD-OI:
Centre de Recherche et d'Appui pour les Alternatives du Développement Durable – Ocean Indien (Research and Support Centre for Development Alternatives – Indian Ocean)

CRMA:
Critical Raw Materials Act

CSR:
Corporate Social Responsibility

EU:
European Union

EVs:
Electric Vehicles

FARM:
Femmes en Action Rural de Madagascar (Women in Rural Action Madagascar)

FI:
Fieldwork interviews

IEA:
International Energy Agency

IMF:
International Monetary Fund

NdPr:
Neodymium and Praseodymium

ODG:
Debt Observatory in Globalisation

QMM:
Qit Madagascar Minerals

REE:
Rare Earth Elements

RE Carbonate:
Rare Earths Carbonate

RJDD:
Réseau de Jeunes pour le Développement Durable (Youth Network for Sustainable Development)

USA:
United States of America

TREM:
Tantalum Rare Earth Malagasy

WB:
World Bank

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> *Lithium and Rare Earths will soon be more important than oil and gas"*
>
> Ursula Von der Leyen, president of the European Commission. September 2022[iii]

> *Remember the rare earth, where we have to go to China? [...] We have sites that are phenomenal [...] and we can't use them because of environmental protection. But we're going to end that very quickly, as soon as I get into office"*
>
> Donald Trump, 2024[iv]

> *Rare earth elements may see three to seven times higher demand in 2040 than today. [...] Magnet Rare Earths have the highest geographical concentration for refining of all energy transition minerals"*
>
> International Energy Agency, 2024[v]

Rare Earths in the spotlight

> *The energy system is moving at speed into the Age of Electricity”*
>
> International Energy Agency, 2024[vi]

> *REE are the material basis for the hardware of the global technological modernity: from the darkest and most dystopic to the greenest and greatest”*
>
> Julie Klinger, 2018[vii]

> *What do electric vehicles, smartphones, wind turbines and F-35 have in common? They all require materials known as Rare Earth Elements”*
>
> Energy Fuels REE production video, 2021[viii]

1. Rare Earths and their role in the "green" transition

> *Decarbonising of the global economy is going to create the greatest investment opportunity of our lifetime"*
>
> Larry Fink, CEO of BlackRock, 2022[ix]

Mining is a multi-million dollar industry. Investment is risky, but profits can be huge. These profits are concentrated in the hands of a few[x]. Over recent years, several minerals have been deemed critical for the green transition away from a fossil-fuel based economy by international institutions. This proposed transition is based on technological development and does not renounce economic growth. Rather, it is a new strategy for the pursuit of unlimited growth. However, technological development has a material basis. Critical minerals include lithium, copper, cobalt, nickel, graphite and Rare Earths, among others.

Unknown to many, Rare Earths are frequently mentioned in political discourse. In fact, they have been listed among the critical (and also strategic) minerals by the European Union for what they call the green and digital transition, as well as for defence and aerospace. The USA and China have done similarly. To understand the criticality of Rare Earths, it is important to look at their end uses.

Rare Earth Elements are a collection of 17 physio-chemical elements grouped together because of their similar magnetic and conductive characteristics. Despite the name, they are not rare, but are rather quite common in the Earth's crust. They are divided into light and heavy REEs, based on their atomic weight (See Figure 1 below).

Figure 1.
Rare Earth Elements in the periodic table, divided into heavy REE and light REE

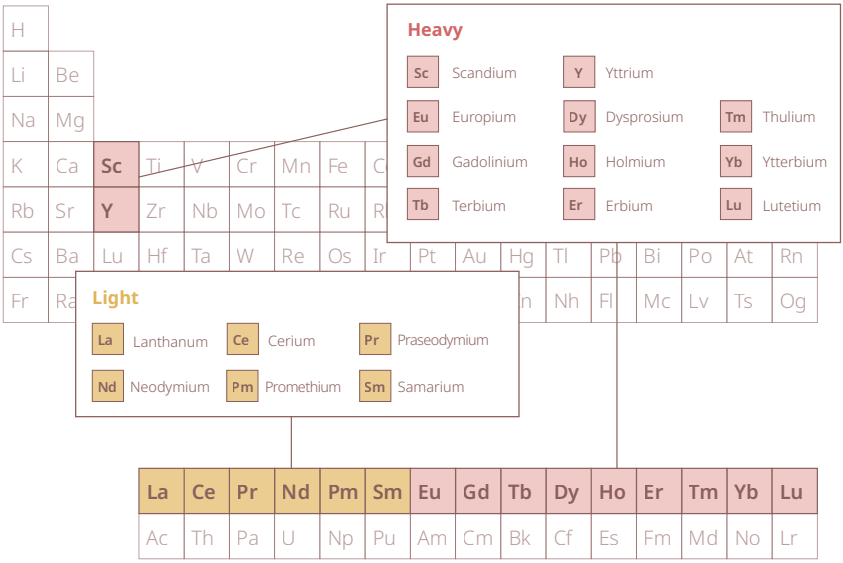
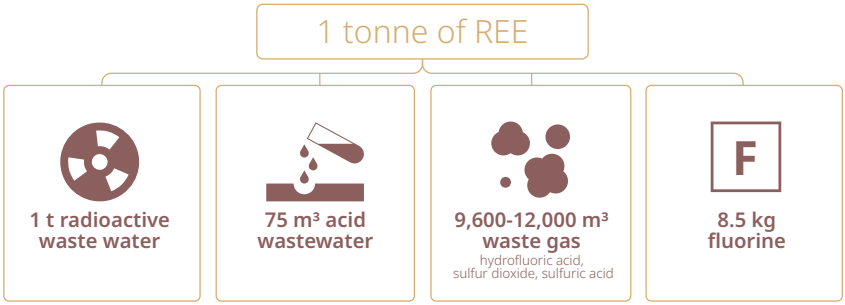


Figure 2.
Pollution derived from REE extraction, data from Klinger 2018[vii]



In spite of their potential abundance, their exploitation and separation is technically complex: each deposit has its particular characteristics, and in order to separate the different elements, several chemical processes are necessary[vii]. The most commonly exploited deposits are carbonatite-associated deposits, ion-adsorption deposits, alkaline igneous rocks (including alkaline granites), and placer deposits (including monazite)[xi]. Ionic clay deposits are particularly interesting due to their cheaper extraction costs. Extraction methods include in situ, heap and in-tank leaching. However, REE concentration is typically lower than that of hard-rock deposits. They form in subtropical regions with warm and humid weather[xii].

Given that they are often mixed with radioactive elements[1], handling REE in compliance with existing environmental regulations – even where standards are low – increases production costs significantly[v]. It also poses severe risks for workers and populations living close to the mining or processing site.

The first REE were discovered in the second half of the 18th century, and all 17 were categorised as a group in the late 20th century. It was for industrial purposes that they started to be widely used: they solved the problem of lighting expansive industrial areas at a low cost[2] during the long dark hours of winter in Northern Europe. This enabled production to continue after dusk[vii]. As such, they contributed to prolonging the productive time of factories during the expansion of industrial capitalism.

Nowadays, Rare Earths have a variety of uses. Used in small amounts – for which they have even been compared with vitamins – they can produce unique results when added to other materials and even substitute other critical minerals in the production of certain technologies.

1 According to the IEA, "Processing a kilogramme of rare earth oxides can produce close to 1 kilobecquerel of uranium-235 (U-235) equivalent to radioactive elements."

2 They have incandescent properties that were first applied as mantles (lamps) at the beginning of the 20th century.

Figure 3.

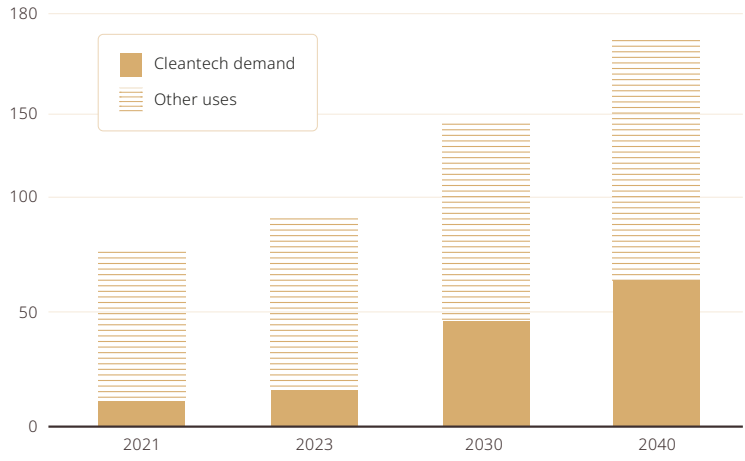
REE uses. Own work based on IEA 2024[v], Klinger 2018[vii], SCRREEN 2023[xi], NETL 2024[xiii], USGS 2014[xiv].

Element		Uses	
Pr	Praseodymium	Cruise missiles, smart bombs, drones, primary elements for magnets (EVs and wind turbines), ceramics, autocatalysts, batteries, glass, polishing powders, metal.	Permanent magnets
Nd	Neodymium	Primary elements for magnets, electric motors (EVs), autocatalysts, ceramics, metal and glass, hybrid fuel cell batteries, water and wind turbines, solar panels, computer hard drives, speakers, lasers, smartphones, earbuds, cruise missiles, smart bombs, drones.	
Tb	Terbium	Computers, phones, fluorescent lamps, fibre optic cables and repeaters, additives to enhance the performance of magnets, lighting, sonar/radar/ radiation detection devices, X-ray, cruise missiles, smart bombs, drones	
Dy	Dysprosium	Additives to enhance the performance of magnets	
Sc	Scandium	Aerospace, bicycle frames, baseball bats, handguns, lamps, orthodontics, oil refining, fuel cells	
Y	Yttrium	Computers, phones, fluorescent lamps, ceramics, automotive catalysts (cars), metal, glass, sonar/radar/radiation detection devices, X-ray, televisions, lasers	
La	Lanthanum	Stabilisers in catalytic compounds, autocatalysts, fluid cracking catalysts, batteries, glass and ceramics, polishing powders, metal, petroleum refining	
Ce	Cerium	Autocatalysts, water purifiers, stabilisers in catalytic compounds, polishing powders, glass and ceramics, batteries, metal.	
Pm	Promethium	Lights	
Sm	Samarium	Magnets (EVs), medical and optical applications, cruise missiles, smart bombs, drones	
Eu	Europium	Lighting, sonar/radar/radiation detection devices, X-ray, light bulbs, panels, televisions	
Gd	Gadolinium	Magnetic resonance imaging, magnets, metal, others	
Ho	Holmium	Ceramics	
Er	Erbium	Glass, lighting	
Tm	Thulium	Ceramics, surgical lasers, anti-counterfeiting on bank notes	
Yb	Ytterbium	Ceramics	
Lu	Lutetium	Lighting, others	

> *Electric motors and generators driven by rare earth permanent magnets represent the most energy-efficient devices developed so far, making energy savings of about 20-40% compared with ordinary motors. Moreover, the addition of small quantities (1-2 kg) of these magnet rare earth elements in a motor can dramatically reduce (60-80 kg of lithium, nickel, cobalt) the requirements for other critical minerals needed for an EV."*
>
> IEA, 2024[v]

Permanent magnets are necessary for wind turbines, the engines of electric vehicles (EVs) and certain kinds of solar panels[3]. In fact, they are also used in fossil-fuel powered technologies such as conventional cars and oil refineries[xiii]. They are also crucial for digital technologies such as screens, hard drives and fibre optic cables, (among others) and military equipment (drones, missiles, communications systems). Demand is expected to increase in the coming years and double by 2040 to meet net zero targets[xv]. While a significant share of this increase is due to the implementation of green policies, demand from other sectors such as defence is also expected to rise, stretching it further (see Figure 4 below).

Figure 4.
Adapted from IEA 2024[v], depicting current and projected demand in kilo-tonnes in "Announced Pledges Scenarios".



