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Black Sands, Green Plans and Conflict: Structural Adjustment, Sectoral Reforms and the Mining–Conservation–Conflict Nexus in Southern Madagascar

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BLACK SANDS, GREEN PLANS AND CONFLICT: STRUCTURAL ADJUSTMENT, SECTORAL REFORMS AND THE MINING– CONSERVATION–CONFLICT NEXUS IN SOUTHERN MADAGASCAR

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Abbreviations

ANGAP	l'Association Nationale pour la Gestion des Aires Protégées
BCMM	Bureau du Cadastre Minier de Madagascar (Offices of the Mining Cadastre)
BTI	Bertelsmann Stiftung's Transformation Index
CBNRM	Community Based Natural Resource Management
CI	Conservation International
CSR	Corporate Social Responsibility
EAP	Environmental Action Plan
EDBM	Economic Development Board of Madagascar
EIA	Environmental Impact Assessment
EITI	Extractive Industry Trade Initiative
ESIA	Environmental and Social Impact Assessment
GELOSE	Gestion Locale Sécurisée
GDP	gross domestic product
HAT	High Transitional Authority
HMC	heavy mineral concentrate
IFC	International Finance Corporation
IUCN	International Union for the Conservation of Nature
MA.ZO.TO.	Miaro ny Aina sy Zon'olombelona ary Tontolo iainana (Défense de la Vie, des Droits Humains et de l'Environnement)
MDG	Millennium Development Goal
MECIE	Mise en Compatibilité des Investissements avec l'Environnement (Decree to Make Investments Compatible with the Environment)
MPMP	Ministère auprès de la Présidence chargé des Mines et du Pétrole (Ministry Near the President in Charge of Mines and Petroleum)
MSP	mineral separation plant
NEAP	National Environmental Action Plan
NGO	non-governmental organisation
NPI	net positive impact
OMNIS	Office of National Mines and Strategic Industries
ONE	Office National pour l'Environnement
PA	protected area
PASAGE	Program of Social Action and Support for Public Management
PATESP	Private Sector Development and Capacity Building Project
PCP	primary concentrator plant
PES	payments for ecosystem services
PNF	Programme National Foncier (National Land Program)
PPP	public-private partnership
QMM	QIT Madagascar Minerals
SAPM	Système d'Aires Protégées de Madagascar
SOLA	State-Owned Land Administration
SAP	structural adjustment programme
TANY	Collectif pour la Défense des Terres Malgaches
UN	United Nations
USAID	United States Agency for International Development
WCS	Wildlife Conservation Society
WTO	World Trade Organization
WTR	World Titanium Resources

1 Introduction

Madagascar, the fourth-largest island in the world with an area of about 590,000sq km, is located in the Indian Ocean approximately 400km east of the African mainland. It has been long-valued by natural scientists for its unique geology and natural history, and by social scientists for its sociocultural dynamism and its economic and demographic history associated with its location along Indian Ocean trade routes (Beaujard 2005). At the same time, Madagascar is among the least-developed countries in the world by a number of indicators, with one of the lowest gross domestic products (GDPs) in sub-Saharan Africa (Sarrasin 2006).

In 2014, Madagascar ranked 155 out of 187 countries in the United Nations (UN) *Human Development Report* and the country failed to reach the majority of UN Millennium Development Goals (MDGs) by 2015. In particular, the MDGs for child mortality, primary education enrolment and completion rates, and the eradication of extreme poverty were judged to be unachievable (World Bank 2015a). In 2014, about 65.5 per cent of the 23.6 million people of Madagascar lived in rural areas, often with poor access to electricity, sanitation and telecommunications infrastructure, and in 2012 just over 75 per cent of the population depended primarily on agriculture. GDP growth was estimated at 3.4 per cent in 2015, primarily driven by the extractive industry and the tertiary sector, yet over 80 per cent of the country's population lived on less than US\$1.90 per day (a rise from approximately 74 per cent in 2005) (World Bank 2015a, 2015b).

Despite a worsening development situation due to economic crisis and political unrest in recent years, the past decade has also seen an intensification of international interest in Madagascar's natural resources. With donor support, Madagascar has gone ahead with long-term plans for the dramatic expansion of its protected area (PA) network; and multinational mining companies, often in cooperation with state ministries, state-owned companies and international financing institutions, have recently made the largest foreign investments in the country's history (Corson 2012; Rajaobelina *et al.* 2010; Sarrasin 2006; US Department of State 2015; Wingen 2011). New extractive developments are established in rural areas, often near or contiguous to the boundaries and buffer zones of national parks and reserves. Further, they also frequently involve the creation of restrictive private conservation areas to offset environmentally destructive activities under 'no net loss' biodiversity directives. These recent trends mean that large-scale resource investments are unprecedented in their geographic extent and potential impacts on the Malagasy landscape and the livelihoods of rural people.

Potential conflicts are related to many dynamic factors, including high, yet unsatisfied, social expectations at the mine site, unemployment and the transformative effects of large mining operations on formal and informal economies, that interact and unfold in historical sociopolitical context (Perks 2012). Furthermore, it is important to note that in these development contexts, conflicts over resources can be driven as much by relations internal to different stakeholder groups as between different groups (Gingembre 2015). It is well documented in a growing number of cases that local community members have had little voice in and have paid the greatest proportional economic and social costs, including both economic and physical displacement, of conservation and extractive development in Madagascar. It is unsurprising that rural Malagasy people are especially sensitive and resistant to directives and changes that are perceived as unjust, particularly those that prohibit diversified livelihood practices if close substitute practices that preserve economic and subsistence sufficiency, resilience and social salience are not available (Huff 2014; Wingen 2011). As investments in land and minerals have intensified in Madagascar's rural

periphery, so has the frequency of conflicts around particular projects, some with national and international repercussions.

As Ferguson and colleagues (2014) state, the growing interest in Madagascar's natural resources has not occurred in a policy vacuum; since the 1980s, Madagascar has undergone sweeping policy reforms across sectors that have often suffered serious failings in terms of their operationalisation. This has had important consequences for Malagasy people, whose lands and livelihoods have been swept up in a massive resource rush, and holds profound implications for the future (*op cit.*: 63). This report is a policy analysis of international investments in Madagascar's natural resources at the thematic intersection of extractive development, land reform, environmental preservation and conflict. After introducing the national and policy context, the report focuses on two recent mineral sands (locally known as *fasymainty*, or 'black sands' in southwestern Madagascar) development projects, the QMM (QIT Madagascar Minerals) Rio Tinto mining complex near Fort Dauphin in the southeast of the country and the Toliara Sands development north of the city of Toliara in southwestern Madagascar. This report uses analysis of these cases to identify factors at policy level that are implicated in the emergence and escalation of civil unrest and conflict in the context of joint resource development and environmental preservation projects in Madagascar. Both the QMM and Toliara Sands operations, which entail significant local environmental impacts in addition to social impacts, have sought to incorporate environmental offsetting into their operational plans. Additionally, both operations are associated with ongoing or emerging resistance movements and conflict episodes involving four primary stakeholder groups: government actors, foreign investors, environmentalists (including associated national and international environmental non-governmental organisations (NGOs)), and local Malagasy communities impacted by mining activities.

2 Historical and policy context

2.1 Pre-colonial and colonial history and independence

Madagascar is a country of significant cultural and ecological diversity and dynamism due to its geology and natural history,¹ its late permanent human settlement and an economic and demographic history associated with its location along historical Indian Ocean trade routes (Beaujard 2005; Dewar and Wright 1993; Southall 1971). Contemporary Malagasy culture, language, and genetics reflect African, Arab, Indonesian, East Asian, South Asian and European influences (Burney *et al.* 2004; Dewar and Wright 1993; Razafindrazaka *et al.* 2010).

