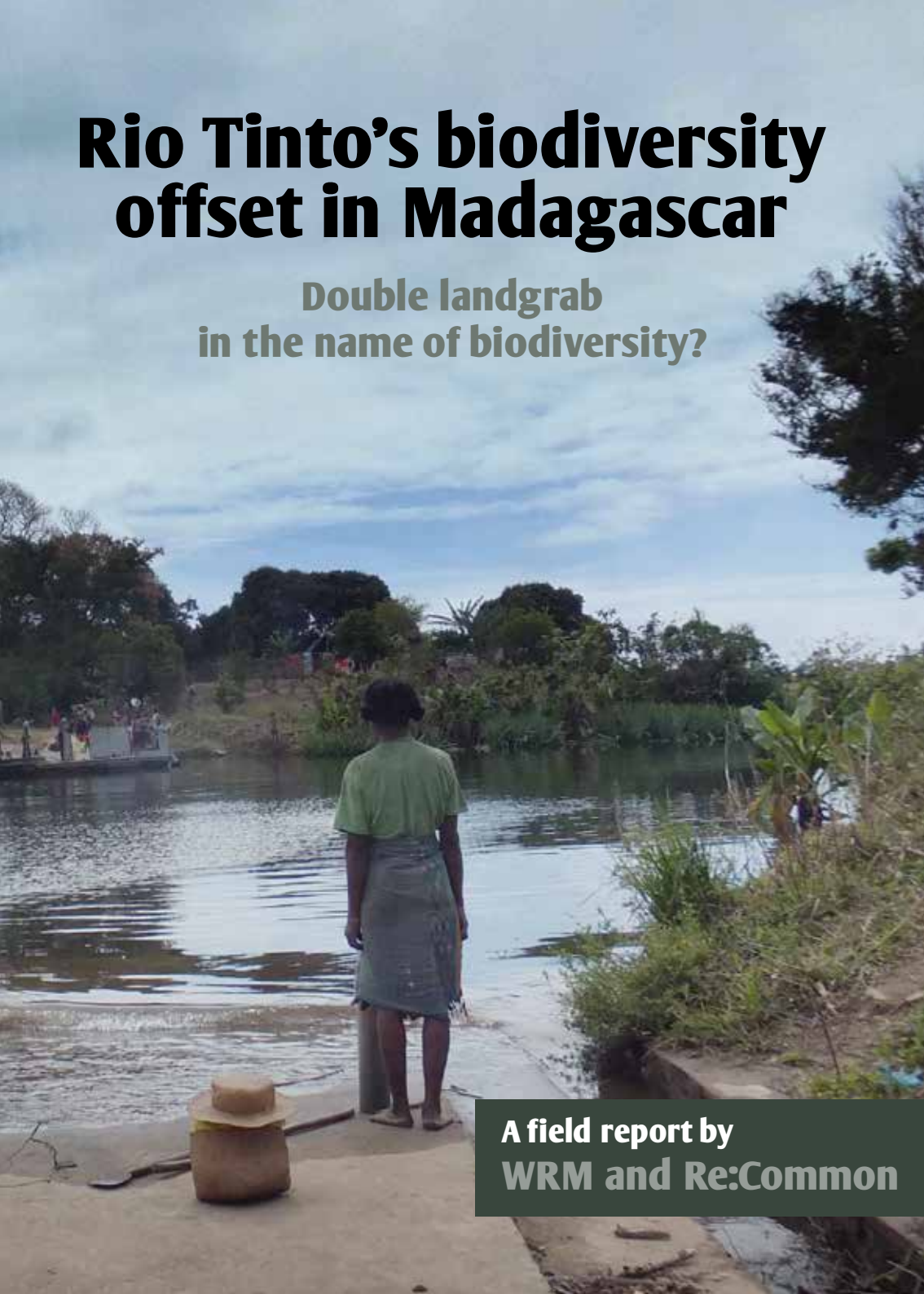
Rio Tinto's biodiversity offset in Madagascar

Double landgrab in the name of biodiversity?



A field report by

WRM and Re:Common

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Credits

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Introduction

In recent years mining companies have become actively engaged in promoting 'biodiversity offsetting' as a way of 'greening' the mining sector.