3 Technologies exist for the production of solar panels without REEs.

1.1. The quest for Rare Earths

In recent decades, the rare earth supply chain has become more and more concentrated in Chinese enterprises. Notably, the largest REE mine in the world is located in Bayan Obo. Moreover, REE refining for permanent magnets represents the greatest concentration of all critical minerals[v]. However, this has not always been the case: the production of rare earths shifted between regions throughout the 20th century. Initially mined in India and Brazil and controlled by German and Austrian companies, it moved to Austria and the USA, later relocating to China[vii]. Currently, the majority of extraction takes place in China (70%), as well as the USA, Australia, Myanmar, Thailand, India, Russia and Madagascar. In addition, Brazil, Greenland, Vietnam and South Africa also have reserves[xvi]. It is important to note that, in many instances, REE are extracted as a by-product of other minerals and are not always declared, complicating their traceability.

The International Energy Agency (IEA), created 50 years ago in the aftermath of the OECD oil crisis in 1974 and currently representing 31 members – mainly from the Global North – and 75% of global energy demand[xvii] has also pointed to the criticality of these minerals and has included them among the key energy transition minerals analysed in their annual report, in addition to copper, lithium, nickel, cobalt and graphite[v]. Specifically, it has analysed neodymium, praseodymium, dysprosium and terbium as the group used to produce permanent magnets. According to the IEA, the supply risk to the selected REE is high due to rising demand and challenges in securing supply.

Figure 5.
Top three producers of REE. Adapted from IEA 2024[xviii]

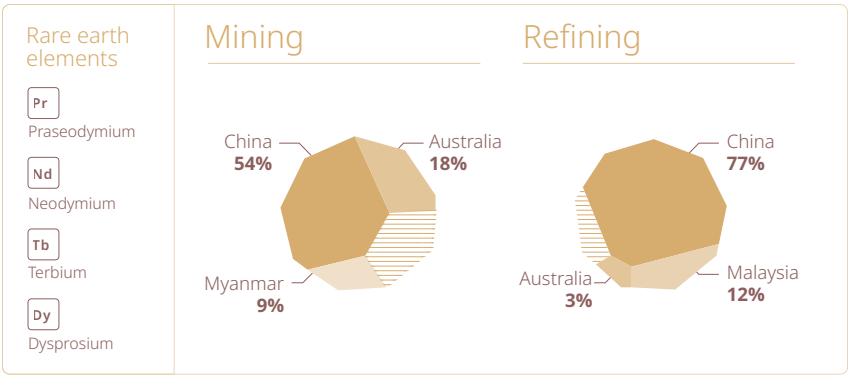
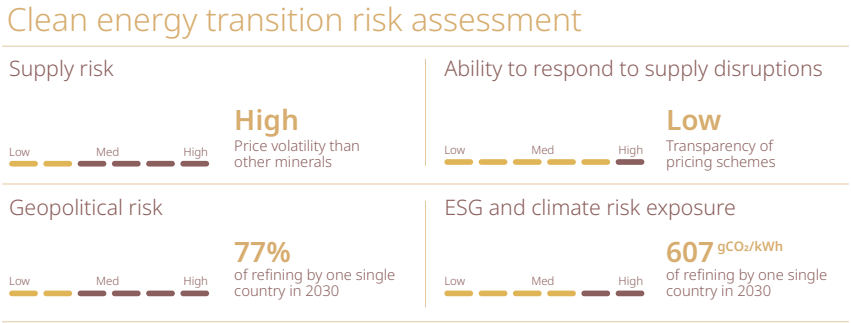


Figure 6.
REE risk assessment for the clean energy transition. Adapted from IEA 2024[xix]



China not only controls most of the extraction but also the refining and processing of these crucial minerals globally. There are only four processing plants of light REE outside of China, while all processing capacity for heavy REE is located in Chinese territory[xv]. Nevertheless, this may be challenged: western powers are set to reverse Chinese control of the REE supply chain. To name an example, in 2011, potential Chinese investment in the Australian company Lynas was blocked. Lynas currently extracts REE in Malaysia and processes them in Australia, and controls the only supply chain of REE independent from Chinese capital[xx].

More recently, the USA and the European Union have taken further steps to challenge China's hegemony, not only in terms of REE but also other critical materials. At the same time, China is also willing to defend its claim[4]. In the race for raw materials, Rare Earths pose a serious challenge to the EU: high market concentration – especially of Rare Earths – implies significant dependence[xxi]. Through the Inflation Reduction Act, the USA has encouraged domestic mining of critical minerals[5] and green tech industries. Even the owner of Tesla (and many other companies), Elon Musk, went so far as to announce that they would strive to produce electric vehicles which are "rare earth-free"[xx]. In the EU, the recently-launched Critical Raw Materials Act (CRMA) dictates raw materials policy, detailing targets and the plan to achieve them[6]. However, Member States know they cannot reach the targets on their own: besides mining in their territories, they aim to secure providers without links to China. To this end, the EU has launched a platform for the joint purchase of raw materials[xxii].

4 Bans on Rare Earth exports have taken place on several occasions. To name a few, in December 2023 https://www.asahi.com/ajw/articles/15091623 or November 2024 https://www.aljazeera.com/news/2024/12/4/tech-wars-why-has-china-banned-exports-of-rare-minerals-to-us.

5 This also includes a "tax credit" for certain minerals such as REEs and economic incentives under the Defense Production Act to encourage domestic sourcing.

6 The CRMA also lists Critical and Strategic Minerals, including REE in both lists. In fact, REE have been listed as critical by the EU since 2010.

1.2. A bloodstained story

Rare Earth Elements produce significant impacts along the supply chain during their extraction, refining, waste management and products disposal. Most of the negative impacts are related to radioactivity, which poses serious risks for the health of people and the environment. In fact, the displacement of production to China and the closure of the Mountain Pass mine in the USA can be explained partly by the serious environmental impacts resulting from Rare Earths operations there. Socio-environmental impacts were shifted to China following the "toxic division of labour" that also characterized other industries[v].

The extraction, refining and disposal of REE has been contested worldwide, as shown in the Rare Earths Impacts and Conflicts Map[7]. The unfair distribution of socio-environmental burdens related to the new rush for raw materials is depicted in the specific case of REE: the map shows how in at least 28 locations around the world, REE projects are causing social unrest due to the threats they pose to local communities, a lack of transparency and participation in decision-making, as well as human right abuses and repression by companies and states.

Image 1: Mandromondromotra River, affected by the Rio Tinto Mine, in Toliara, Madagascar.

7 A featured map published in the EjAtlas, an online interactive platform depicting socio-environmental conflicts all over the world. For the Rare Earths one, see Rare Earth Elements Impacts and Conflicts Map. https://ejatlas.org/featured/rees-impacts-conflicts-map

2. Who bears the burden of extraction? The case of Madagascar

> *The geography of rare earth extraction is inseparable from geographies and vulnerability. It is far easier to prospect for rare earths in 'remote' regions populated by already-marginalized communities where legal regimes are either ambiguous or lacking teeth"*
>
> Klinger, 2018[v]

> *I love my country but I am always ashamed of my government"*
>
> FI[8]

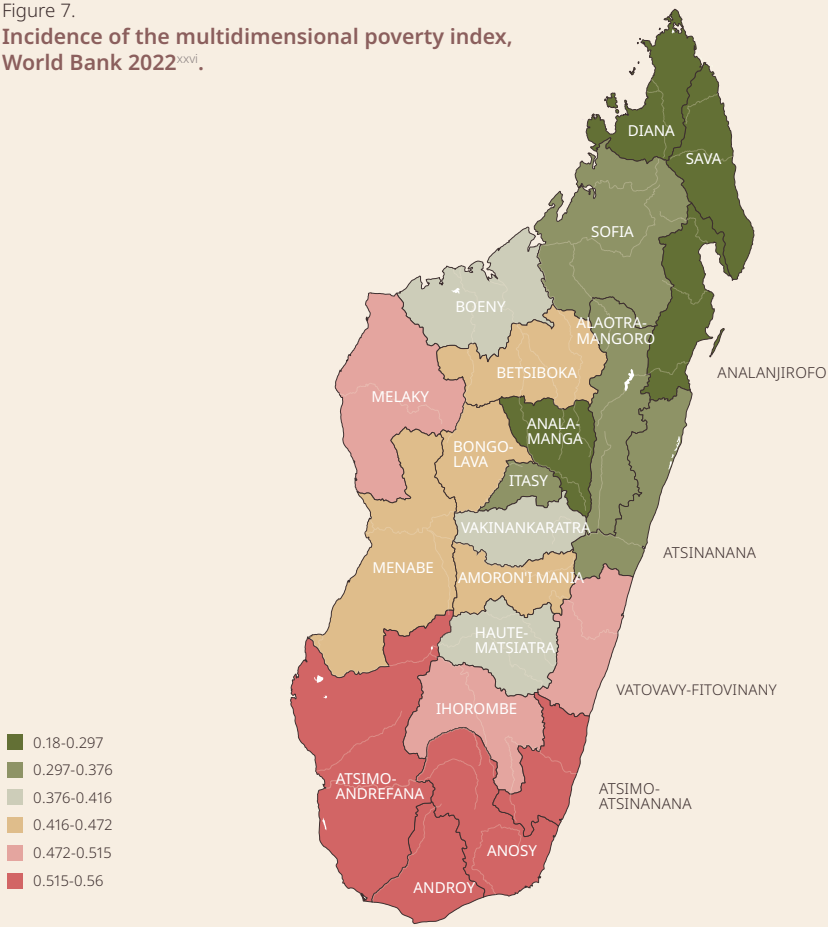
Image 2:
Meeting with Ankotsopo community, in the Ampasindava Peninsula, in the north-eastern part of the country.

8 All fieldwork interviews appear as "FI" to keep the anonymity of the respondants.

Understanding the Malagasy context

Madagascar is the fourth-largest island in the world and has a population of 30 million people. It enjoys a strategic location for trade in the Indian Ocean, between the African continent, China and Australia. The country is rich in natural resources and biodiversity. At the same time, around 80% of the population[xxiii] lives on less than 2.15 dollars a day[9], and it is currently ranked 5th in the World Bank's multidimensional poverty rate[10] [xxiv]. Poverty is concentrated in rural areas, where about 80% of Madagascar's population live[xxv].

Figure 7.
Incidence of the multidimensional poverty index, World Bank 2022[xxvi].



9 The International Poverty Line.

10 Taking into account living conditions and access to basic services.

Food insecurity, defined as the lack of physical and economic access to sufficient and nutritious food that meets people's dietary needs for an active and healthy life, affects almost a third of the country's population. This is especially aggravated in "the Deep South"[xxvii]. Furthermore, around five million people in the country are affected by disasters such as cyclones, food scarcity, and droughts, which further complicate access to food. The frequency and intensity of these events is projected to increase as global warming intensifies[xxviii].

The economy is sustained by agriculture, which represents almost one fourth of the country's GDP[xxiii]. The country exports vanilla, coffee, cocoa, cloves and lychee, agroforestry crops in high demand[xxix]. These crops are mostly produced by small farmers[xxx]. Agriculture is the main source of livelihood for 85% of the population. This is especially so for women, who produce 80% of the country's food crops[xxxi].

Other important sectors for the economy are construction, transport, trade and telecommunications[xxiii]. The vast majority of the population is employed in the informal sector (95%), with this rate being higher still for women. The contribution of the informal sector to the country's economy has been estimated at 43% of GDP by the IMF[xxvi].

In recent years, economic growth has stood at an annual average of 3.5%. Any growth, even if slow, has been attributed by the World Bank to the mining sector. Investment in mining has increased over the last decade. However, this growth has not been reflected in reduced poverty figures.

According to the Global Debt Monitor 2024[xxxii], Madagascar is currently in a situation of critical indebtedness, and this is worsening. Debt represents 23% of public service payments to external creditors as a percentage of government revenue. Tackling the climate crisis will only exacerbate the country's indebtedness, since incrementing public spending in mitigating climate-related disasters will push governments to increase their loans[11].