In the pre-colonial period, Madagascar was home to many indigenous kingdoms reflecting a diverse range of political forms, the ruling dynasties of which became empowered between the fifteenth and seventeenth centuries (Cole and Middleton 2001; Kent 1970). One of these powerful dynasties, that of the Merina of the central highlands in what is currently Antananarivo Province, went on to head a powerful pre-colonial oligarchy with the support of English allies (Berg 1981, 1985). The pre-colonial Merina state ruled conquered portions of the island from about 1810 until 1896 when Madagascar came under French colonial rule. The French colonial administration established a 'classic, dominant and dependent colonial economy' and formally established a number of economically specialised regions (Cole and Middleton 2001: 7). Through the structure of indirect rule, by which local elites served as appointed agents of the colonial administration and loyal Malagasy *partisans* and military were empowered to enforce settlement laws, conscript labour and collect taxes locally, the French administration penetrated, at least bureaucratically and symbolically, even the most rural regions of Madagascar (Yount, Tsiazonera and Tucker 2001).

In 1960, Madagascar gained its independence and became recognised as a sovereign state, the First Malagasy Republic, although it retained strong economic ties with France until the 1970s. In 1972, Didier Ratsiraka's election to the presidency ushered in the Second Republic, a period of Soviet-aligned state socialism characterised by economic isolationism, nationalisation of natural resources and industries, and economic decline punctuated by periods of political instability (Cole 1998; Sodikoff 2007).

2.2 Liberalisation and the redefinition of the Malagasy state

By the 1980s, Madagascar's economic deterioration was internationally perceived as a severe crisis, and a new period of liberalisation was ushered in as foreign investment in resources and industry was encouraged and Madagascar's General Development Policy was developed with support from the World Bank. The General Development Policy involved three primary goals: alleviation of poverty, restoring internal and external fiscal balance, and finding a better regional balance. Based on a development model in which increases in exports are assumed to alleviate poverty whilst preserving biodiversity, these goals were to be achieved through the implementation of a policy 'tripod' involving mutually reinforcing structural adjustment programmes (SAPs), the Environmental Action Plan (EAP) and the Program of Social Action and Support for Public Management (PASAGE), a social stop-gap

¹ Madagascar has been geologically isolated from the African mainland for the past 75–100 million years. This has resulted in significant ecological uniqueness and a high incidence of endemic plant, animal and bird species and unique habitats. Consequently, Madagascar has been named one of the 'hottest of the Earth's biodiversity hotspots' (Ganzhorn *et al.* 2001; Hannah *et al.* 1998; Myers *et al.* 2000; Norris 2006) and has become a geographic focus for externally funded biodiversity conservation.

programme meant to ease the negative impacts of privatisation and decentralisation (Campbell 2010; Leonard 1989; Sarrasin 2006).

The crux of the reforms was the redefinition of the Malagasy state to facilitate its shift away from regulation and production. Creating the 'right' policy environment for investment involved mechanisms of privatisation, deregulation and decentralisation affecting state withdrawal from most productive activities, deregulation of the exchange rate and prices, liberalisation of domestic trade and imports, and decentralisation of public affairs decision-making and management to the *commune* level (Republic of Madagascar 2003; Sarrasin 2006). Aside from contractual agreements with the World Bank and International Monetary Fund that are outlined at length in documents such as the *Poverty Reduction Strategy Paper* (Republic of Madagascar 2003), these mechanisms were formalised in a series of legislative reforms at the national level, including most importantly what became the National Environmental Action Plan (NEAP), the Malagasy Mining Code, and the National Land Tenure Programme.

3 Environmental policy reform

Although the national economy continued to deteriorate between the early 1980s and 2000s, national political emphasis on biodiversity preservation has remained a national focal point of policy. In 1991, the Government of Madagascar launched Africa's first NEAP, the most ambitious and comprehensive environmental programme in Africa to date comprising a long-term investment programme planned in three phases. The NEAP has been the primary vehicle for channelling support to the management of PAs, other forest areas, wetlands and coral reefs in Madagascar (Keck 2001; Razafindralambo and Gaylord 2006). The inception of 'the NEAP era' in Madagascar led a new wave of liberal reforms and a marked shift in the locus of policy production and governance from the centralised Malagasy state to complex de-territorialised networks of NGOs, private companies, donors, and international financial institutions in collaboration with an increasingly fragmented and decentralised government (Duffy 2006; Raik, Wilson and Decker 2008). The NEAP era saw the creation of a new environmental management structure and implementing agencies under the Ministry of the Environment, including l'Association Nationale pour la Gestion des Aires Protégées (ANGAP), a quasi-private agency (essentially a private organisation managing a public utility) created to manage the growing PA network (Giminez 2012; Keck 2001). These shifts were accompanied by the rhetoric of democratisation, liberalisation, poverty alleviation and national economic development and an emphasis on the necessity of the interdependence of development goals and environmental preservation (Duffy 2006; Freudenberg 2010).

In the Malagasy context, goals of 'environmental preservation' are most often articulated in terms of the conservation of biodiversity and halting deforestation. The primary means of accomplishing these goals in the twentieth and twenty-first centuries has been to gradually increase the amount of terrestrial (and recently marine) territory under formal protection by establishing PAs of various types (Wingen 2011).

The first Malagasy protected areas were established under colonial authority in the 1920s, and by 1990, Malagasy PAs covered approximately 1.3 million hectares. In 2003, President Marc Ravalomanana articulated his famous 'Durban Vision', a pledge to triple protected areas from 1.7 million hectares, or about 3 per cent of national territory, to 6 million hectares, or 10 per cent of the national territory, as recommended by the International Union for the Conservation of Nature (IUCN), by 2012 (Durbin *et al.* 2006; Sarrasin 2006; Scales 2014; USAID 2010). However, the realisation of this plan was delayed (but not halted) by the national political crisis of the late 2000s and Madagascar's economic situation has worsened in recent years.

Since the nineteenth century, many Malagasy environmental laws sought to exclude people from using forest resources outright, but in 1996 the first law promoting the management transfer of renewable natural resources to local communities (Gestion Locale Sécurisée, or GELOSE) was passed, and between 2002 and 2009, environmental laws in Madagascar saw further shifts in language from exclusionary policies regarding local people's use of natural resources to those promoting local consultation processes and the creation of contracts for sustainable natural resource use following principles of Community Based Natural Resource Management (CBNRM) and co-management (Keck 2001; Wingen 2011).

Alongside this turn, in 2006, the governance structure of Malagasy PAs was reorganised once again into the *Système d'Aires Protégées de Madagascar* (SAPM), a change that simplified the legal PA establishment process and allowed PAs to be managed by a number of entities, including quasi-state agencies, NGOs, community organisations, private sector organisations, or a combination of these through collaborative management agreements

(Durbin *et al.* 2006). While some claim that these changes reflect a shift to a more 'people-centred' and democratic approach to conservation, they follow trends in decentralisation and privatisation and respond pragmatically to funding constraints and poor capacity of the NEAP organisations to manage PAs and enforce environmental rules. And the central missions of Malagasy PAs are quite similar – to limit the 'destructive' use of natural resources by poor Malagasy people living in or near forested areas, and especially to decrease rates of forest cutting and burning associated with traditional rice and maize cultivation practices (*tavy; hatsake*). According to Raik (2007), 'despite the rhetoric of local empowerment... governance arrangements are substantially controlled' by non-local stakeholders, consultation processes, when carried out, tend to favour the interests of private interests and local elites, and governance arrangements are quite variable. Significant gaps remain between policy discourse, legislation and local-scale conservation practice.