Biodiversity offsets are effectively a promise to make up for destroying biodiversity in one location by protecting biodiversity said to be at risk of being said to be at risk elsewhere. In practice, this gives companies a licence to continue with environmentally destructive operations. As a result the use of biodiversity offsetting is expanding in the mining, monoculture plantations, large infrastructure, hydropower dams etc. industries. It also helps corporations to attract financing (...)..

The Rio Tinto QMM[1] biodiversity offset project in the Anosy region of southeastern Madagascar is probably the most widely advertised offset project in the mining sector. It is intended to compensate for biodiversity loss resulting from the destruction of a unique and rare coastal forest at Rio Tinto QMM's ilmenite mining site at Fort Dauphin, also in Madagascar's Anosy region.

Rio Tinto's project also involves the International Union for the Conservation of Nature (IUCN),[2] Kew and Missouri Botanical Gardens, international and Malagasy conservation NGOs (including the national partner of BirdLife International), and a Biodiversity Advisory Committee with members from academia and conservation NGOs.

Many glossy brochures - published by IUCN, BirdLife International, the World Business Council on Sustainable Development, and the Business and Biodiversity Offsets Programme (BBOP) for example - showcase the Rio Tinto QMM initiative as an exemplary biodiversity offset initiative. They repeat the mining giant's promise that mining will not only compensate for biodiversity loss but even have a "Net Positive Impact" on biodiversity in the end.

Rio Tinto claims that the QMM ilmenite mine at Fort Dauphin has a "Net Positive Impact" on biodiversity for two reasons. Firstly, they argue that the forests within the mining

Land traditionally used for grazing and subsistence food production at the edge of Tsitongambarika forest near the Bemangidy biodiversity offset site.

concession would have been destroyed anyway by the local population over the coming decades. This narrative has been questioned in studies tracing the colonial roots of the argument that presents an image of traditional land use of Malagasy people as 'irrational' or 'inefficient'.[3] Secondly, the company argues that it will pay for restoration of overused forests at both the mining and various biodiversity offset sites, so that biodiversity in these forests can recover.[4]

Academic studies have produced detailed descriptions comparing the species in the forest at the offset site and in the forest that will be destroyed by the Rio Tinto QMM ilmenite mine. Journal articles have analysed the impact of mining on peasant communities and fisherfolk in the immediate vicinity of the mining concession. Missing, however, is information about how communities engaged in or affected by the biodiversity offset project itself (i.e. outside the mining concession) are impacted.

What do those most directly affected by the Rio Tinto QMM biodiversity offset make of this pilot initiative in the mining sector?

A joint Re:Common and World Rainforest Movement (WRM) field investigation in September 2015 sought the views of villagers living in the vicinity of a Rio Tinto QMM offset project site. In particular, we visited communities living near Bemangidy, one of the three sites that make up the

Rio Tinto QMM biodiversity offset plan for the company's Fort Dauphin ilmenite mine.[5]

We found that community access to the forest had been severely restricted, that little information has been made available to communities about what biodiversity offsets projects actually are. Communities have received even less information about the industries financing or buying 'offset credits' from such projects (often airlines and transnational corporations from the mining, oil, or agribusiness sectors) or why they do so (for more detail see Chapter 2, 'What are Biodiversity Offset Projects?'). The communities we visited had not been informed that what had been presented to them as a "conservation project" was actually designed to compensate for Rio Tinto QMM's ilmenite mine destroying unique and rare littoral forest near the city of Fort Dauphin, some 50 km to the south of the Bemangidy-Ivohibe biodiversity offset site.

The company's and conservation NGO brochures do explain the link between restrictions on community forest use at Bemangidy, the planting of trees and the biodiversity offset, but these links have not been explained to the communities affected. What has been explained, however—and also imposed—are restrictions on the way villagers can now use the forest.

Villagers felt that restrictions had been imposed without negotiation and with little regard for their situation. Income-generating alternatives to alleviate the loss of access to the forest had been promised but have yet to materialise while severe restrictions on community forest use are already in place. A meeting with a conservation NGO in charge of implementation also revealed that ethically deplorable methods have been used to ensure compliance with these restrictions on forest use (see Section 6, Reflections on the Field Investigation, for more detail).