Indeed, the country is already experiencing the impacts of global warming. Intense drought periods have hit the country, while the frequency of cyclones and related flooding is on the rise[xxiii]. Its location, together with the socio-economic situation, makes it highly vulnerable to climate change-related events, ranking 13 on the World Risk Index 2024[xxxiii].

Droughts and extreme weather events are forcing entire populations to migrate, especially from the South. This has sometimes caused conflict between ethnic groups. Movement between rural areas is the most common due to the prominence of agriculture as the main employment

11 To better understand the vicious circle between climate and debt, see https://www.eurodad.org/debt_climate_connection

sector, but there is also migration to the main urban centres[xxxiv]. In the face of a changing climate and international policies to tackle it, the government has captured funding for reforestation, branding it as part of adaptation measures[xxxv].

At the same time, Madagascar's contribution to accumulated CO^2 emissions – and, hence, to global warming – is minimal, standing close to 0%. This is especially the case when it is compared to the USA, responsible for more than 20%[xxxvi]. At present, only 25% of the country has access to electricity[xxxvii], although there is a substantial gap between urban and rural areas, where access is significantly lower. The government claims to have the intention of reaching 70% electricity access by 2030. Electricity is generated through oil (46%), coal (19%) and hydropower (31%). The high cost of producing electricity from imported fuels such as coal and oil strains the already-indebted national energy company, Jirama. Consequently, power cuts are very frequent[xxxviii].

Image 3:
houses in Tolagnaro, in the south-eastern part of the country.

A dual political system: the official and the customary

Madagascar is a Republic with a semi-presidential system: the president is the head of state, and the Prime Minister is the head of the government. The current president is Andry Rajoelina, reelected in 2023 in an election marked by the lowest turnout in the country's history (46%)[xxxix] and the boycott of opposition parties. It is the president's third term (2009-2014, 2019-2023, 2023-present).

Opposition parties and grassroots organisations blame the government for corruption and misuse of public funds. Although the country is ostensibly a democracy, political rights and freedoms are limited. According to Freedom House[xxxvii], corruption remains an issue of concern, and the country's anti-corruption office does not prosecute or target the elites. Cases of note include the Minister of Justice Imbiki Herilaza, who was forced to resign in 2022 after a bribery scandal became public. In addition, Rajoelina's chief of staff was arrested in August 2023 during a visit in London for allegedly offering exclusive mining rights to the company Gemfields in exchange for lucrative payments. She was found guilty in May 2024[xl].

In terms of governance, the country is divided into 22 regions and 119 districts, which are organised hierarchically. Districts are further subdivided into autonomous communes and the smallest unit, the *fokontany.* Each fokontany has a community assembly (fokonolona), which consists of all adults living within the fokontany. The leader of the fokontany is chosen by the district's head.

In the rural areas of the country, both state and customary legal systems operate simultaneously and in coexistence, although they do not have the same executive power. In most instances, local customary gover-

Image 4:
church in the village of Mahatalaky, nearby Tolagnaro.

nance is based on the importance of clans (families with common relatives) and lineages (descendants of a common relative). Often times, the political authorities in the villages are the lineages' heads[xli]. Interviewees reported that, in some cases, the customary leaders have been coopted by the state.

An extensive territory with great diversity

> *"There are two different cultures: capitalism and Malagasy culture"*
>
> QMM former worker

Madagascar is a country full of contrasts. It has 22 regions with diverse climates, 18 official ethnic groups and one main language which has more than 20 dialects. In spite of being a French colony until 1960, only 20% of its population speaks French. The majority of the population identifies as Christian, but also practices ancestral traditions, such as ceremonies in sacred sites and the worship of their ancestors. In addition, the Muslim community represents around 3% of the population, having a stronger presence in the North[12].

One particular concept within Malagasy culture and traditions is what is known as *fady*, which means that something is taboo and forbidden. Fadys differ between each region and ethnic group. For instance, "dogs" are fady in the South, but not in other parts of the country. Respect for traditions and fadys is much more deeply-held in rural areas.

Cultural and geophysical contrasts must be understood in relation to the extension of the country and the lack of transport infrastructure to connect the different regions. The road network covers only 31,640,200 km[13] and is in a very poor condition. It is important to note that the country's population density is very low, around 52 inhabitants per km^2. This means that disproportionally long distances have to be covered to reach the most remote areas of the country. Since private car use is very uncommon, people in rural areas get around on foot, even for distances covering several kilometres, or use bikes, *zebu*[14] (carts) and *taxi-brousse* (the collective transport system, not affordable for everyone).

12 Some Muslim voices and local scholars estimate the Muslim population at 20-25%, according to the 2023 Report on International Religious Freedom: Madagascar, by the Us Department of State. See https://www.state.gov/reports/2023-report-on-international-religious-freedom/madagascar/

13 This is more than 30 times less kilometres of road per inhabitant than in Spain.

14 Zebus are a species of cattle common to Madagascar. Besides transport, they are widely used for dairy, beef and manure.

Mining for "development"

> *"Those who benefit [from mining] are mainly the state and certain groups"*
>
> Own translation, FI

The World Bank (WB) has called for mining investment to relaunch the Malagasy economy. It has spearheaded *Integrated Growth Poles,* a programme for pooling private investments in specific sectors to boost economic growth[15].

> *"The World Bank has constituted most of the degradation of this country. [...] They imposed austerity measures. [...] They only fund what they want to fund, not what we actually need"*
>
> Own translation, FI

The WB is pushing its own agenda[xlii] in the country. They forced the renovation of the Investment Code[xliii]. The new code broadens the scope for investors, and enables the government to declare projects as public interest. The Country Partnership Framework for the Republic of Madagascar, the WB's strategy to promote "resilient growth" in the country, states that:

> *"Sector-specific interventions are key to unlocking the large, untapped potential of agriculture, tourism, apparel, and mining, where new investments could help support recovery and accelerate structural transformation. [...]*
> *In mining, priorities include removing the suspension on new mining permits, which has prevented new developments for the past decade, and adopting a new mining code that balances revenue mobilization and incentives for new investments"*
>
> World Bank, 2023[xliv]

15 For more information, see https://www.worldbank.org/en/country/madagascar/overview#3

Madagascar has deposits of several minerals deemed critical for the green and digital transition of the EU: graphite, nickel, cobalt, titanium and REE. There are existing cobalt, nickel and ilmenite mines (from the latter of which titanium is obtained), as well as schemes to extract graphite and Rare Earths. For instance, the Ambavoty operation has been extracting nickel and cobalt for years in the Alaotra Mangoro region, near the city of Moramanga (Central-West)[16].

The government is set to exploit these resources. In June 2023, the moratorium on mining licenses – in place since 2011 – was lifted and a New Mining Code announced[xlv]. One notable change brought by the new code is the increase in company royalties paid to the country from 2 to 5%. A grassroots group has been involved in drafting the code, led by CRAAD-OI (Centre de Recherches et d'Appui pour les Alternatives de Développement–Océan Indien). However, the organisation has complained that, after two years of work, the state convened a Mining Forum and passed the law immediately after, without taking into account the group's work. The WB was one of the stakeholders strongly pushing for the approval of the new code.

The WB has played a key role in supporting the promotion and development of the current ilmenite mine in one of the most impoverished areas of the country, Tolagnaro. The mine is owned by the transnational company Rio Tinto and the government of Madagascar. In addition to ilmenite, it extracts monazite for the production of Rare Earths as a secondary material.

Rare earth mining is also threatening the lives of communities living in the Ampasindava peninsula, in the north of the island, and in the region around Toliara, in the south-west. Two different companies are planning to open mines for the extraction of these minerals. The deposits in Tolagnaro and Toliara are composed of mineral sands, while in the peninsula of Ampasindava there is an ionic-clay deposit. Different deposits require different extraction methods. The value of the country's REE reserves has been estimated at a value of around $10 billion (as of 2020)[xlvi]. While REE prices fluctuate and the value could therefore go up or down, this value is nevertheless of certain significance when compared to the country's annual GDP in 2022 of $16 billion[xlvii].

Resistance to the aforementioned projects has emerged in each of the three areas with the support of CRAAD-OI, a human rights organisation based in Antananarivo that has helped the affected communities to form women's groups through FARM (Femmes en Action Rurale de Madagascar), and to build alliances between their community-based associations MA.ZO.TO and the RJDD (Réseau de Jeunes pour le Développement Durable).

16 For more information, see https://ambatovy.com/en/

2.5. Tolagnaro: the curse of Anosy

Tolagnaro, also known by its French name Fort-Dauphin, is a town in the region of Anosy, on the southeastern coast of Madagascar, far from the capital in Antananarivo.

The region has been transformed since the arrival of the mining operations, spearheaded by the WB Integrated Growth Pole. Verdant and fertile, it enjoys a tropical climate with frequent rainfall, even during the dry season. Long white beaches, dense forests and mountains make the area around Tolagnaro an attractive location for tourism. However, the number of visitors has decreased in recent years. According to several informants, this is due to the mine.

The mineral sands mining operation near Tolagnaro was built with support from the World Bank and started operating in 2008. Ownership of Qit Madagascar Minerals (QMM) is shared between the transnational company Rio Tinto (80%) and the government of Madagascar (20%). QMM mines ilmenite, zircon and, since 2018, monazite (which contains Rare Earths[17]). Ilmenite, the main ore mined, is used to produce titanium. Titanium is one of the materials that the CRMA lists as strategic, not for renewable energy production, but for the military industry[xlviii].

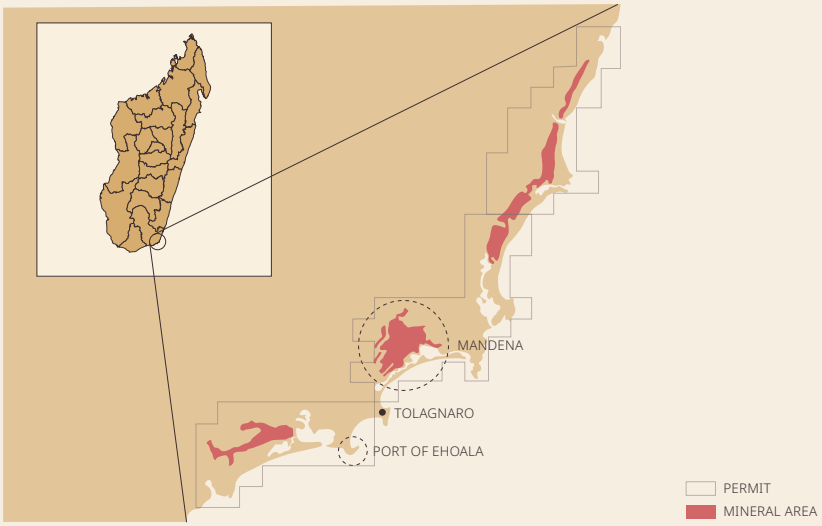
Image 5:
Lake Amparihy in Tolanaro has been impacted by pollution from rare earth mining.

17 Typically cerium, lanthanum, and neodymium. It can also contain thorium, which is highly radioactive.

One site, two further deposits

Initially, the company announced its intention to extract ilmenite exclusively. It was only in 2018 that they began declaring secondary products: zircon and monazite. The company identified three deposits in the area, in Mandena – which is currently operational – and two more in Petriky and Saint Luce. In total, the life expectancy of the mine is around 40-50 years.

Figure 8.
Map of QMM mining site.



Currently, the annual export volume is 600,000 t for ilmenite, around 25,000-30,000 t for zircon and a similar amount for monazite. However, the full potential of the mine is 1 million tonnes of ilmenite. The sands are separated on the site, using gravitation and electromagnetism.

There has been unrest among local communities since the opening of the mine[xlix]. Major protests have taken place against the contamination of water and soil with radioactivity and heavy metals and the subsequent impact on the health of local residents and ecosystems. The company has been singled out for lack of transparency and corruption.