In this context, the increasing number of Malagasy PAs have become sites of local, national and international interest, 'transnational' (Ferguson and Gupta 2002) locales where powerful environmental and development discourses, as well as the livelihoods and material struggles of the Malagasy population, meet. This is because almost three-quarters of all Malagasy people derive primary support (in terms of subsistence and/or market income) from agriculture, growing rice, maize, manioc, pulses and vegetables and rearing livestock (especially cattle) for home consumption, for sale in domestic markets, and for export (Dorosh and Haggblade 1993; Minten and Barrett 2007). Yet, in the rush to create new conservation areas, which frequently result in economic and physical displacement of smallholders, local development needs have often been ignored and there have been reports of land grabs in areas likely to be designated as protected areas (USAID 2010).

It is in this context that both land reform and mining reform have unfolded in roughly the last 20 years.

4 Land reform in Madagascar

4.1 A brief history of land policy in Madagascar

Local tenure systems and formal land laws precede the colonial period in Madagascar. Prior to French colonisation, land tenure was governed under a number of customary systems that varied considerably across the island, and in 1881 the Merina Royal Council established a code under which all land under control of the Merina state was *de facto* property of the state (Leisz 1996). In 1897, the French colonial authorities introduced a land privatisation scheme and formal registration system based on the Australian Torrens Act to encourage European settlement, to provide an internationally recognised legal basis for French appropriation of Malagasy land and to foster land ‘modernisation’ through the development of agribusiness. The colonial system was subsequently revised through decree to undermine the legal status of customary land tenure and strengthen state control of land (Leisz 1996: 3).

The colonial land policy remained in place through independence until the reform process of the late twentieth century, despite the fact that under this system the land registration process was so bureaucratically complex, time intensive, mismanaged and expensive that it was, for practical purposes, inaccessible (Leisz 1996; Teyssier *et al.* 2009; USAID 2010). Prior to reform, the most significant aspect of Malagasy land law was the *principe de domanité*, the policy under which all untitled lands were presumed to belong to the state.

However, significant gaps existed between national law and land governance practices at the local level. Even though the *principe de domanité* legally prevailed under the Torrens system, most rural land users in Madagascar secured rights of access and control of land through customary tenure systems, which often went unchallenged by the state due to poor enforcement capacity in most of the rural parts of the country. In areas where the government was able to enforce land tenure regulations, people responded to the situation of ‘overlapping tenure systems’ in a number of ways, including developing hybrid or plural systems that functionally reconciled customary and state systems (e.g. *petites papiers* systems), and through resistance to state enforcement (Leisz 1996).

4.2 Madagascar’s National Land Programme and local land users’ tenure security

Reformulating Madagascar’s land policy was an important part of liberal reform recommendations for Madagascar, and the reform process was premised on the assumptions that tenure insecurity was a widespread problem and that rights formalisation would reduce conflicts and boost local economies through credit, investment and the establishment of local land markets (Burnod *et al.* 2012; Minten and Barrett 2007). Further, land reform, and particularly private ownership of land, was viewed as a necessary step toward simplifying procedures for land access through long-term land leases and toward improving security of access for foreign investors (Republic of Madagascar 2003; World Bank 1999).

The first attempt to implement procedures for formal recognition of customary property rights came with Decree No. 98-610 of 13 August 1998, which regulated the implementation of relative land tenure security. This law was meant for local communities to whom the state had transferred management of natural resources through the 1996 GELOSE reforms that regulated the devolution of renewable natural resource management. Even though this was a step toward a formal recognition of customary resource rights, implementation was weak

and the law contained no provisions or tenure security for individuals with customary claims (Ferguson *et al.* 2014).

In 2005, Madagascar launched an ongoing programme of land reform with the National Land Program (Programme National Foncier, or PNF), which included laws to decentralise land management, establish a computerised land registry, simplify the land registration process, merge Madagascar's formal and customary land tenure systems and dismantle the *principe de domanité* (Burnod *et al.* 2012). Local land registry offices (*guichets fonciers*) were established at the commune level to issue individual or collective land certificates (*certificats fonciers*) at low economic and opportunity cost to smallholders who could demonstrate ongoing occupation or use of a tract of land (*ibid.*). Under the new policy, the state only owns land registered in the name of public actors and 'unoccupied land' (Andrianirina Ratsialonana *et al.* 2011). Occupied but unregistered land is no longer considered to be state property, but rather 'untitled private property' that has legal status if occupied or used and can be certified at the district level through local land offices. The new legislation does not govern forestland, protected areas and land with natural resources subject to special legislation, mineral and hydrocarbon (sub-surface) rights or land set aside for planned investment zones (USAID 2010).

4.3 Land reform, large-scale investments and political crisis

As discussed above, land reforms initiated in the mid-2000s challenged *de facto* state ownership of land and legally recognised individual and collective land rights, including usufruct rights and those based on customary claims, and devolved authority over land registration to the *commune* level. But the other side of the Malagasy land reform coin, that which aims to foster large-scale international investment in Madagascar's natural resources, is governed much more centrally, by different legislation and institutions, and can in practice undermine local resource access, property rights and tenure security.

In addition to sector-specific legislation, investors' competition for Madagascar's land falls within three basic bodies of national law: the land laws (discussed above), the Decree to Make Investments Compatible with the Environment (Mise en Compatibilité des Investissements avec l'Environnement, or MECIE)² and the Law on Investments³ (Andrianirina Ratsialonana *et al.* 2011). The relevance of the 2005 Land Law is the assumption of private, rather than state, ownership of land, as well as the devolution of authority over land registration to the *commune* level. The MECIE Decree is an environmental mainstreaming mechanism, requiring large investments that entail potential environmental impacts to undergo a scoping process and prepare a social and environmental assessment and remediation plan if applicable. Foreign investments that involve land acquisitions are governed for the most part under the Law on Investments.

Traditionally, foreign companies and individuals have not been permitted to purchase land in Madagascar regardless of the size of their investment. However, under the Law on Investments passed in 2004 and revised in 2008, foreign land ownership of 2.5 hectares was permitted, conditional upon a US\$500,000 investment in Madagascar's real estate, banking, insurance or tourism industries (USAID 2010). The 2008 revision of the investment law states that, while foreign natural or legal entities cannot directly have land access through title deed, they may access land through perpetual lease with a maximum length of 18–99 years if authorised (authorisation allows parties to carry out the necessary legal formalities for property acquisition) by the Economic Development Board of Madagascar (EDBM), a body created under the Madagascar Investment Law as a 'one stop shop' to facilitate the approval of investment projects. Further, companies operating under Malagasy

² Decree No. 99-954 of 15 December 1999, Amended with Decree No. 2004-167.

³ Law No. 2003-028 of 22 August 2003, extended by law 2007-036 of 14 January 2008.

law that are controlled by foreigners have full access to purchase land provided authorisation is granted by the EDBM, even though leases remain the preferred option (Republic of Madagascar 2008).

For eligible investors, with EDBM authorisation, the lease or purchase of land can be negotiated with a number of parties, depending on the legal status of the land in question. In the case of land privately owned by individuals, access can be negotiated with individual landowners who possess title or certificate. In the case of state-owned public or private land or unoccupied land, access can be negotiated with the state. In order to access areas of less than 50 hectares, applications for lease or purchase must be made to the regional State-Owned Land Administration (SOLA) office. Above 50 hectares, application must pass through the central SOLA office and become the responsibility of the Minister in charge of land administration in the Ministry of Town and Country Planning and Decentralization (Andrianirina Ratsialonana *et al.* 2011).