With this report we hope to advance the critical analysis of biodiversity offsets by:

- Sharing information with communities affected by or approached to participate in biodiversity offset projects. We believe it is particularly important to share information about the severe negative impacts that the Rio Tinto QMM biodiversity offset is having on communities at the Bemangidy-Ivohibe offset site, because this project is being presented internationally as the model biodiveristy offset in the mining sector;

- Sharing information that the companies and their collaborators implementing the offsets usually fail to disclose to communities. Chapter 2 explains what

One of three ferry crossings between Fort Dauphin and the villages of Iabokoho and Antsotso, affected by the Rio Tinto QMM Bemangidy biodiversity offset site.

biodiversity offsets are, so that communities understand the process and can challenge those NGOs who believe they do not have to explain offsetting 'because what the community needs to understand is that it's about conservation and that they need to stop planting there'.

- Raising awareness internationally about the unbearable situation this Rio Tinto QMM biodiversity offset has created for the village of Antsotso, in the hope that the information provided will help their efforts to end a situation that jeopardises villagers' ability to feed their families. Implementation of the Rio Tinto QMM biodiversity offset at Bemangidy is pushing families that rely on subsistence farming into hunger and food insecurity while one of the world's largest mining corporations benefits from increased profits from the mining of ilmenite.

- Strengthening the voice of those who call for an end to the fake solution of offsetting, be it for biodiversity loss, carbon, forest restoration, water pollution, other industrial pollution, "community development capital" or quota for women on the boards of corporations[6].

Chapter overview

"Voices from the villages" are presented in Chapter 1 of this report. These voices provide a snapshot of villagers' experiences at the Bemangidy-Ivohibe biodiversity offset site. Local officials and villagers share their perceptions, impressions and experiences from encounters with proponents of the offset project. They explain how the project prohibits community members from cultivating manioc at the forest edge without providing an alternative option to growing the staple food that feeds them.

Neither Rio Tinto QMM nor the organizations collaborating with the company at this particular site seem to have presented the whole story about the project. They have failed to inform the community that the 'conservation project' in reality is a biodiversity offset which helped Rio Tinto QMM obtain access to ilmenite deposits beneath a unique and rare littoral forest near the city of Fort Dauphin, some 50 kilomenters – three to six hours drive – to the south of the Bemangidy-Ivohibe biodiversity offset. Chapter 2 gives a brief explanation of what biodiversity offsets are, so communities can challenge those NGOs that arrive to lecture them on how important it is to protect forests "for future generations" or "for biodiversity" but withhold crucial information.

Chapters 3 to 5 provide information about the Bemangidy-Ivohibe biodiversity offset project site and its role in Rio Tinto's corporate biodiversity conservation strategy. This is complemented by a short description of the organisations collaborating with Rio Tinto to implement the offset activities at the Bemangidy site.

In Chapter 6, the authors reflect on what they learned from conversations in the communities and from meeting with individuals involved in implementing the biodiversity offset at the Bemangidy site. Chapter 7 provides a brief summary of these reflections.

1. Voices from the villages: "It's unfair"

"We understand the importance of protecting the forest. But they should have started the projects to help us grow food before stopping us from using the forest. Otherwise we are left with no food and this is a problem."

Restrictions imposed with no room for negotiation

Life for most villagers in the coastal region of southeastern Madagascar is tough. The soils along the coast are sandy while the land at the foot of the hills inland, the Tsitongambarika forest massif, is steep and the topsoil is thin. Food production is thus mostly for subsistence, and it is hard work. The staple food in the villages we visited is manioc.

Prior to the arrival of the Rio Tinto QMM biodivesity offset project at Bemangidy-Ivohibe, villagers grew manioc at the edge of the forest. A $15m^2$ patch on the forested hills would provide enough manioc to feed a family of five people for about five days. Farming was mostly in shifting cultivation, and families would rotate their plots every few years as manioc yields dropped, leaving the land to recover. The local expression for recovering fields is 'hindy'. To take them back into production, villagers usually burn the vegetation, which releases nutrients. No chemical fertiliser is used in these rotation farming systems.

One of the restrictions the Bemangidy-Ivohibe biodiversity offset now imposes on communities is that villagers are no longer allowed to plant manioc along the forest edge or use the forest as they did before. The restrictions were presented in what villagers referred to as a 'dina'. A 'dina' is part of the traditional system of regulating customary land use within and among communities.