The next deposit to be exploited is Manafiafy, more commonly known by its French name Sainte Luce. A remote coastal settlement, its residents make their living from fishing and lobster capture, as well as basket weaving using *mahampy*. The company faced difficulties in accessing the deposit: an attempt in 2011 ended in failure. Local land has been subject to much speculation, with wealthy individuals who acquired land expect-

ing monetary compensation from the company. Since 2019, the company has made further attempts to access the deposit, while at the same time facing community resistance. There have been numerous protests over recent years. During a peaceful demonstration close to the site in October of 2023, the police and the army shot at demonstrators, with three fatalities[l]. There was no media coverage of the deaths.

The impacts on people's livelihoods

While some have benefited notably from the mine, the communities directly affected are not among them. For instance, Tolagnaro does not suffer the power cuts that are frequent in the rest of the country, since the company has secured a continuous electricity supply[li]. However, this is only the case for the city itself, and not for the surrounding rural communities.

In order to compensate for their environmental impact, the company put in place a biodiversity offsetting project[xlix]. This consists of establishing protected forest areas and banning access to them – including for local communities. This is highly problematic, as communities need the forests to obtain wood for cooking, food and medicines. The ban on access to forests affects rural women in particular, who are weavers and obtain their raw material from a local plant called *mahampy*. They make baskets, mats, hats and other objects. In theory, communities were to be offered monetary compensation for the forest closure, however, this frequently failed to arrive, having been handed directly to local mayors. The company is also involved in planting trees, albeit not local varieties, such as acacia and eucalyptus[lii].

Image 6:
Port of Ehoala (Tolaganaro) owned by Rio Tinto for the export of extracted minerals. Artisanal fishermen on the beach.

Rio Tinto built a port, the Port of Ehoala, to export the product from the mine, with support from the Malagasy government and the WB. This port was presented as benefiting the local residents; however, sources reported that its use is too expensive for locals. Moreover, since the construction of the port, fishermen are only allowed to go out fishing at certain hours, and the amount of fish has decreased, negatively affecting their livelihoods. Most of the produce is exported from Ehoala to Havre Saint Pierre[liii], Quebec, in Canada. However, another 30-40 % is directly shipped to China, for an American company called Chemours.

Promises of employment and development

The mine employs around 2000 people, 500 directly and 1500 through contractors. Many employees are victims of harassment by management. Positions at the top are held by non-nationals (around 20), and there have been instances of racism and lack of sensitivity towards the local culture and circumstances. However, with people in a precarious economic situation and afraid of losing their job, it is difficult to speak up. A workers' union exists, but does little to defend workers rights. In a context of structural deprivation, a 'donation' to union leaders is enough for any action to be called off.

Image 7:
Rio Tinto mine workers in the vicinity of the Mandromondromotra River.

According to a former employee, "Rio Tinto is the best employer here". They offer notably high salaries, full healthcare coverage, scholarship for employee's children and safe housing, inter alia. According to this employee, conditions are better than at other mining sites in the country. This drives a wedge between employees and local communities.

> *If I wasn't working for QMM, I would never have been able to have this quality of life"*
>
> QMM former worker

This notwithstanding, processing monazite implies being exposed to radioactivity, as the ore contains uranium and thorium, which are radioactive elements[lv]. There are several measures in place to manage workers' exposure to radioactivity. According to the company, they comply with international standards. In 2023,

they commissioned a study from the Australian consultancy firm JBS & G which concluded that radioactivity levels found in the water, food and soil were not dangerous for human and animal life. For employees, exposure is 5 millisievert a year, below international limits[18] (set at 20 ms/year by the International Atomic Energy Agency)[iv]. However, this fails into account certain details:

- Lack of a pressurisation system[19] to clean workers' clothes after operations. This means that if an operator is wearing a pair of gloves on the contaminated area and takes them home, they will most likely take home radioactive particles.
- Not all staff are equipped with a personal dosimeter, which would enable them to be aware of the radioactive levels to which they are exposed.
- There is no monitoring system to measure radioactivity outside the mine. For instance, in the event of heavy rain, radioactivity can spread outside of the mine.

Water pollution

The operational water use of the mine is significant. In order to access the water required for operations, the company constructed a well, something which evidently entails changes in the aquatic system.

Image 8:
Truck departing from the Ehoala Port facility, Tolagnaro.

18 See https://www.riotinto.com/en/news/releases/2023/rio-tinto-releases-independent-community-radiation-study-of-its-qmm-mineral-sands-site

19 Pressurization of compressed air is used to clean clothes and remove all radioactive particles in polluted sites.

Multiple incidents have occurred throughout the existence of the mine. The water is not, in principle, released to the ecosystem due to a closed circuit, except in two circumstances: when there is flooding or if the dam collapses. After two cyclone episodes in 2022, the dam reached a point of near-collapse, and the company released one million cubic metres of waste water to prevent this. This resulted in the deaths of hundreds of fish in Lake Ambavarano, and a three-month fishing ban. The release of polluted wastewater has been reported since the opening of the mine, with several fish species disappearing[lv]. In 2021, the company published a report[20] that acknowledged that excess levels of aluminium and cadmium were found in the released water.

In response to the high levels of cadmium and aluminium, the company built a Rainy Season Release Readiness (RRR) plant, to purify the water and increase its pH before any release into the surrounding environment. However, the construction of the plant was undertaken without a prior Environmental Impact Assessment.

> *"I am not very comfortable with what I have seen in QMM"*
>
> QMM former worker

QMM workers drink water treated at the company's facilities, but not all the neighbouring residents have access to it[lvi]. A study[21] found that lead and uranium concentrations in some parts of the waterways were 40 to 52 times higher than the levels recommended by the WHO.

Most protests taking place against Rio Tinto operations are related to water pollution. Communities describe how their water sources are dirty, reporting pollution and health problems such as miscarriages and other reproductive issues, as well as skin diseases. During demonstrations, the company sends employees to offer monetary compensation to the protesters.

In 2024, a group of villagers, together with the law firm Leigh Day[22], launched a court case against the company due to the impacts that the consumption of polluted water has had on their health.

20 The report is called "QMM Water Discharge: Monitoring Data" and was published in March 2021. See: https://www.riotinto.com/operations/madagascar/qit-madagascar-minerals/qmm-water-management

21 Commissioned by the Andrew Lees Trust. See http://www.andrewleestrust.org/blog/wp-content/uploads/2020/11/ALTUK_Evaluation-of-JBSG-Water-Report__by-Dr-S-Emerman_2020_Revised.pdf

22 In their own words, "a law firm established to combat injustice. Through hundreds of cases, Leigh Day secures compensation, influences legal changes, and restores justice." For more information, see https://www.leighday.co.uk/

Bribes for some, harm for others

The benefits for local communities are questionable at best. Money committed to Corporate Social Responsibility (CSR) remains unspent. Up until the New Mining Code (2023) came into force, royalties of 2%[23] have been paid to the central government, which later decides how much is paid back to the three municipalities directly affected. Thereupon, even if this reaches the leaders of the municipalities and *fokontany*, there is no guarantee that it will be used to the benefit of the whole community.

> *[the company] is increasing its productive profit but there is no real investment for the community. The CSR promised years ago is still under study. They are playing with time while people in the surrounding area have no access to education, healthcare, electricity or potable water. This is breaching human rights. They are comfortable seeing thousands of people living in a very bad condition."*
>
> QMM former worker

Indeed, monetary exchanges dominate everyday life in Tolagnaro and the villages surrounding the mine. After more than a decade in operation, cases of bribery at all levels are countless: from the top to the bottom and, in some instances, from the bottom to the top. One example is the payment of small sums by protesters to QMM managers to get their names on the list of people who will be compensated for the damage caused by the mine.

Life in the city of Tolagnaro has also changed since the opening of the mine. Inhabitants described the increased cost of living, with inflation and deepening inequalities. Furthermore, communities have complained about rising costs. A study estimated that people living around the Mandena site had lost 45% from the value of their earnings since the opening of the mine[lvii]. The salaries of those working for the mine are higher than those of other residents. Violence has increased, and there is now a significant armed forces presence and a curfew at 9pm.

A small group of young people are active under the RJDD in Tolagnaro. They are concerned about the impacts of the mine on their health and on the economy. Tolagnaro residents are very angry and frustrated. The fact that the government is a shareholder in the mine makes demanding justice challenging: corporate power and state authorities work together. According to residents, corruption is widespread, and their resistance has weakened.

23 The mining code raises royalties to 5% of profits.

In Saint Luce, local residents are resisting exploitation of the deposit. Their livelihoods depend on the ocean and the forests, and they cannot lose access to either of them. A respected elder who passed away was used by QMM to encourage support for the project some years ago. Residents already note the impact of the Mandena site, since they have been banned from accessing a part of the forests as a result of QMM's biodiversity offsetting programme, which establishes forest protection areas. This means that they are unable to gather wood there and have to buy it or walk several kilometres to collect it from other forests. They are also unable to obtain *mahampy* for handcrafts and other plants from the forest. The company promised to pay for loss of access and to offset the impact on their livelihoods, but these promises have not been kept. Local residents see a connection between other daily problems and the mine: illnesses at birth, health problems affecting the *zebus*, and worsening quality of agricultural products due to soil depletion. They have voiced concerns for future generations. Information about the exact plans of the company regarding exploitation of the underlying deposit has not been provided to them, although they have heard rumours. Community members have contacted the company to communicate their concerns, but have not obtained a response.

In Mahatalaky, the community is split. Some favour the mine, while others oppose it. Before the mine, they grew rice, cassava, bananas and custard apples (among other fruits), coffee and sugar cane. Interviewees explained that this was enough for self-supply, but this has changed: yields have decreased, and community members are compelled to eat poisonous roots that they believe are related to cutaneous eruptions. They are already affected by the Mandena site and would be further affected by this additional expansion, and fear being driven out of their homes.

Mandromondromotra is a town close to the Mandena site. It owes its name to the river which passes through the town and goes around the site. Drinking the river's water was forbidden, and the authorities provided drinking water. However, inhabitants still used the river to wash themselves. They spoke of cutaneous eruptions and reproductive health issues, as well as zebus' diarrhoea due to contamination of water. They were promised support for building houses and obtaining employment, none of which has materialised. They lack basic facilities such as access to clean water, hospitals and electricity. A village elder emphasised how the mine has made them poorer, although the local mayor's wealth increased. The company has paid out some compensation, although this has not reached the majority of the community, remaining instead in the mayor's hands.

2.6. Toliara: corporate breakthrough despite fierce resistance

A deposit of ilmenite, zircon, rutile and monazite was found 45km north of Toliara[lviii], in the region of Antsimo-Andrefana in the south-west of the country, and extraction had been expected to begin in 2014. Initially, the project had a Malagasy name, *fasimainty*, which is the word for ilmenite. The company, Toliara Sands, was later acquired by the Australian company Base Resources, who changed the name of the project to Base Toliara. After the acquisition by the US-based company Energy Fuels in 2024, the process to begin mining has moved forward at increasing speed.

The project covers a mining area of 1,000 km^2, with the construction of processing facilities, roads and a port at the beach of Andaboy. The company estimated that the project would need 530m^3 of water per hour in the first stage and 786 m^3 in its second stage, in an area facing increased water scarcity[lix].

As has been exemplified in the case of the QMM mine above, mining mineral sands is extremely risky because of the resulting radioactivity. A study by the University of Antananarivo discovered that, in 2014, thorium levels were especially high in the deposit that Base Toliara plans on mining[lx].

The company initially established themselves in 2014, studying the area and carrying out the sampling process over five years. Minerals were extracted and transported to a laboratory in Toliara to be analysed.

RJDD has complained that the Environmental Impact Assessment and the Social and Environmental Management Plan conducted by the Office National de l'Environnement (ONE, National Office of Environment) are outdated and unreliable, since they were elaborated by a governmental office, whose interest was to open the mine.

Image 9:
sacred site at the beeach of Andaboy, Toliara.