Popular resistance to land deals is common, and can have wide-ranging repercussions, as demonstrated in the context of widely publicised association between ‘back room’ large-scale land deals and the inception of the 2009 Malagasy political crisis. In addition to being affected by global economic crises in the late 2000s, prolonged national-level political tensions came to a head and international attention in Autumn 2008 when it was revealed that South Korean company Daewoo Logistics was negotiating with the Malagasy government for the transfer through lease of 1.3m hectares of arable land in four coastal regions of the country. The Daewoo acquisitions, as well as the less publicised but concurrent 200,000-hectare deal with Indian agribusiness Verun, ultimately failed. Had negotiations succeeded, these export-oriented agribusiness projects would have been highly unfavourable to local populations and indeed led to accusations that President Marc Ravalomanana was selling off Madagascar’s natural heritage and food production capacity to foreign investors (Burnod *et al.* 2011). In March of 2009, Ravalomanana was ousted from office in the context of mass protests by opponents led by Andry Rajoelina, who installed himself as leader of a new government, named the High Transitional Authority (HAT). As stated by Bertelsmann Stiftung’s Transformation Index (BTI 2014), Ravalomanana’s ousting was military-driven and normatively ‘reprehensible’, but the widespread popular discontent with the Ravalomanana government reflected genuine structural concerns. Popular resistance coalesced particularly around the government’s approach to land tenure, extractive resources, contracting, and private sector relationships, while even donors had begun to ask questions about transparency and accountability (BTI 2014).

Despite what have been characterised as imperialist tendencies of the Ravalomanana government, most of the international community considered the transfer of power a *coup d’état* against a democratically elected president, did not recognise the HAT as legitimate and withdrew crucial international support from the country (Freudenberger 2010). Although Madagascar saw the restoration of democratic elections in 2013, the prolonged crisis left the Malagasy economy ‘in tatters’ as many companies pulled out of the country, tourism revenues fell and the government was nearly bankrupted (USAID 2010). What this meant for the majority of Malagasy people was increasing economic, nutritional and interpersonal insecurities that were exacerbated, particularly in the rural south of the country, by prolonged drought and increasing incidence of corruption, violent crime and property theft. While the Malagasy political crisis somewhat slowed the momentum of the agribusiness land grab in Madagascar, the HAT continued to grant mining contracts, with significant implications for land users, to foreign investors (Andrianirina Ratsialonana *et al.* 2011).

5 Mining in Madagascar

Although Madagascar is a negligible consumer of mineral resources, it has played a significant role in the world's production of ilmenite, rutile and zirconium, and other minerals (Yager 2014). Major mineral deposits are scattered throughout the country, including those that contain industrial ores (e.g. graphite, chromite, quartz, mica, iron, nickel and ilmenite), decorative and semi-precious stones (e.g. beryl, labradorite, rock crystal, rhodonite, marble, cordierite, quartz, tourmaline and corundum), precious stones (e.g. ruby, sapphire, emerald and aquamarine) and gold (Sarrasin 2006).

5.1 Madagascar's mining sector reform in African context

Prior to mining sector reforms that have been implemented across the continent in the past 25 years, African states (including Madagascar) were in large part the owners and operators of their respective national mining companies, with state agents fulfilling roles in regard to managing community expectations and claims, social services delivery and environmental impacts at the level of the mine site. The wide-scale reform of African mining regimes since the early 1990s is part of a longer trend in the liberalisation of the mining sector globally. Led by Bretton Woods institutions, and particularly the World Bank, liberalisation of mining and other sectors has been brought about through 'the retrenchment of state authority', a redefining of the role of the state to facilitate its withdrawal from productive activities through the privatisation of state-owned enterprises, including in the minerals sector, in the name of reducing 'fiscal deficit' (Campbell 2010). As a result, as is the story across sectors, the state's role *vis-à-vis* mining has been transformed from primary operator of extractive activities into primary facilitator and monitor of foreign investments in extractive resources (Perks 2012: 253). This process has also engendered a transfer of social and environmental responsibility from a centralised regulatory state to foreign mining companies and, in some instances, public-private partnerships (PPPs) (Perks 2012).

5.2 Summary of Mining Code reform: 1999–2015

By the 1990s, SAPs had already instituted privatisation of national industries, eliminated direct state intervention by restricting the activities of the Office of National Mines and Strategic Industries (OMNIS), and had introduced competition through enforcement of the existing mining codes⁴ (Sarrasin 2006, 2009). However, according to the World Bank, before the mining reform process of the late 1990s, most mining activities were small- to medium-scale artisanal operations with a low overall impact on the economy. Due to corruption, problems with the legal framework, lack of transparency and poor managerial capacity, national-level institutions were not equipped to deal with large-scale mining investments. Procedures for granting mineral rights and investors' concession tenure security were particularly affected, which kept investments for exploration low (Girones, Pugachevsky and Walser 2009: 58). Prior to the passing of the Mining Code in 1999, further major hindrances to the growth of the mining industry in Madagascar included a lack of basic geological data and reliable information on mineral production, a lack of human and material resources to support the growth of the industry, poor transportation infrastructure, poor sectoral performance in relation to GDP growth, high taxation and a lack of mechanisms for enforcement of new environmental regulations (Sarrasin 2006: 393).

The primary goals of the 1999 reforms, driven by the World Bank's Private Sector Development and Capacity Building Project (PATESP), were to link mining laws to

⁴ Law of 31 July 1896, Government Orders No. 60-090 of 5 September 1960 and No. 62-103 of 1 October 1962, and Law No. 90-017 of 20 July 1990, followed by No. 95-016 of 9 August 1995 (Sarrasin 2006: 393).

environmental concerns, to facilitate investment and increase the mining industry's contribution to national economic growth (along the lines of the World Bank's prevailing anti-poverty strategy), to integrate small-scale and artisanal mining activities into the formal economy, and to facilitate the withdrawal of the state from productive mining activities, from participation in the capital of mining companies and from other activities that would bring the state's 'neutrality' into question (Sarrasin 2006; World Bank 2003). The Law on Large-Scale Mining Investments passed in 2001 established a special regime to encourage large-scale mining investment.⁵ Since 2005, this framework has been amended to lower the threshold for eligibility for perks from US\$100m to US\$25m⁶ to further facilitate investments. This framework further gives the right to a series of tax, royalty, legal and customs incentives applicable throughout the term of the mining permit (US Department of State 2015; WTO 2008).

Implementation of reforms saw the reorganisation of public mining sector administration, the establishment of regional and central Offices of the Mining Cadastre (Bureau du Cadastre Minier de Madagascar, or BCMM) an autonomous agency under the direct administration of the national Ministry Near the President in Charge of Mines and Petroleum (Ministère auprès de la Présidence chargé des Mines et du Pétrole, or MPMP, which was prior to 2015 the Ministry of Energy and Mines), development of a computer-based Mining Cadastre and Registry System (ostensibly open to public consultation) to speed concession application and registration procedures, the implementation of a computerised environmental management unit and the institution of fiscal benefits for investors as laid out in the 2001 Law on Large-Scale Mining Investments (Ffooks and Glass 2015; Girones *et al.* 2009; World Bank 2003).

Mining operators could now acquire licences to sub-surface mineral rights on a 'first come first served' basis through application to a BCMM, and negotiation of surface rights with individual local landowners at the site level are considered the responsibility of the operator (Global Investment and Business Center 2013; Republic of Madagascar 2002). As with land investments discussed in Section 4.3, investors must obtain EDBM authorisation, and then the lease or purchase of surface rights can be negotiated. The inter-ministerial MECIE Decree of 1999 further requires operators to obtain environmental authorisation under the Ministry of the Environment prior to beginning research or mining operations.