The process of agreeing a 'dina' involves a negotiation between those using the land, about how a certain area can be used. For this reason, a 'dina' commands a degree of respect that state regulation generally does not. Until recently, a 'dina' was not a written document—it did not need to be. Those to whom it applied had been involved in the negotiation and as part of the process, they committed to respecting

Manioc fields in the sand dunes. The sand dunes are the only place left for villagers from Antsotso to plant their staple food manioc. Cultivation at fields traditionally used near the forest edge was prohibited when the land was designated part of a protected area and biodiversity offset for Rio Tinto QMM.

what had been agreed together. In the past decade or so, however, state authorities and conservation NGOs have begun to use the term 'dina' for documents containing written rules imposed on communities as part of conservation projects.

In conversation, people at the villages reported that a 'dina' had been presented to them around 2003, when the Malagasy government authority transferred management of the northern part of the Tsitongambarika forest (TGK III) to local authorities and the Malagasy conservation NGO Asity[7]. Government and conservation organisations use such 'dinas' in connection with the transfer of forest management in protected areas to local authorities. Those 'dinas' are developed with minimal input from community organisations that are created in the process of such management transfers. Direct community input is limited to refining the rules, the restriction itself is not negotiable.

The written 'dina' applying to the Bemangidy biodiversity offset area divides the forest into three different 'use' zones. In one zone, any use is prohibited (except for scientific research). In a second zone, restoration activities are undertaken and use may be allowed with restrictions in the future. In the third zone, villagers are allowed to use plots previously farmed in shifting cultivation and recuperating 'hindy' plots. However, use in this

zone requires a permit from the local authority that was set up as part of the forest management transfer, the local Communauté de Base (COBA). To obtain such a permit, villagers usually have to be COBA members and they also usually have to pay a fee.

If people are found farming in the forest without such a permit, or in zones where use is prohibited, they have to pay a fine of between 50,000 and 1,000,000 Ariary (around 15-300 euros). To put this into perspective, more than 75 per cent of Malagasy people are living on less than US$ 2 a day and the official minimum wage in Madagascar was 125,000.00 Ariary (35 euros / month) in 2015."If you can't pay the fine, they take you to the Forest Department and then to jail," one villager explained.

Villagers also mentioned a "dina from Asity". This 'dina', villagers explained, prohibits use of fire anywhere on the hillside, even for taking 'hindy' patches back into cultivation. Shortly after our visit in September 2015, a villager burned the vegetation on one of his 'hindy' patches in preparation for planting. Villagers at a meeting discussing the findings of this report explained that he is suffering and needs land to cultivate manioc. He was ordered to pay a fine of 100,000 Ariary for burning in an area where the 'dina' that regulates forest use in the biodiversity offset project area prohibits such use.

Threat to food security

"*We used to cultivate manioc in the forest before this project came. Now we are not allowed anymore to plant in the forest and we have to buy our food and this is a problem because we don't have money. Luckily at the moment there are jobs for some guys of the village with the road construction works[8], so at least some people can work and get some income and have money to buy food. We now cannot grow enough food to feed our families. But we don't kow what we will do when the road work is finished. It will be even harder then!*"
Villager at a community meeting in the village of Antsotso.

This was one of the first descriptions we heard of the Rio Tinto QMM biodiversity offset project at the Bemangidy site. And it was repeated in similar form in many of our conversations with villagers.

Asity is a Malagasy nature conservation NGO and partner of BirdLife International. Villagers recalled the organisation arriving in communities around 2011, and informing villagers that the forest needed to be protected 'for future generations and for the ancestors' and that they would have to stop planting manioc and other food there.

Because they were told they could not plant manioc in the hills any more,

the community started to search for new areas to cultivate. The only place available to them was the sand dunes. The fields are about 3-4 kilometers from the villages in the direction of the ocean, and it takes about an hour to walk there, passing through wetlands, crossing small lagoons, and going around a big lagoon. Villagers explained that during the rainy season (from November to April) getting to and from the fields is treacherous, particularly when carrying food back to the villages.

In addition, the productivity of the sandy soil in the dunes is much lower than in the forest, and growing manioc there is not going very well. The new manioc fields are not producing enough to feed all the families in the villages. Whereas a 15m2 patch on the edge of the forest produced enough to feed a family of five people for about a week, the same size area in the dunes only produces enough to feed five people for about one day, villagers explained. And while the first crop is ready for harvest some six months after planting, the tubers are small and of poor quality.