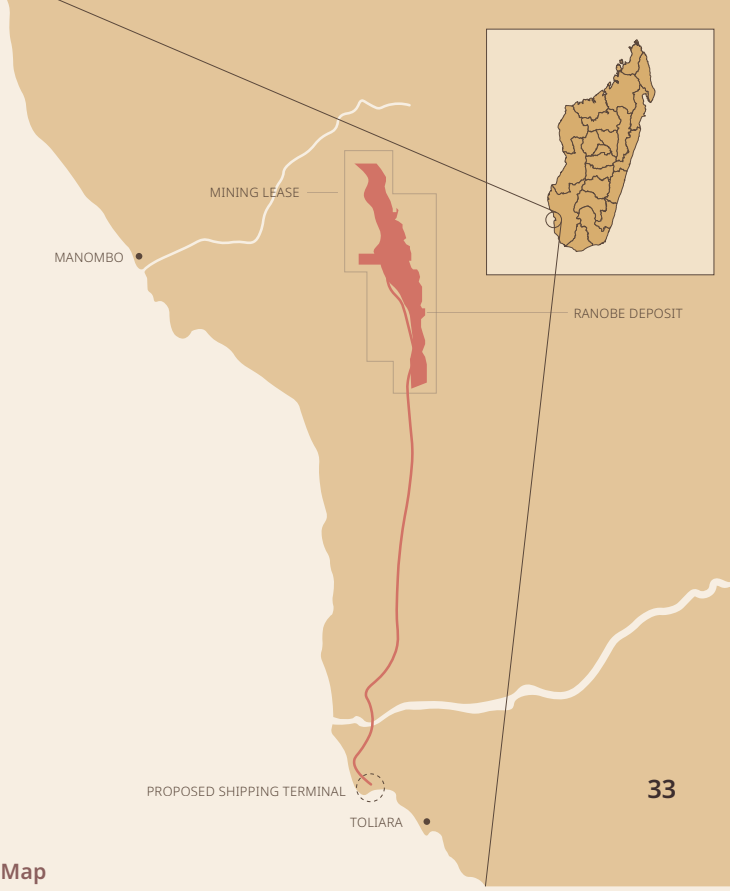


Figure 9.
Base Toliara Mining Site Map

A threat to forest and coastal people's livelihoods

The Base Toliara mineral sands and Rare Earths mining project in the south-west of the country faces fierce long-term resistance due to the high-risk impacts on the livelihoods, health and culture of local communities, as well as the threat it poses to local biodiversity and ecology.

Eleven *fokontany* in four different "communes" stand to be affected by the project. The populations affected are *Masikoro*, *Vezo* and *Mikea* in five different settlements: Toliara I, Maromiandra, Belalanda, Ankilimalinike, Tsianisiha. In addition, four others would be indirectly affected: Manombo, Marofoty, Milenaka and Ankililoaka.

- The **Masikoro** live in the forest. They rely on agricultural activities and agroforestry for their livelihoods, obtaining food, material for house-building, cooking wood, animal feed and medicines from the forests. They are entirely reliant on these. Tree-cutting is *fady* for them; they only collect wood that has fallen. In addition, they have

Image 10: Meeting with Tsifanoke community members, nearby Toliara.

sacred sites located in the forest's depths. If the mine is ever opened, they will see their access to the forest limited, depriving them of their livelihoods, and most likely forcing the relocation of their settlements.

The resistance of the *Masikoro* people is organised through an association called MA.ZO.TO.

Land ownership is collectively acknowledged through the sacrifice of zebu and a pledge of allegiance.

- **Vezo** are fisher-people[lxi]. The ocean is to them what the forest is to the Masikoro. In fact, "vezo" means "people who fish" in Malagasy. They live on the country's west coast, between Toliara and Mahajanga. Fishing provides employment for 87% of the population, while fish provide 99% of protein in their diets[lxii].

  During the rainy season (from November to April), and especially when cyclones hit the area, the ocean becomes very dangerous, and they must sometimes spend up to three months without fishing. As they rely entirely on fishing, this has serious economic consequences for them.

  After having heard some informal information about the mine, the ***Vezo*** created an organisation called Zanadriake in 2017 for fishermen and coastal people to unite to collectively oppose it.

- The **Mikea** are a group of 1,000 to 2,000 people who populate the semiarid Mikea Forest of southwestern Madagascar. Their livelihoods are based on hunter-gathering, foraging and horticulture[lxiii].

  The *Mikea* identify themselves strongly with the forest, which has provided them with livelihoods and an escape route from outside life since the colonial period. In 2009, their forest was officially recognised as the Mikea Forest National Park, but it is now threatened by the Base Toliara project[lxiv].

The project threatens the forests, and consequently, the lifestyles of the *Masikoro* peoples. The company established the main camp (for the obtention of samples) in the forests close to Tsiafanoke. This is a sacred forest for the Masikoro. Forests provide alternative sources of food, game, cooking wood, medicines, pastures for zebus and a place to bury their ancestors. Communities have expressed concerns about the relocation of their homes and also of sacred sites in which they have buried their ancestors for centuries.

In Ankililoaka, women farmers grow cotton, rice and other vegetables. In interviews, they reported how local authorities made use of manipulative propaganda to gain support for the mine, in an area where the majority of the community members are illiterate. They expressed their gratitude to FARM and CRAAD-OI for the information and support provided to them.

Members from the different communities also expressed their anxiety in the face of uncertainty about the re-opening of the mine. They fear the destruction of their livelihoods and sacred sites, and for their children's future. With looming climate change and severe drought, they are afraid that the mine would compete with them for water, and are aware that its water requirements are high. This notwithstanding, their agricultural activities depend on water availability. Their rice harvest has already decreased from 3 to 1 time a year, with a similar trend in the yield of other crops. They are afraid of not having enough to eat if the company returns and begins mining.

Masikoro women are concerned about the company monopolising the forest, which they use as a source of medicines for childbirth, among other events, since they have traditional knowledge about which plants to use and cannot afford to go to a conventional doctor. They have also heard about the impacts that the mine in Tolagnaro has had on people's health, and are afraid that these could happen in their areas. The forests also provide them with wood for cooking and animals to hunt.

The construction of the port is another burning issue of the project. Andaboy, located in the northern coast of Toliara city, is currently a port for rowboats and is a sacred site for the ***Vezo***, who depend on fishing and the ocean for their livelihoods. For them, the beach is a sacred site where they conduct rituals related to their ancestors. They also use the port for going fishing, from which they make a living. The construction of an export port for mined materials would mean the denial of access to the beach for locals and visitors. Moreover, the *Vezo* fear that it would disturb marine ecosystems and affect fish availability.

The women from the community sell the fish that the men catch. They also feel threatened by the mine and are active through FARM. They explained how they visited the offices of Base Toliara to express their rejec-

tion of the mine, as well as talking to employees who visited them. They did not feel listened to: the company merely replied that, with the mine, they would be able to obtain jobs and money.

Communities are also concerned about radioactivity. Base Toliara announced that the radioactivity arising from mining activities would only affect a 1km radius from the mine; therefore, the population living within this perimeter would need to be relocated. However, communities are afraid that radioactivity could cause damage beyond this area.

Young people who live in Toliara, members of the local branch of RJDD, voiced their concerns about their health, fearing that the opening of the mine would affect their reproductive health, as they have learned from Rio Tinto's project that this is a risk. In addition, they believe that job opportunities for rural youth will ultimately take the form of low-paid manual labour.

The local reaction

Resistance against the mining project is strong and organised. RJDD is active in the area, and engaged in awareness-raising, advocacy with local authorities and providing support to communities. A group of them visited Tolagnaro to learn about the impacts of QMM's mine there. CRAAD-OI is also undertaking work in Toliara, raising awareness about the impacts of the project and providing support to the communities.

An important protest took place in 2019, after five years of activity by the company in the forest close to Tsiafanoke. Inhabitants from the surrounding area burned and destroyed the company's facilities. They also blocked roads with holes and trees to prevent access by company vehicles. Base Toliara then changed strategy and requested protesters provide deeds attesting to their rights to the land that the company had occupied. These were used to establish the names of the people protesting and, consequently, fourteen people were arrested, although five were released shortly after as their relatives had previously agreed to the opening of the mining site. The other nine were kept in jail for three months in Fianarantsoa[xv], more than 500km away, until they were set free thanks to the pressure of CRAAD-OI and international allies. Other protests have taken place since then in Ranobe, where the company would be based.

In 2021, Zanadriake organised a blockade of the road that leads to the beach, with authorities sending the gendarmerie and private security with dogs in response. However, the protesters did not leave and, after a physical confrontation, it was the armed forces who abandoned the area. It is important to note that dogs are fady for the *Vezo* and *Masikoro*. For

the following three months, they guarded the road in shifts, in order to prevent entry to anyone involved with the company. Those guarding the road were, consequently, unable to work, and in some instances they had to hire other people to do their job.

By contrast, some community leaders have received money in return for supporting the project. Masikoro communities reported that they sent letters to the company that never received a reply. They believe this was the result of bribes to local leaders, who never delivered the letters. This has led to intra-community conflicts, in which members distrust and even spy on each other. Some families have been split because of their differing views on the mine.

Several informants also reported that Base Toliara paid individuals to participate in a protest[24] and act as pro-mine spokespeople during the country's Independence Day in 2024. In a context of widespread poverty, a small sum of money or a sack of rice can make a difference in satisfying immediate needs.

Nevertheless, in some towns, the majority are in favour of the mine. This is the case of Belalanda, whose inhabitants have been promised a road to the port. Some people in the region believe in the promise of jobs and money, especially those with higher education, as they know they have a better chance of being hired for the project at a higher salary.

Demonstrations, however, have continued unabated, and the project has been on hold. After the announcement by the government of their intention to allow the mine, a major demonstration against it brought together 20,000 participants on 19 March 2024[25]. At the same time, the repression of protests has increased. In August 2024, a leader of the resistance was arrested the day before an important march opposing the re-opening of the mining site. As a result of his arrest, the march was cancelled. After two days in jail, he was released after signing a document which stated that he would not organise and participate in any further anti-mine protests.

The suspension was lifted on 27 November 2024, as approved by the Council of Ministers, after three years of being on hold[lxvi].

24 For more info about the protest, see https://newsmada.com/2024/06/28/26-juin-a-toliara-plus-de-4-000-manifestants-reclament-la-reouverture-de-base-toliara

25 See post by CRAAD-OI https://www.facebook.com/permalink.php?story_fbid=pfbid036rMBpYnHZiEaBJyf-sKftTEttF9t7cwmhuJP51Qi5bVjqDc4HpEQ2ATKib2d9otvAl&id=100086604946057

2.7. The Ampasindava peninsula: biodiversity and livelihoods in danger

The peninsula of Ampasindava is one of the most remote regions of Madagascar, located in the north-west of the country, 500 km from the capital. The national road from Antananarivo is unpaved and full of potholes, meaning that it takes two full days to drive there with a robust SUV, or 30 hours by taxi-brousse.