5.3 Legal pluralism in the governance of mining in Madagascar

Although the legal framework governing mining activities flows from the Mining Code and associated legislation, mining activities in Madagascar are in fact pluralistically governed – shaped and regulated by a number of additional directives, rules, guidelines and even relict practices. In some instances, despite the push toward privatisation of the mining industry brought about by SAPs, pre-reform state institutions can be involved in the capital of mining companies; for example, QMM is a Malagasy mining company that, since the 1980s, has been jointly owned by Madagascar's OMNIS, which controls 20 per cent of the company, and a Canadian subsidiary of UK-based Rio Tinto, which controls 80 per cent of the company (Rio Tinto 2015). In other instances, these are inter-ministerial decrees like the MECIE Decree discussed above that is meant to mainstream environmental responsibility in development projects across sectors.

Other sources of pluralism in mining governance come from the institutional directives of different international donor and regulatory groups. For example, the MECIE Decree requires the production of an Environmental Impact Assessment (EIA) before EDBM authorisation and mining licences can be granted, but does not offer specific guidelines for

⁵ Law No. 20-2001 of 8 October 2001 and Implementing Decree No. 2003-784.

⁶ Law No. 2005-022 of 27 July 2005.

environmental protection or social risk management. Because of this, the Toliara Sands operation in southwestern Madagascar opted to adopt the International Finance Corporation (IFC) guidance notes on biodiversity based on Performance Standard 6 and a model for a social and environmental management system based on Performance Standard 1 (Bezuidenhout 2013; IFC 2012). Similarly, Malagasy law allows, but does not mandate, that environmentally destructive mining operations establish biodiversity offsetting programmes. However, biodiversity offsetting is required for Madagascar's inclusion in the Extractive Industry Trade Initiative (EITI) and has been adopted by operators across the country, including World Titanium Resources, Ambatovy, QMM, Wisco, Guanomad, Exxonmobil and others (USAID 2014). In other instances, mining activities are affected by national-level laws governing activities in other sectors, particularly when a project is at the intersection of different ministerial jurisdictions through linkages to the governance of land, water, infrastructure development, forest and marine conservation activities.

6 Case studies: the mining–conservation–conflict nexus

The restructuring of the Malagasy state in relation to economic production since the 1980s and neoliberal reform processes since the 1990s has transformed resource governance at the margins. Tensions between customary resource management systems and a centralised but ‘distant’ state bureaucracy have been complicated further by the diffusion of power to national and international NGOs, private companies, and other institutions in collaboration with an increasingly fragmented yet nonetheless essential state. Even though ‘communities’ have ostensibly been empowered through policy reform as well, it is rare for rural communities to withhold consent during the consultation process, and disagreements and conflicts tend to emerge in reaction to, rather than in anticipation of, land dispossession. This may be due to high initial expectations of economic opportunities and wealth transfer on the part of local leaders, but is also surely related to a lack of access to economic and institutional alternatives, political pressure and fears of retaliation by those in more powerful positions, and misconceptions about the legal framework and local people’s rights in the face of the law (Ferguson *et al.* 2014; Gingembre 2015: 562).

In the two cases discussed in this section, we explore how the changing policy environment in Madagascar has interacted with contextual factors to produce unique contestations and conflict dynamics in two settings in rural southern Madagascar. The QMM operation in southeastern Madagascar and the more recently operating Ranobe mine, part of a larger set of concessions in southwestern Madagascar known as Toliara Sands, are both mineral sands operations that have become important sites of contestation and conflict that have galvanised new social movements around local rights, environmental justice and the distribution of benefits of extractive development. Because of historical social, institutional and legal trends in Madagascar, outlined in the first sections of this report, local mine projects have become important sites for research aimed at clarifying our understanding of relationships between cross-sectoral policy reform, the reconfiguration of the roles of the state, the private sector and communities, and emerging forms of conflict at the nexus of extractive development, land tenure and environmental preservation.

6.1 QMM Rio Tinto, Fort Dauphin, southeastern Madagascar

QIT Madagascar Minerals (QMM) is a mineral sands project based near the town of Fort Dauphin (Tolagnaro) in southeastern Madagascar. Since the 1980s, QMM has been a jointly owned company as part of a PPP between Madagascar’s OMNIS, which controls 20 per cent of the company, and QIT Fer et Titane, a Canadian subsidiary of Rio Tinto⁷ that controls 80 per cent of the company (Rio Tinto 2015). The QMM project uses active dredge mining to extract a titanium dioxide ore that is exported and refined into a white pigment used to colour a variety of consumer goods, from paint to toothpaste, and is the largest development project in Madagascar (Rio Tinto 2015). The three mine sites involved in the project are set to be mined sequentially under a long-term land lease from the Malagasy government (Gerety 2009; Rio Tinto 2014; Seagle 2009, 2012, 2013).

Starting in 1986, QMM conducted an extensive exploration programme along the eastern coast of Madagascar searching for heavy mineral sands, which are a source of titanium dioxide in the form of ilmenite and rutile. These investigations led to the discovery of what was deemed a viable ore deposit in the Anosy region of Madagascar near Fort Dauphin,

⁷ Rio Tinto is a UK-based British–Australian multinational mining company, and is one of the largest mining companies in the world.

a town also known locally as Tolagnaro. These deposits, identified at the sites of Mandena, Sainte Luce, and Petriky, are located in one of the poorest and most underdeveloped parts of Madagascar; most of the residents of Anosy are members of farming families dependent on land and forest resources for subsistence and market income and an estimated 82 per cent of people living in the region make less than the equivalent of US\$1 per day. The deposits are also located in an ecologically sensitive area, underneath some of the last remnant littoral forest in southeastern Madagascar in one of the most ecologically diverse areas of the country (Vincelette, Dean and Ganzhorn 2007: 1).

Following about 20 years of research and exploration, an Environmental and Social Impact Assessment (ESIA) was completed in 2001, and QMM received legal licence for operations in 2005, when the Malagasy government also agreed to contribute US\$35m to the development of infrastructure. This funding came from a World Bank 'Integrated Growth Poles' project aimed at strengthening finance, export capacity and private sector development. In this particular case, the contribution was earmarked to fund the renovation of the Ehoala Port and urban infrastructure of Fort Dauphin to facilitate QMM's export (Seagle 2013).

At the IUCN World Conservation Congress in Bangkok in 2004, representatives of Rio Tinto announced that it 'aims to have a net positive impact (NPI) on biodiversity by minimising the negative impacts of its activities and by making appropriate contributions to conservation in the regions in which it operates' (Turner 2014). This is the central idea behind Rio Tinto's subsequent global 'no net loss'/'net positive impact', or NPI, approach, in which the company applies a number of tools and methods, including spatial strategies of voluntary biodiversity offsetting bundled with carbon and ecosystem services accounting and trading, with payments for ecosystem services (PES) as compensatory finance mechanism, to fund conservation activities outside of active mining zones (Anstee 2008; WBCSD 2015).

This strategy, which has been previously piloted by the company in the context of the Dampier Salt operations in Western Australia and in the context of copper mining in Mongolia, links place-based extractive and conservation activities to both international voluntary markets and a variety of international voluntary and compliance-based finance mechanisms and market-like instruments, which vary depending on the national policy contexts of particular mining projects (Turner 2014). While the QMM project is described by company literature as a third 'pilot project' for the NPI approach, the company has experience outside the NPI with environmental impact mitigation activities in diverse contexts, from conservation banking in the US to linkage with the national REDD+ strategy in Guinea (Anstee 2008; Rio Tinto 2014).

The QMM project began in 2005 with infrastructure development and the leasing, and relocation of local Malagasy residents from, approximately 6,000 hectares of territory. Active extraction at the first site, Mandena, began in 2009, and mine managers contend that, at peak capacity, it could produce as much as two million tonnes of ilmenite (worth about US\$100 per tonne for unrefined ore) per year to be exported for processing abroad (Seagle 2013). Of the full 6,000-hectare project concession, the Mandena portion of the project comprised approximately 2,000 hectares, and 230 hectares of this were set aside for the Mandena biodiversity conservation area, which is advertised as a 'biodiversity gene bank' for future restoration activities (under the NPI strategy) in the area and is further promoted by QMM as a destination for ecotourism (Seagle 2009).