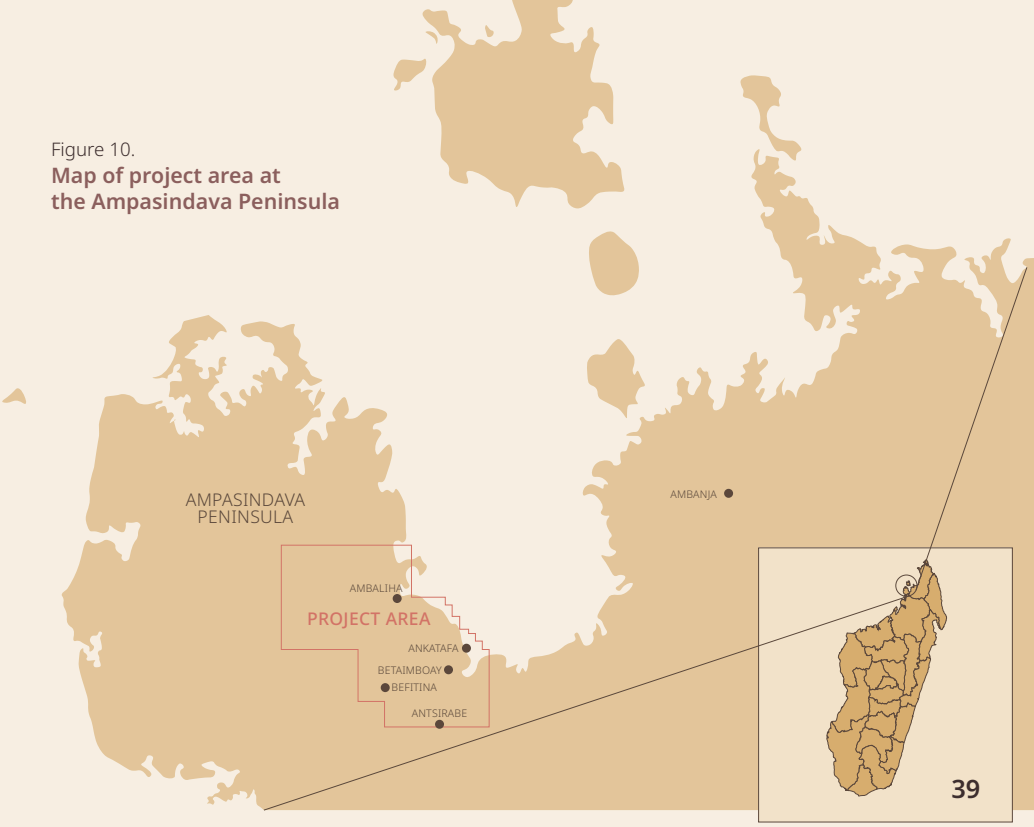
This area is home to northern Madagascar's last remaining forests, recognised as a global biodiversity hotspot and home to IUCN-listed endangered and vulnerable species. The maintenance of ecosystems is crucial for the well-being of the peninsula's inhabitants. The Ampasindava peninsula hosts communities that live in harmony with their surroundings. Most of them make a living from agriculture and fishing, since the area is surrounded by water and has fertile soil, and have done so for generations. At present, the rural population grows organic cocoa, coffee, vanilla, pepper, and clove for export, in addition to rice, cassava, bananas and vegetables for self-sufficiency. Since 2009, their livelihood has been under threat.

Vanilla is one of the flagship crops produced in the peninsula. Only grown in certain regions of the country, mainly in the north, vanilla from Madagascar is world-famous. Indeed, around 40% of the world vanilla is grown mainly by Malagasy smallholder farmers[26]. In recent years, vanilla prices have decreased, and there is a consortium of companies that control exports. Farmers can only sell their produce to them. When prices decrease, communities struggle to meet their basic needs.

Image 11: Entry road to the town of Ambanja, in the Ampasindava Peninsula.

26 According to data from FAOSTAT 2022

Figure 10.
Map of project area at the Ampasindava Peninsula



Like in Tolagnaro and Toliara, there is a potential deposit of Rare Earths in the peninsula. However, in this instance, it is not mineral sands containing monazite, but rather an ionic clay deposit, which has different characteristics and mineral extraction methods.

> *"The ion-adsorption clays consist of aluminosilicate clay minerals [...] formed through in-situ lateritic weathering of REE-rich host rocks. The Ambohimirahavavy ores are enriched with the Magnet Rare Earths, neodymium (Nd) and praseodymium (Pr) or together NdPr and dysprosium (Dy) and terbium (Tb) or together DyTb."*
>
> Harena Resources 2024[lxvii]

The extraction method proposed by Harena is "heap leaching", claimed to be less damaging to the local environment. It is also cheaper, in relative terms, than other extraction methods, albeit less efficient[lxviii]. It consists of migrating "leach solution through a fixed bed of ore particles, on its path interacting with the solid, releasing the target minerals into solution with which they are carried out of the bed". This method, however, poses several risks to the local environment, as noted by the IEA[v].

Following evaluation studies carried out by a range of companies, an exploration license for Rare Earths in the Ampasindava peninsula was granted to the German-owned company Tantalum Rare Earth Malagasy (TREM) in October 2009[lxix]. The mining area covers 300 km^2, and stands to directly affect six communes: Ambaliha, Antsirabe, Ankatsopo, Ankatafa, Ambodimangatelo and Ambodifinesy. The volume of the ionic clay deposit is estimated at 628 million tonnes, estimated to contain 104,000 tonnes[27] of rare earth oxides (REO). Ionic clay deposits provide heavy REE[xii]. The final product would be Mixed Rare Earth Carbonate or Mixed Rare Earth Concentrate.

It is important to note that the initial 2009 permit was issued by the Transitional Authority[28], which was not mandated to make commitments in the long-term. The sampling process and the lack of consent of local smallholders to the operations of the company sparked community action against it in 2016. Local residents only became aware of the project when the company arrived and started building facilities. That same year, the majority shareholding in TREM was acquired by ISR Capital, a Singapore-based enterprise which changed its name to Reenova in 2019[29]. ISR signed a MoU to supply REEs to the state-owned China Non Ferrous Metal[30]. Later, 75% of shares were resold to Australian Harena Resources in 2023.

Image 12: Pits generated by the company's sampling (TREM) on the Ampasindava peninsula.

27 Other estimates suggest even a higher potential number of REO, at 562.000 tonnes[lxxii]

28 Andry Rajoelina became the president of the High Transitional Authority, after a coup d'état deposed the elected President (Marc Ravalomanana) in February 2009. The Transitional Authority governed until 2013.

29 As reported in the Business Times. See https://www.businesstimes.com.sg/companies-markets/isr-capital-changes-name-reenova-investment-holding

30 For more information, see https://www.reuters.com/article/us-china-rareearths-madagascar-idUSKCN1TP1H3/

The impacts of sampling

Communities resist because they fear relocation, uncertain of where they would have to move to or whether their new lands would be fertile. Even in the instances in which relocation of a village would not be necessary, land would be taken from them, entailing a loss of their livelihoods: it is their source of income, through agriculture and farming, and also where their sacred sites are located. Their traditions are under threat. Women from the communities who were interviewed emphasised that they need land because they are farmers; they do not want to be forced to change their lifestyles. Since the company would only employ men, any employment of local residents would mean the women would have to undertake all agricultural labour on their own.

Another concern is the impacts that the mining operations could have on their health and that of their children, as well as on the surrounding environment. They have already felt the effects of the company's operations during sampling, which involved the dumping of waste water. Waste from the mine would likely be dumped in wells, and there could be leakage to the soil and water streams. Hundreds of holes were dug for sampling and waste disposal. These were not covered adequately, and communities report that zebus fell inside the holes. They also bemoan not receiving compensation for the animals they lost. Most of them do not have smartphones equipped with cameras, and this made it difficult to prove that zebus had fallen in the holes.

In order to obtain samples, hundreds of men from other regions were brought to the area to carry out excavation work. In Ambodifinesy, community members recalled an episode when these men arrived by river and settled in their village. Nobody had informed them beforehand – at least, not the *fokontany*. The newcomers stole animals and offended the locals with their behaviour, disrespecting their values and traditions.

Interviewees expressed relief that the company had left. TREM left a barren landscape behind that they have had to restore, and it is now verdant and fertile again. Life has returned more or less to how it was before the arrival of outsiders. Nevertheless, they reported suffering the impacts of climate change: water has become scarce due to reduced rainfall, and lands are less fertile. The mine is still a threat that would exacerbate this situation. It would entail deforestation, meaning less shade for the local inhabitants in an increasingly hot climate. In addition, they are also concerned about vanilla prices, which have failed to increase in recent years. In Ambodifinesy, there is a suspicion that the government has intentionally kept vanilla prices low so that they feel forced to accept the mining project as a means of obtaining income. In the coastal villages, residents also explained how fish capture has decreased. If the project is stopped once for all, they hope that the prices will rise again.

In defence of livelihoods

The company promised the construction of infrastructure and facilities such as roads, bridges and schools, but the communities claim that this is the responsibility of the government. During operations, a wooden bridge was built, which the communities said is of low quality, as well as a school that was destroyed by rainfall. Residents were also promised well-paid jobs but, during the sampling process only some members of the community were hired to carry out the most arduous tasks on very low pay. Many local people who worked for the company fell ill. Furthermore, no amount of infrastructure can provide the sovereignty they require to meet their basic needs and ensure their quality of life. In this regard, the community believe that smallholding is their best option in all respects. During the sampling process, households in Ankotsopo were provided with a sack of rice as compensation for the impact on their agricultural activities. However, the amount was insufficient to cover their daily consumption needs, with rice being the main staple of their diets.

In all the communities visited as part of our research, individuals voiced their willingness to fight. The mining project is a threat to their livelihoods, and they are ready to defend them. During the sampling process, communities protested at the company's facilities and brought written banners. However, not all communities are engaged in resistance, as they have fear repression and the authorities and live in conditions of poverty, struggling to meet their own needs.

After most shares of TREM were acquired by ISR Capital, a company based in Singapore, in 2016, CRAAD-OI organised international lobbying at the Singapore Stock Exchange via a letter to the regulator and all investors, detailing the reasons for local communities' opposition to the mining project. Tantalum Rare Earths was put under judicial management in 2022 and sold the project to its current owner, Harena Resources (Australian company)[lxx]. CRAAD-OI started a lobbying process again, this time writing a letter to the Australian Stock Exchange regulator. As a consequence, the company moved to the London Stock Exchange.

Since 2017, the company has not undertaken further sampling following expiry of their licence[lxvii]. At present, the project remains on hold, as the company has not obtained an exploitation permit.

Image 13:
Coffee roasting in the sun at Antsirabe I in Ampasindava.

3. An extractivist mindset: common patterns

> *"The global mining frontier is characterized by the practice of devaluing certain landscapes and livelihoods relative to their subterranean resources"*
>
> Klinger, 2018[vii]

> *"When we talk about the mining industry, there is a gap. This gap is called an asymmetric situation. Why is it asymmetric? We are talking about full business potential. We are talking about a million-dollar profit. And importantly, your neighbour is very poor "*
>
> QMM former worker

The three cases are at different developmental stages, and each has its own particular characteristics. However, there are clear common patterns in terms of the deployment of corporate power driven by interest in profiting from extractivism, as well as in the impacts this has on local communities and the environment.

In all instances, interviewees explained how **poverty is widespread**. The companies have used this situation as the basis of their strategy to obtain support from local communities, promising to provide the resources they lack: infrastructure, jobs and money. However, in Tolagnaro, the opening of the mine and its 15 years of operation have failed to reverse the situation of poverty, instead creating new imbalances and conflicts of interest.

Mining projects are a **threat to local cultures**. Knowledge and traditions transferred from generation to generation are intimately connected to the lands which communities inhabit. These are jeopardised by **relocation** following the arrival of mining companies: the case of QMM perfectly illustrates this situation.

Moreover, compensation for loss of agricultural lands is not considered fair by locals, who report being offered plots smaller than those they have been forced to give up for the mine. Discrimination in the implementation of Corporate Social Responsibility by the companies has also been reported. Mining companies have also showed a disregard for local values and traditions on several occasions. In Ampasindava, the Antsirabe community was told they would receive training in duck and pig husbandry as compensation for their relocation. This, however, is fady for

them: they have raised zebu and goats exclusively for generations. In Ankotsopo, households were given a remarkably insufficient amount of rice as compensation for the hindering of their agricultural activities.

Companies and communities have **different languages of valuation**. An example is the ties of communities with their forests. Denying access to the forests to women that depend on them to collect *mahampy* for weaving (QMM in Tolagnaro) or medicines (area affected by Base Toliara) has a disrupting effect, and cannot be compensated for with money.

Land tenure is only acknowledged where there are official title deeds, which means that the farmers who cultivate lands (and have done so for years and centuries) that are not officially registered under their name see them expropriated without compensation. According to the Mining Code of Madagascar, once a mining company has obtained a permit to operate in an area, they can ask the government to declare that the lands are of public interest[xli].

Furthermore, **monetary compensation** as a mechanism has **failed**. In Tolagnaro, compensation was not distributed evenly, generating imbalances and tensions; even those who obtained compensation came to oppose the mine, as the one-time sum failed to provide a source of stable income. In Toliara, initial payments to gain support for the mining project served to split communities and cause conflict. In the north, communities also rejected this mechanism: money cannot pay for the destruction of their livelihoods. Yet the role of money is much more complex: in a context of widespread poverty, the presence of such a powerful actor has transformed society into one in which almost everything requires a monetary payment. This is not only the case for Tolagnaro; in Toliara, **bribes** were used to encourage people to protest and come out in favour of the mine.

A **lack of transparency** and **adequate information** was highlighted by numerous interviewees. Moreover, companies have not dutifully sought consent. The right to Free, Prior and Informed Consent, FPIC, recognised in the ILO convention of 1989, has not been respected. Madagascar is not a signatory to the convention, and neither are Australia and the United Kingdom. However, it is party to and has ratified the African Charter on Human and Peoples' Rights[31]. In most instances, communities were not informed at all, and found out about the project through rumours (the Vezo fisher-community in Toliara and farmers from Ankililoka, communities in Saint Luce next to Rio Tinto) or when the company started operations (Ambodifinesy and Ankotsopo). In other cases, they claim that

31 While it does not specifically mention FPIC, several provisions have been interpreted as such. See: https://link.springer.com/chapter/10.1007/978-3-030-11382-7_9

companies failed to respect traditional local governance. Inhabitants of Tiafanoke sent letters to authorities asking for information and demanding a halt to the project that were never replied to. Moreover, questionable strategies have been used to collect consent signatures from locals for the three sites, such as convening an informative meeting about the TREM project and handing out attendance sheets to register who was present, later presuming they had consented to the project, or asking for the signature of documents in foreign languages that locals cannot read, such as English or French. It is important to note that most people in rural areas are illiterate.

There was a generalised feeling of being **tricked** and given **empty promises**. In Ampasindava, communities were promised employment, yet this led ultimately to only low-paid menial labour. In Toliara, jobs and money were promised that did not materialise. In Tolagnaro, compensation to affected communities who have seen their livelihoods hindered has, in many instances, not been paid. Further still, Rio Tinto has offered "collaboration" programmes to communities instead of compensation, to make sure that they cannot be sued in the event of noncompliance.

The companies also promised the construction of infrastructure such as bridges and schools, which is symptomatic of the inability of the government to provide public services. In rural areas, the destruction of people's livelihoods could mean not being able to send children to school or buy medicines for the ill. The willingness to send children to **school** and the fear that the opening of the mine puts this under threat was mentioned by almost all the interviewed communities. This was particularly the case when talking to women, who usually take care of children and the household. As such, lack of clean water because of droughts, exacerbated by mining activities, sees women suffer the most, and they must cover longer distances to access it. Women were also concerned, in all three cases, about the impacts of the mines on their reproductive health.

A repeated **distrust** and disappointment with the *Fanjakana* (**authorities**, in Malagasy) was palpable. Permits have been granted in dubious circumstances, as was the case for Ampasindava, where local authorities were bribed to consent in the name of their communities in all instances. Opacity and lack of transparency reign. In Toliara, authorities took advantage of the illiteracy of community members to provide biased information. **Moreover, revolving doors** have been identified in all instances: a former high-ranking employee of Base Toliara became later the country's Minister of Mines.

> *There is no governance of mining resources in Madagascar"*
>
> Own translation, FI

Interviewees also complained of a **lack of media coverage** by the main media outlets, mentioning how the press only gives space to the companies' and government's messages. For example, regarding the incident in October 2023 in which three people died, only one death was acknowledged by the press.

All of these impacts are exacerbated by the evident effects of **climate change**.

> *There are the impacts of climate change and of the company based there. These go hand-in-hand, and both affect agriculture. [...] farming is getting worse and worse, yields are getting smaller and people think that is because of the mining company"*
>
> Own translation, FI

For instance, in the region of Toliara, the continuing drought has caused a decrease in agricultural yields and rice harvests. In Ampasindava, in the north, communities have also seen how climate change affects their agricultural activities. Moreover, vanilla prices have fallen, despite this crop being one of the main sources of income for many.

> *The farmers are disappointed, because the price of vanilla used to be around 25 and 50 dollars, but now it's at 10, 8, even 6 dollars... some people immediately think that this is the impact of mining, others think that the state is lowering the price on purpose so that the farmers will give up farming so that mining can come in easily."*
>
> Own translation, FI

Reduced yields increase the vulnerability of communities and weaken their capacity to resist mining projects.

4. The corporate power behind it

The three cases analysed involve foreign companies that seek to maximise profits through their operations in Madagascar. The more advanced the project, the larger the company. At the time of writing, these companies are Rio Tinto, Energy Fuels and Harena Resources.

Image 14:
Rio Tinto ad on the road in Tolagnaro.

4.1. Rio Tinto

> *We're finding **better ways** to provide the materials the world needs"*
>
> Rio Tinto website[32]

CEO Jakob Staushholm, (formerly of Maersk, Shell, Equinor)	Revenue $54 billion
Headquarters London, United Kingdom and Melbourne, Australia	Operations in 35 countries Size 57,000 employees
Business sector Mining of aluminium, copper, iron ore, lithium, scandium, borate, diamonds, salt, ferrous Metals and titanium.	
Main shareholders Aluminium Corp of China (14.57%), BlackRock (9.23%), Capital Group (3.47%), The Vanguard Group (3.21%), Norges Bank (3%)[lxxi]	

Rio Tinto is a British-Australian mining giant, founded in Spain in 1873 to mine copper[33]. Currently it is the second-largest mining company in the world, and is at the top of the global ranking[34] of companies responsible for CO_2 emissions since the Industrial Revolution. Nonetheless, Rio Tinto brands itself as promoter of the energy transition. It supplies many of the raw materials deemed critical by the European Union, including lithium, copper and scandium, among others.

Like most polluting companies, it has a strong corporate green-washing machine in place: the company's website says that "the low-carbon transition is at the heart of our business strategy". Accordingly, in their operations in Madagascar, they expect to install solar and wind energy to supply part of the electricity consumed by the mine[lxxii]. However, most surrounding populations do not have access to electricity. Many of their existing projects have created conflicts[35] and been the subject of complaints for human rights violations[lxxiii].

32 Part of their current PR campaign. See https://www.riotinto.com/

33 The mine is still in operation. Work ceased between 2001 and 2015. Currently it is pending authorisation to continue mining the area. The socio-environmental impacts have been disastrous. For more information see: https://minob.org/english/minas-de-riotinto.html

34 According to a study by Influence Map. See: https://carbonmajors.org/Entities

35 See "Rio Tinto" in the Environmental Justice Atlas for more information regarding reported conflicts: https://ejatlas.org/

Rio Tinto has had ongoing activity in Madagascar for the last 14 years, including a public-private partnership with the Malagasy government named Qit Madagascar Minerals (QMM). As explained above, these operations imply a double land grab: for the mining site, and for their compensation programme[xlvii]. The company benefits from low taxes – it only paid $4.6 million in income-based taxation and royalties in 2022[x] – cheap labour costs, loose environmental and social protection regulations and access to electricity, all against a backdrop of the poverty and vulnerability of local communities.

The company's profit-seeking in the new rush for raw materials extends far beyond the Malagasy Republic. For instance, it is involved in lithium mining in Argentina[36]. Part of the so-called 'Lithium triangle' in the Andean salt flats, the arrival of transnational mining companies, hungry for mineral dollars, has created conflict in the area[i]. Following the EU's undertaking to extract Critical Raw Materials within its own territory, the company pushed again to open up a contested lithium mine in Serbia, which spurred massive protests[lxxiv].

Image 15:
Ehoala Port, Tolagnaro.

36 In Salar del Rincón. For more info, see https://www.riotinto.com/operations/projects/rincon

4.2. Energy Fuels

> *A 'one-of-its kind' US critical mineral supply chain"*
>
> Energy Fuels[37]

> *What do electric vehicles, smartphones, wind turbines and F-35 have in common? They all require materials known as Rare Earth Elements"*
>
> Energy Fuels REE production promotion video[38]

CEO Mark Chalmers, (Formerly of Paladin Energy and consultant for BP, Rio Tinto)	Headquarters Lakewood, Colorado, USA
Business sector Mining and processing uranium, vanadium, heavy mineral sands (monazite containing REE, ilmenite, rutile, zircon)	Operations in USA, Kenya, Brazil, Australia, Madagascar Size 150 employees in the USA
Investors ALPS Advisors Inc. (6.57%), BlackRock (5.59%), Columbia Management Investment Advisers (4.96 %), Mirae Asset Global Investments (4.58%), Vanguard Group (3.68%) (as of March 2024)	

Energy Fuels is the company that acquired Base Resources, owner of the Base Toliara project. Besides the project in Madagascar, Base Resources has running operations in Kwale, Kenya, to extract ilmenite, rutile and zircon[39]. Production in Toliara is expected to start in 2028, and is estimated to be of 780,000 tons of ilmenite, 53,000 tons of zircon, 7,000 tons of rutile and 21,800 tons of monazite. This would generate $2 billion net revenue for the company over 38 years of mine lifetime.

The company was founded in 1987 in the province of Alberta, Canada. Formerly Volcanic Metals Exploration Inc., it changed its name to Energy Fuels Inc. in 2006. Currently headquartered in the USA, it operates the White Mesa Uranium Mill – the only uranium and vanadium processing mill in the country– and two in-situ recovery facilities in Texas and Wyoming.

In 2020, it started to expand its activities to include Rare Earths, and was pioneering in taking steps to bring back parts of the REE supply chain to the USA. It agreed to a supply of monazite from the Chinese company Chemo-

37 As stated on their website, see https://www.energyfuels.com

38 To see the video: https://www.energyfuels.com/ree-production

39 For more info, see https://baseresources.com.au/our-assets/kwale-operations/

urs[40]. In 2021, the White Mesa Mill started producing Rare Earth Carbonate (RE Carbonate). On 10 February 2023, it formalised the acquisition of the Bahia Project in the state of Bahia, Brazil through its Brazilian subsidiary, which is currently in the exploration phase to extract ilmenite, zirconium and Rare Earths. In June 2024, the company signed a joint-venture agreement with Astron Limited for the Donald Rare Earths and Mineral Sands Project in Australia, with the right to earn up to 49% interest. It acquired Base Resources in full in October 2024, expanding operations to Kenya and Madagascar. Besides, it owns subsidiaries in Mauritius and Tanzania.

The company is also currently involved in adapting the facilities at the White Mesa Mill to be able to produce REE oxides. The current enhancement of capacity is aimed at producing 1,000 tonnes/year of NdPr oxide, if there is enough monazite available for processing. According to the company, this amount of NdPr oxide would equal the supply for 1 million electric vehicles per year. The resulting RE Carbonate will be shipped to NeoPerformance Materials' Silmet plant in Sillamäe, Estonia, the only industrial-scale rare earth midstream facility operating commercially outside of Asia. It is the only plant capable of efficiently transforming Rare Earth mineral concentrate into oxides on a large scale[41], to be used in the production of permanent magnets[42]. Energy Fuels plans to incorporate this processing step into their facilities over the coming years.

The company purportedly aims to consolidate a "US-based environmentally responsible REE supply chain", that is, independent from China[43]. The company stresses the need for REE for the green transition (wind turbines and EVs), as well as to produce military equipment such as F-35 drones, a model that has been widely used in the ongoing genocide in Gaza[44].

Image 16: Base Toliara sign on the road N9.

40 Rio Tinto's mine sends part of its supply to Chemours.

41 Energy Fuels has a contractual agreement with NeoPerformance materials to sell its NdPr products in 2024.

42 The company has started construction of Europe's first rare earth magnet manufacturing facility, in Narva (Estonia). The plant is designed to produce specialised rare earth permanent magnets, from the oxides obtained in the Silmet plant. Production is expected to begin in 2025, with an initial capacity to support the manufacturing of approximately 1.5 million electric vehicles. In its planned Phase 2, the facility will produce 5,000 tonnes annually, enough to supply magnets for 4.5 million electric cars. The total investment is projected to reach 250 million euros, of which 19 million euros will be provided by the European Union's Just Transition Fund.