In addition to the support of the World Bank and the partnership between Rio Tinto and the Malagasy government, a number of international environmental and development organisations support Rio Tinto's NPI approach in Madagascar. The IUCN entered a formal partnership with Rio Tinto in 2010 after nearly ten years of less formal cooperation. Other partners include organisations such as Bird Life International, the Wildlife Conservation

Society (WCS), Conservation International (CI), Kew Botanical Gardens and USAID. Rio Tinto's partner organisations praise the company's scientific approach to biodiversity offsetting and portray the company as an ethical, 'model' mining company that goes above and beyond legal requirements for addressing social and environmental issues (Seagle 2009 :15).

The QMM project has long been fraught with controversy on a number of grounds. On the international field, the NPI biodiversity offsetting strategy is considered by a number of international environmental groups to be something of an environmental shell game, an attempt to 'greenwash' inherently 'brown' industrial activities and resource grabbing. On a local level, labour conflicts have occurred, and there have been substantial and ongoing incidents between mine operators and members of local communities that have been dramatically affected by the project. Many among the affected populations are the poorest of the poor and are dependent on natural resources for their livelihoods in an absolute sense, and compensation for resources lost is widely considered unfair in the local area and is far below World Bank regulations (Seagle 2013). According to Seagle (2013), some Malagasy refer to the QMM mine as, '*mivarotra tanindrazana* – "selling off the land of the ancestors" – a proverb which emerged during the French colonial era and is linked to historical experiences of dispossession' (Seagle 2013: 7).

Protests and general strikes have occurred around the QMM project site since mining activities began in 2009, with hundreds of Malagasy people from around the region striking against loss of forest access, involuntary relocation, unfair compensation for lost lands and livelihoods, the destruction of sacred forests and removal of ancestral tombs, and widely perceived unfairness in QMM's practice of importing mine workers from other countries and regions rather than training and hiring local people (as had been promised during consultations) to work on projects. A particularly large protest occurred in January 2013, in which hundreds of lightly armed protestors, many of whom had experienced eviction from lands now controlled by the mines, blocked roads and trapped employees (including the chief of Malagasy operations) in a mining site. After the company threatened to withdraw from all operations in Madagascar, the protest was put down through government military force (Seagle 2013). Some members of affected local populations, with assistance from international advocacy groups, took QMM to court over the issue of inequitable compensation for land, but the case was dismissed in 2013 (*The Telegraph* 2013). Despite public information campaigns on the part of QMM in an attempt to improve relations on the ground, these ongoing conflicts and controversies have resulted in a partial scaling-back of QMM's project activities and plans for expansion of mining activities past the first site were scaled back, at least temporarily, in 2014.

6.2 Ranobe mine, Toliara Sands, southwestern Madagascar

Compared to QMM, the Toliara Sands project is a more recent mineral sands development and does not involve co-ownership by OMNIS or any other government agency. It is located in the Atsimo-Andrefana region in coastal southwestern Madagascar, in an underdeveloped and extremely poor agricultural region north of the provincial capital and port city of Toliara. Toliara Sands is wholly owned by Australian mining company World Titanium Resources Ltd through its Madagascar-based subsidiary, Exploitation Madagascar SARL, and includes one licensed mining property, Ranobe, and three further exploration sites at Ankililoaka, Basibasy and Morombe⁸ (Ranscome 2015). Unlike QMM, which is part of a global network of extractive operations operated by Rio Tinto and subsidiaries, Madagascar Resources NL, later World Titanium Resources, was established with the expressed purpose to explore mineral sands in southwestern Madagascar (Ranscome 2015: 18). The Ranobe mine is

⁸ The three exploration sites have been previously licensed to World Titanium Resources Ltd and are currently due for renewal. However, granting of new permits and licences has been suspended pending mining reforms slated for early 2016.

considered the flagship of the Toliara Sands development, and is projected to produce over 407,000 tonnes of ilmenite and 44,000 tonnes of zircon-rich concentrate through dry mining and on-site processing per year through an estimated initial 21-year mine life (WTR 2016).

Initial exploration and feasibility studies of all four sites have been carried out since 1999 through various joint and co-funding ventures with other mining companies, and these activities identified a number of promising deposits in the region. In the late 2000s, an ESIA was prepared and submitted to the Office National pour l'Environnement (ONE) and in 2012, legal mining licences and water rights were granted for the Ranobe operation (Bezuidenhout 2013). Development of the mine has been delayed by funding shortfalls as a number of partners have joined and subsequently withdrawn from operations over the years. Since the initial mining permit was granted, the project has been modified in order to cut costs and a new ESIA, based on Malagasy law and IFC guidance notes on biodiversity and for social and environmental management, was prepared and submitted to ONE in 2014, and operations went forward on a limited basis that year (Bezuidenhout 2013; IFC 2012; WTR 2014).

The Ranobe operators propose a dry mining process, environmental remediation following the completion of mining operations, and biodiversity and carbon offsetting to mitigate environmental damage for the duration of the project. In terms of production, on-site ore concentration and overland transport to port is a more cost-effective means of extraction than dredge mining. In the course of the proposed production process, dry mining at Ranobe produces ore through mechanised sand displacement (truck and front-loader), which is then mixed with water into a slurry and pumped to an on-site concentrator (primary concentrator plant, or PCP). After loading into road trains the resulting heavy mineral concentrate (HMC) will be hauled approximately 40km to a transfer pumping station via a dedicated haul road and pumped, via a 14km slurry pipeline, to a mineral separation plant (MSP) located at the existing port of Toliara, from which it is shipped by sea (Bezuidenhout 2013).

Even though dry mining may seem less environmentally impactful than dredge mining, the impacts, like the process, are qualitatively different yet significant. According to the ESIA, the entire mining area, which is about 16km long and 1–2km wide, will be cleared of all vegetation, and topsoil will be stripped and stored for later environmental rehabilitation. Backfilling of the actively mined areas with sand tailings (concentrated waste materials left over after valuable material has been removed from the ore) from the PCP and MSP will occur continuously as the mining progresses. It is important to note that, due to the natural occurrence of uranium and thorium in the area, the tailings will be potentially hazardous to humans and other organisms due to significantly higher levels of radiation contained in the concentrated tailings when compared to the natural background radiation levels of the original sand. Both the mine operations and the use of the new haul road connecting the mine site to the port are projected to result in high wildlife mortality risk and threats to biodiversity as a result of pollution, fire, and other causes (Bezuidenhout 2013).

The rehabilitation and mitigation plan is not set in stone at this early date, but proposed options are described in the ESIA as well. Clear-cutting and mining activities will be followed by rehabilitation of the backfilled areas through replacing topsoil and replanting with trees/woodlots and crops over time. Over the course of the mine life, operators propose to develop both carbon and biodiversity offset strategies, the former through accounting for trees planted through rehabilitative and mitigating activities, and the latter with input and support from local agencies, most likely to be carried out through financial contributions to the management of nearby protected areas (Bezuidenhout 2013).

The Ranobe mine is a highly contentious development, not only constituting competition for land with local stakeholders but also a threat to rare forested ecosystems, which has led to long-standing conflicts with conservation researchers and environmentalists (Waeber *et al.*

2015). According to the 2013 social impact assessment, the mine operators are cognizant of the fact that mining activities will be severely disruptive to the livelihoods and wellbeing of people living in the project area. In an attempt to be proactive, the company has planned or carried out consultation and social outreach activities including the restoration of wells and installation of foot pumps in three villages, paying for four visits by Australian doctors to Toliara, donating furniture to local schools and improving 'sport facilities'. A grievance reporting mechanism was also being designed as of 2015 (WTR 2015; Reilly 2013; Bezuidenhout 2013). However, these activities have not been sufficient to counter a number of serious grievances and ongoing concerns on the part of residents of the mining area that have been documented by Malagasy researchers and a growing network of community advocates and activists.