43 For more information, see the video on Energy Fuels website: https://www.energyfuels.com/ree-production

44 As shown by the collective "Fira en la Mina". See https://lafiraenlamira.wordpress.com/2024/09/19/proximamente-mro-europe-aviation-week/

4.3. Harena Resources[45]

> *Powering the global energy transition"*
>
> Harena Resources[46]

CEO	Headquarters
Allan Mulligan	Perth, Australia
Business sector	**Operations in**
Mining of Rare Earth Elements	Australia, Madagascar

Harena Resources is an Australian company which owns the Ampasindava ionic-clay project in Madagascar. The company was created to make use of the site. "Harena" translates as "treasure" in Malagasy.

In 2023, the company hired Joe Belladonna to be their Managing Director and Allan Mulligan, the Executive Director, allegedly moved to East Africa to focus on its Madagascar project. The company has recently been taken over by Citius Resources Plc, a London based natural resources investment company.

In May 2024, Harena Resources announced a non-binding off-take agreement with US-based company United Rare Earths for the sale of 50% of the mine production of REE[47].

As of the month of October of 2024, the company was still engaged in PR about the attractiveness of the project, in a language that suggests they were still looking for investors. Moreover, they claimed to be working with local communities and sustainably, promoting a "zero-impact mining cycle"[48].

Under the CRMA, the EU launched a call for Strategic Projects that will be given official recognition and enjoy certain advantages, with the goal being to secure access to critical minerals. The Ampasindava project could qualify as such but, at the time of writing, the list of proposals for Strategic Projects has not been disclosed. The EU and Australia signed a Memorandum of Understanding in May 2024[49], showing their willingness to collaborate in the area of raw materials, involving private actors.

45 Harena Resources is currently the main owner of the Ampasindava REE project, but operations have not yet started. The company was created specifically for the project and is, therefore, quite small. It is suspected that the company is attempting to close an agreement with another company to secure product sale. As a consequence, there is little available information.

46 See https://harenaresources.com.au/company/

47 See https://www.unitedre.com/

48 See posts from October 2024 on X (former Twitter) https://x.com/HarenaResources

49 To read the full text, see https://www.industry.gov.au/publications/memorandum-understanding-between-european-union-and-australia-strategic-partnership-sustainable-critical-and-strategic-minerals#principles-and-scope-of-the-partnership-3

Image 17:
Sign made by Ankatafa community next to an official company site. It says: "We do not agree with Rare Earth mining operations undertaken by Harena resources company in the district of Ampasindava- Antanibe Andrefa".

5. The final frontier of resistance

When mining activities put land and livelihoods at stake, there is no other alternative than to fight back to defend the territory and the lives of those who live there. Even in the face of corporate power willing to use all kinds of strategies to get hold of resources, communities are mobilising and resisting. Remoteness makes the construction of a collective response challenging. In Madagascar, CRAAD-OI has had a structural role in supporting the opposition to Rare Earths mining in the country.

> *We don't know how to do the work of the state, but we try to compensate for what is missing. We therefore try to reach the grassroots to make people aware and support them in their struggle, for example, to organise demonstrations."*
>
> Own translation, FI

> *Sometimes I feel tired, because I feel hopeless, but I keep going."*
>
> Own translation, FI

Staff at CRAAD-OI, as well as some of the interviewed communities, emphasised the importance of building bridges and exchanges between communities to share experiences and see that they are not alone. They also mentioned the importance of communicating to the public and reaching people in the city, to let them know about the impacts of the mining projects not only on rural areas, but also on the wider environment and the country as a whole. Building alliances has also been key beyond the country, connecting with international allies who are willing to support and shine a light on the struggle beyond Malagasy borders.

Women play a key role in communities' struggles against the mining projects. Those living in Ampasindava and Toliara emphasised the need for the land to maintain their way of living. In Tolagnaro, access to forests is key for women who are basket weavers. As they are so directly affected, they are willing to fight. FARM has been crucial for the resilience of the communities resisting. This network of rural women provides training, support in the form of tools and seed crops, advice and a sense of belonging to a larger community. The difference between communities that have received this support and the ones that have not is palpable.

Organising resistance in remote impoverished areas can be very challenging. Interviewees expressed their difficulties in meeting other communities because of the time it takes to get from one place to another, often having to cover long distances by foot. In addition, the time spent organising is time not spent performing their daily and domestic tasks.

Resistance groups also showed a willingness to meet and exchange with those fighting mines in other parts of the country. A number of people from Ampasindava and Toliara had travelled to Tolagnaro and learned from the impacts there. Villagers in Tolagnaro also mentioned Toliara as a source of inspiration. Some villagers also mentioned that they would like to get to know other groups involved in resistance.

However, resistance has been met with repression. Criminalisation of protesters is rising, especially in relation to the Rio Tinto mine, with pro-

tests having taken place over the years since its opening. Repression has been unwavering, with arrests of dozens of people and the use of tear gas, rubber bullets and, in some instances, even gunfire against protestors. In Toliara, locals were asked to provide title deeds to their land as a means of gathering the names of protesters to later arrest them and silence protests. In 2019, nine people were arrested and put in jail for three months. More recently, in August 2024, a leader of the resistance was arrested the day before a major march, resulting in its cancellation.

The tension is clear: corporate power goes hand-in-hand with the state and knows no bounds in the pursuit of profit, while communities are unwilling to renounce their livelihoods. They want to remain on the lands of their ancestors, and continue living as they know – farming, fishing, and carrying out their traditional activities.

Image 18:
Vezo fisherwomen in Toliara.

Today, I tell you, even if I pay with my own life, I will fight this project until the end."
Own translation, FI

My message is to stop. This operation does not bring anything to the countries where the raw materials are extracted. You are the only ones who profit from this exploitation. If you want to meet your own needs, we ask that you do not do it in our home."
Own translation, FI

Repair the damage you have caused. Most importantly, we are demanding the debts you owe us for colonisation. For what you have done since. For, if there were no colonisation, if you did not destroy the environment, if you had not benefited from the exploitation of our resources for centuries, we would not be in such poverty. "
Own translation, FI

Real development is that my means suffice to make my living."
Own translation, FI

This is a fake narrative, when they say that energy transition is the path to perfection and where we ought to be, because someone somewhere will have to pay for it with their life and their blood."

Own translation, FI

We want a just transition. If we must make the energy transition, why always sacrifice the most vulnerable country in the extraction of these critical minerals? [...] Why always sacrifice those who are already bearing the brunt?"

Own translation, FI

We contributed very little to the climate crisis, but we are the most affected by the current climate crisis. This is an injustice in and of itself. But now, for the Global North to move towards an energy transition, we have to be sacrificed for that, because the rare earth extraction will take place in our country."

Own translation, FI

6. Toward a just global transition

The three cases analysed are vivid examples of the existing tension between the growth-driven green transition of the Global North and the livelihoods and hard realities of communities in Madagascar. Rural populations in the country bear the burden of a new extractivism that follows a colonial mindset. Green colonialism is perverse: while populations in the sacrifice zone do not even have access to electricity, they will have to pay a high cost to enable the 'transition' of the Global North. The latter is not only responsible for climate change and the adverse impacts that populations in countries such as Madagascar are already suffering, but also for the new threats that mining for their "green" transition poses to their lives.

QMM is the living example of what could happen in Toliara and the Ampasindava peninsula if the companies manage to start projects there. There are clear winners, such as the second largest mining company in the world – Rio Tinto – and the Malagasy government, complicit in the process of dispossession and negligent in its role to hold foreign companies accountable for the damage caused. More broadly, there are other winners: the countries consuming the technologies produced with the minerals extracted in Madagascar, including the members of the European Union driving the demand for raw materials and consequently incrementing the pressure on extraction territories. Nonetheless, these same countries in the rush to 'green' their economies are the same ones that are responsible for the climate crisis – at the expense, once again, of territories which are already feeling its worse impacts.

At the same time, the economic muscle of large corporations puts local communities against the ropes, with the choice of accepting the outstretched hand of capitalism or defending their agency and their livelihoods. Corporate power uses any and all means at its disposal to secure profit, with strategies such as offering to fill gaps in provision unmet by the state. The disruption created by these projects is not inconsiderable: they undermine local values and socio-cultural structures. Defending local economies and livelihoods does not mean not wanting an improvement in the community's life conditions: infrastructures and facilities are both sought-after and necessary, but their construction should not be dependent on the arrival of a transnational company. Paying money to compensate the destruction of local livelihoods may be accepted by

those who are in need, but cannot be a substitute for the priceless value of local culture and ways of life.

While some resist the mining projects in a strong and unified manner, others hesitate or give up: keeping up the fight is time and resource-consuming in already-deprived areas. Repression is unyielding, and frustration widespread among communities. Following the arrival of a company and the beginning of operations in a given area, resistance may continue, but it is weakened.

To pull the brake on this unjust transition, international solidarity is necessary. Speaking out against injustice is the minimum, but bringing about a truly just transition is the responsibility of everyone, especially in the Global North, and must include reparations for the historical debt forced upon the majority population of the Global South.

Challenging the discourse of inevitable rising mineral demand is also essential for re-establishing justice. The transition must be based on satisfying people's needs, not the greed for profit of transnational corporations. This also means abandoning the paradigm of economic growth, which is an illusion on a planet with finite resources. Unlimited growth in certain parts of the world is only possible at the expense of others where resources come from. This imbalance has to cease. The countries which have grown way beyond satisfying people's needs should take the lead and reshape their economies, abandoning private profit and capital accumulation as the main drivers. Instead, they should take responsibility for the accumulated climate and ecological debt, and spearhead a truly just global transition.

Degrowth as an umbrella term may be seen as problematic by some in the Global South. It might be helpful to think in terms of sufficiency. What is meant here is a call for a transition grounded in reversing the structural inequalities inherent in capitalism and the global order. A transition based on local realities and particularities, taking time and space as the lens to understand how each territory is to advance both its own and the global transition. For Madagascar, an energy transition is urgently needed, one that starts by guaranteeing access to energy for all, and continues by broadening the scope to a socio-ecological transition that puts life – and not profit – at the centre.

Annex I – Methodology

The preparation of this report consisted of the analysis of materials collected during fieldwork in Madagascar, as well as desk-based research on companies and a review of relevant literature. In addition, company data was provided by Osama Abdullah, from WAV_Recherchekollektiv. Some of the data in this report was provided by The Counter, at SOMO (Centre for Research on Multinational Corporations).

Two members of the ODG team travelled to Madagascar in July 2024 and carried out fieldwork over 4 weeks. They were accompanied by an interpreter (Malagasy-English) who facilitated interactions with the local communities and interviewees who did not speak English or French. During part of the trip, the fieldwork was done in collaboration with the researcher Mariana Walter.

A total of 23 interviews were carried out during the trip, which lasted 4 weeks. Of these, 17 were group interviews, and 6 with individuals. Of the individual interviews, two were entirely in English, and one in French. The rest were in Malagasy. All interviews were semi-structured: they followed an interview guide prepared beforehand, but were adapted to each of the interviewees. The lack of ability of the team to speak and understand the local language was a limiting factor, since it hindered spontaneity during the interviews and the ability to go into detail on certain topics. Furthermore, it meant that interviews took twice as long as expected, since interpretation was consecutive. Group interviews were especially challenging: the interviewers had no control over who from the group took the lead in responding to the questions. As they were conducted entirely in Malagasy, the role of the interpreter was crucial. In addition, there were power dynamics at play, and some voices may not have been heard. In some instances, the women in the group would not speak during the whole interview.

During the fieldwork trip, there was also space for informal conversations and observations.

In the report, the quotes from interviewees have been referenced as FI (fieldwork interviews) to preserve the anonymity of the respondents.

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