According to Professor Robert Tsiazonera⁹ (pers. comm. 2016), at the outset of negotiations many Malagasy people felt that the Toliara Sands represented an important opportunity for regional development in terms of improved infrastructure and employment. This initial optimism facilitated the establishment of the company in the region, but soon faded as people near Ranobe and the other exploration sites became disillusioned with the operation, feeling that Toliara Sands was a 'cursed' (*maudit*) enterprise that could not financially support its commitments and that its representatives were not responsive to local grievances and reneged on agreements made with representatives of local communities. Some locals have expressed the opinion that operators 'tricked' villagers who live in the vicinity of the Ranobe site in order to receive the mining permit and lease surface rights, which has led to strong protests on the basis of the strong perception that the Toliara Sands project is *mavandy* (full of lies).

Local grievances have been made on a number of grounds. Professor Jaovola Tombo, who has conducted interviews with mayors and village heads in affected areas as well as with Malagasy affiliates of the mining operation, points to three major categories of problems that give rise to social conflict around the Ranobe mine and other exploration sites. The first is the effects of mine activities on the basis of rural livelihoods that include community forestry, hunting and gathering, farming, livestock grazing and marketing. Second, the mining area (the location of the good 'black sands', or *fasymainty*) is in fact an important cultural landscape, including tombs of local residents of different ethnic groups. Third, there has been resistance and outright opposition to the operation by several powerful clans (extended family groups based on descent) and village mayors in the region on the basis that promised compensation has not been made as agreed (Tombo, pers. comm. 2016).

A number of ancestral tombs belonging to local Masikoro and Antandroy people exist within the mining area. In southwestern Madagascar, ancestral tombs have unique cultural and practical salience. For example, tombs are cultural and historical 'anchors' for living people, representing ritual and cosmological connections between living people and their forebears. Tombs are also an important means of staking both customary and formal claims to territory for local people. In this region, removal or relocation of tombs is extremely problematic to say the least, particularly if initiated by foreigners. While some compensation to families whose tombs have been marked for removal was promised, a good portion of these funds was allegedly paid to consultants rather than affected families, and other families outright refused tomb removal. Masikoro require extreme circumstances and formal ceremonies to allow tomb relocation and for Antandroy tomb removal or relocation is forbidden. World Titanium Resources is intent on removing the tombs from the site despite local protests and

⁹ Professor Robert Tsiazonera, a historian, and Professor Jaovola Tombo, a human geographer, both based at the University of Toliara, are leading Malagasy researchers with expertise on ethnohistory, livelihoods, development and conservation history and community conflicts in southwestern Madagascar. They are among a very few researchers who have been engaged in documenting local responses to, and social and environmental impacts of, the Ranobe mine and broader Toliara Sands operations.

the fact that these tombs are sacred to the descendants of the people who are interred in them (Tsiazonera, pers. comm. 2016; Tombo, pers. comm. 2016).

Aside from the issue of tomb removal, the social conflicts emerging around the Ranobe mine are very complex. To give another example, this is particularly true in regard to the recruitment of employees. The Malagasy Mining Code requires operators to employ Malagasy workers for jobs of appropriate skill levels. In the beginning, most Malagasy recruited for employment with the mine were from the national capital of Antananarivo (the location of Toliara Sands headquarters), which did not sit well at all with people from the Toliara region, as this was a move akin to hiring foreign workers when mine operations are causing displacement of livelihoods for people on a local level. Senior villagers who live around the operating site demand that their children, many of whom lack alternative livelihood or formal employment options in an absolute sense, be considered for employment by World Titanium Resources (WTR). This and other factors have contributed to factionalisation and conflicts within villages between people who favour and oppose mining operations. There are allegations that representatives of the Toliara Sands project have actually paid some villagers in cash or goods to locally advocate for the company against the peasants who say that the mining activities are a danger to their way of life and existence (Tsiazonera, pers. comm. 2016).

The Ranobe mine is located in one of the most ecologically diverse parts of the country, in a dry, sub-arid ecological transition zone between dry deciduous forest and spiny thickets, which comprises a patchwork of PAs managed under a variety of governance arrangements. For example, the mining concession is just north of the northern boundary of the Ranobe protected area (called variously the Fiherenana–Manombo Complex, the Southern Mikea/*Mikea Sud*, Toliara Forest, *Ala Maiky* and PK32–Ranobe), which has long been recognised as a conservation priority area and is co-managed between several NGOs and local communities under SAPM. It is also situated just southeast of the buffer zone of the restrictive Mikea Forest National Park administered by Madagascar National Parks (formerly ANGAP) (Blanc-Pamard 2009; Gardner *et al.* 2009; Huff 2012, 2014; WWF 2015). The mine's proximity to conservation priority areas has been a source of conflict with environmental researchers and activists for several years prior to the establishment of these PAs. This is because, throughout the 2000s, the proposed extent of these two PAs was reduced by thousands of hectares and boundaries redrawn several times in order to accommodate the Ranobe, Ankililoaka, Basibasy and Morombe mining concessions, which delayed PA establishment by several years.

A number of artists from the region, including popular musicians Théo-Rakotovao (stage name Mikea), Bacom and Jarifa, have also reacted publicly against the Toliara Sands development. Rakotovao has been part of the establishment of a local advocacy group called the Society for the Defence of Life, Human Rights and the Environment (*Défense de la Vie, des Droits Humains et de l'Environnement*, or *Miaro ny Aina sy Zon'olombelona ary Tontolo iainana – MA.ZO.TO.*) and even released an album titled *Hazolava* in an effort to alert national and international audiences to the negative social and environmental impacts of the project. MA.ZO.TO. and other activist groups, including the *Collectif pour la Defense des Terres Malgaches* (TANY) have contributed to national and international efforts to stop the project on the basis of its negative impacts.

As of early 2016, Toliara Sands exploration and mining operations, including those at the Ranobe site, have been temporarily suspended due to mine site conflicts and pending reforms to the national mining code.

7 Conclusions and policy implications

With the surge in large-scale mining operations throughout Africa in contexts where population needs are considerable and development efforts limited, the policy environment necessitates the mitigation of a variety of conflicts and risks at mine site level (Perks 2012). In response to a range of environmental and human rights incidents involving mining companies across various African countries, regulations as well as voluntary codes, often under the banner of Corporate Social Responsibility (CSR), have been developed to prevent or minimise conflict and risk (Perks 2012: 253). But in order to ensure that extractive industries sufficiently address social and environmental issues, governments must have the capacity to perform monitoring roles as well as possess the political will to perform them (Perks 2012).

National officials are trying to solve these problems through policy reform, but government efforts so far have been primarily symbolic and have done nothing to reduce the tensions that exist at the level of the mine site. Due to a lack of clarity and enforcement mechanisms in the existing land laws and Mining Code, and the fact that large investors are essentially self-regulators responsible for ensuring that environmental regulations and land laws are respected at the level of the mine site, environmental concerns and the legal rights and substantive interests of local populations are often subordinated to the primary goals of extractive operations, leading to increased risk of conflicts on a number of levels. As the Malagasy government tackles another round of Mining Code reforms for intended implementation in 2016, partially in response to the proliferation of conflicts around mining investments, this report and the cases described within it highlight important problems and gaps in current policy that should be addressed by national-level policymakers and their international partners.

7.1 Legal pluralism, policy confusion and government capacity

Because of the legal pluralism that pervades the domain of foreign investment in Madagascar, individual mining operations are governed by a complex regulatory patchwork that lacks consistent oversight and enforcement mechanisms. This leads to situations characterised by confusion and uncertainty, exacerbated by attempts to operationalise contradictory policies or directives, corruption and a poor understanding of policies on the part of even ministerial and agency employees. In extreme cases, this can lead to disputes between different ministries and agencies or between government representatives, mining companies and local community members, and also to situations in which particular areas of land are put to apparently conflicting uses.

Localised conflicts are related to dynamic factors, including unsatisfied expectations for human development on the part of people living near or at the mine site, unemployment or unfair employment practices, and the transformative effects of large mining operations on formal and informal economies, as well as complex relations around mining activities that are internal to different groups of stakeholders (Gingembre 2015; Perks 2012). Across salient sectors, improving cooperation across ministries and agencies, reducing corruption and enhancing the government's political will and capacity for monitoring and enforcement of just and internally consistent policies would be a huge step toward reducing risk of conflicts.

7.2 Can Madagascar reconcile environmental goals, foreign investment and poverty reduction by facilitating large-scale mining investments?

As it currently stands, the answer to the above question is no. Between the 1980s and the late 2000s, Madagascar's primary efforts at international 'branding' undeniably centred on biodiversity. At the same time that Madagascar was attracting donor support for the expansion of its environmental protection capacity and environmental mainstreaming, the land, mining and investment codes were being rewritten to draw large-scale international investment in agriculture and especially mining. Following this, in recent years, there has been increased emphasis on advertising Madagascar's mineral and hydrocarbon assets as an untapped opportunity for foreign investors seeking 'hidden treasures' in an island 'El Dorado' (EDBM 2016).

It is true that reforms have indeed made Madagascar's mining sector a more appealing option for foreign investors and mining's share of the national economy has grown. However, state restructuring and reforms across mining, land and environmental sectors also come with inherent contradictions, and at a high cost for governance capabilities and, most significantly, for local populations and ecologies. In the context created through structural adjustment, the government of Madagascar's superficial bureaucracy has expanded, sectors have become increasingly siloed and the regulatory capacity of the state has been undermined. Furthermore, in the country's financial situation, ministerial and agency employees literally cannot afford to reject large mining investments even when they conflict with environmental goals or will cause outright harm to rare ecosystems. When mining investments and environmental preservation come into conflict, as has occurred in both cases presented in this report, it is clear that mining wins out.

In the context of Mining Code reform (which will surely continue after 2016), efforts toward resolving this contradiction should be prioritised. Donors should encourage the establishment of third-party mechanisms to evaluate ESIA's prior to awarding mineral rights to operations, with emphasis on avoiding or reducing initial harm of extractive activities to ecosystemic functions rather than the current model that places emphasis on mitigation through (often vague) offsetting and rehabilitation plans that will only be implemented years or decades into the future.

7.3 Land tenure security and trust in institutions are crucial to avoiding conflict and achieving justice

Members of local communities with the most to lose often bear the highest costs of the establishment of both protected areas and extractive development, having insufficient access to information and legal protection from exploitative arrangements. Furthermore, programmes that involve shifts in land control from local users to the state, private companies or other extra-local entities are highly controversial among Malagasy people. While some authors attribute this to Malagasy culture and traditional associations of land and ancestors, others point out that there are significant justice issues associated with granting land access to investors. The category of state-owned land, particularly when it comes to forestland and the designation of pasturelands as 'unoccupied' and open to state ownership claims, is often highly contested by local users. The acquisitions process is also an object of criticism. Graft is a common occurrence in the application process, and consultations with local resource users run the risk of appearing to be an afterthought or symbolic gesture. As a result, on a local level, long experience with a distant-yet-threatening state, corrupt government employees, unscrupulous private sector operators and unfulfilled promises for local development and benefits sharing have fuelled the widespread perceptions that extra-local actors interested in local land cannot be trusted and that local

villagers have no power to formally refuse fencing or land deals. On a social and policy level, historical experience, state restructuring and land tenure security appear to lie at the centre of the mining–environmental protection–conflict nexus in Madagascar.

A study by Jacoby and Minten (2007) for the World Bank found, contrary to stated local-level development goals of national land reform, that the economic impact of land reform has been minimal in Madagascar. They found that land registration does not significantly affect rural landholders' access to credit, rates of investment, crop yields or the establishment of local land markets (Minten and Barrett 2007). Furthermore, while land reform has attempted to reconcile the contradictions between customary and national systems and simplify procedures for obtaining land certificates, land conflicts remain common and tenure insecurity persists. Tenure security varies depending on the characteristics of customary systems and, despite attempts to reconcile them, due to conflicts between the customary systems and formal land laws. Furthermore, while most land rights held under customary tenure are clearly defined and understood, people can face difficulties securing land due to a lack of access to legal information (USAID 2010: 6). The availability of legal information and bureaucratic literacy can help people overcome social, bureaucratic and cost barriers to accessing land certificates, but problems with transparency exacerbate barriers, especially for the poor. Certification can offer a solution to some local land conflicts, but the effects of land reform on tenure security depend on land users' perceptions of the legitimacy, reliability and accessibility of new institutions, which are shaped greatly by their observation of technical and sociopolitical practice at the local level (Burnod *et al.* 2012).

7.4 Consultation protocols and gaining access to local lands for development

Procedures for obtaining land access from local individuals or groups for conservation, mining, or agricultural development need increased transparency and strong mechanisms to ensure not only that local-level users and owners of land are consulted and consent to land deals, but also that stakeholders at the local level have the power to reject deals, to legally demand fair compensation for loss of livelihoods and access to state-owned lands, to actively shape land deals and to negotiate for fair benefits-sharing schemes. Under current practice, when consultation with local stakeholders does take place, there are often questions as to the true representativeness of the locals selected to attend meetings, and to the actual level of consultation that takes place (Andrianirina Ratsialonana *et al.* 2011).

The bargaining power of villagers is hindered by poor access to economic and institutional alternatives, long mistrust of the state exacerbated by media publicisation of 'secret' large-scale land deals, and the entrenched idea that all untitled land is state-owned (Burnod, Gingembre and Andrianirina Ratsialonana 2013; Ferguson *et al.* 2014; Gingembre 2015). Further, because of the centralisation of the investments facilitation process and the SOLA, in cases of organised local opposition to a deal there is a high likelihood that the dispute will be resolved at the level of state services without the participation of local populations, and under strong political pressure in support of investors (Andrianirina Ratsialonana *et al.* 2011). According to Gingembre, consultations often turn into 'rubberstamping procedures instead of spaces of participatory decision-making' (2015: 562); this is because Madagascar lacks effective mechanisms for local land users to reject or substantively contribute to shaping land deals.

7.5 Anticipating and resolving conflicts

In the context of extractive development, conflict can lead to violence, but can also result in tensions, ideological insurgencies, new social movements and other forms of antagonism and resistance that arise on different jurisdictional levels, cross scales, and which involve diverse actors, organisations and governance structures (Huff 2015). In this sense, in the

absence of escalation and harm, conflict is not always necessarily a bad thing, as the examination of emerging conflicts can highlight unanticipated and emerging issues, grievances and trends that are of broad significance to policy and to the wellbeing of stakeholders. In addition to enhancing the recognition of the rights of local stakeholders in the context of development, developing guidance on means of assessing unanticipated conflicts, trade-offs and synergies as they arise in the context of large-scale investment is crucial, as is the institution of mechanisms for initiating participatory and transparent processes of conflict resolution prior to escalation. Indeed, processes of conflict resolution can be important to achieving and enhancing justice and development outcomes in situations characterised by asymmetrical economic and power relations and legacies of mistrust and exploitation.

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