Villagers have to cross this lagoon to get from the village of Antsotso to their manioc fields in the sand dunes, the only place left for manioc cultivation since the Rio Tinto QMMM biodiversity offset project restricts access to the fields traditionally used at the edge of the forest.

Alternative food production and livelihood alternatives not forthcoming

In terms of food security alone, the Rio Tinto QMM biodiversity offset at Bemangidy is thus turning out to be a disaster: planting manioc in the sand dunes is hard work, far from the villages, on very poor soils not suitable for the manioc varieties available to the communities. It leaves villagers without their staple food for much of the year and families have no regular cash income to buy food.

"*Asity came around 2011, telling us we could not touch the forest anymore. In 2013 they came to start planting trees. They told us that this project is very important because we need more forest for future generations. They told us that they would provide jobs in exchange, and that this project would*

The village of Antsotso, Iabakoho district. Villagers are prohibited from planting manioc at the edge of the forest, which has been dedicated a biodiversity offset site for Rio Tinto QMM.

last for a long time. Then the planting stopped in 2014. Here in the village, only around 20 people got work planting trees at 3,000 Ariary [1 euro] per day, and it was only temporary. They decide day by day. Planting trees is good but it does not give us long-term security. And they said that they are thinking to start some social projects to help us grow food since we cannot use the forest anymore. They were supposed to start but they haven't started yet," a villager explained.

The process for choosing the people to plant the trees was also complicated by the interference of Asity, villagers said: "*"In total, no more than about 30-40 people were involved in the planting, and only from time to time. They always came without much notice. And then they would go and ask the person in charge of the nursery to choose the people from the village who would come along for the planting. They would come one day and say "today we need ten people". He would bring ten people and they would tell him that we were 11 (including him), so they would say 'are you going to pay for the 11th?' Plus, once people had been taking part in the planting, the next time Asity would come, they tell him to bring this or this person again, and this created a problem for him in the village, because the same few people were working every time. Asity doesn't really want to spend money. The right thing to do would have been to involve all the people of the COBA, maybe in turns, but they want to save money and so they create another problem*".

In conversation, villagers explained that initially, there had also been talk about planting eucalyptus trees near

Sign posted at the edge of the Bemangidy biodiversity offset site. That indicates: "Native Tree Plantation in Ivohibe. Cutting the forest is taboo. Starting fires is taboo. No entry."

the village, to provide firewood and timber for housing construction. There had been some experimental planting, but this had been abandoned, and no further planting of trees had taken place. Villagers said that when they asked when the planting near their village would start, they were told that "it is better to plant native trees for your ancestors, not eucalyptus plantations along the road" (see also Chapter 6). But no native trees that could provide wood for local use have been planted along the road either.

Villagers explained that they were under the impression that the project would provide employment and alternative income possibilities for their communities, to compensate for the loss of access to land to plant rice, banana and manioc. In the case of the village of Antsotso that we visited, however, no such alternative employment or income-generating opportunities had materialised by the time of our visit. Yet the restrictions on forest use were already in operation. "*Asity has forbidden us to use the forest because it will be a protected area. If we use it we have to pay a fine, but how can they talk about money with us? We don't have any*," one villager explained.

Another added that, "*no-one can say that they are getting a salary from Asity. It is very little work and only temporary. [In addition to the occasional tree planting,] Asity provides 50,000 Ariary [15 euro] to two people in our village but the 50,000 Ariary is not enough and paying for just two people is also not enough. Our concern is our livelihood and two people for 50,000 Ariary is not enough*."

Customary rights to forest use not respected

In 2011, IUCN and Rio Tinto published a report called "Exploring ecosystem valuation to move towards net positive impact on biodiversity in the mining sector".[9] In the chapter "Distribution of costs and benefits", the report states: "*If local communities are not compensated for loss of access to the forest and provided with alternative sources of income and forest products, the welfare implications of conservation will be negative, poverty will be increased and protection of the forest and its biodiversity may be ineffective*."

This recommendation to compensate local communities for the loss of access does not seem to have been followed in the case of the protected forest that makes up the Bemangidy biodiversity offset—and the consequences are exactly as so eloquently expressed in the IUCN and Rio Tinto report.

"*We have no benefit from the presence of the QMM company here, because the mining is down there and we don't benefit from it. Here we only have a big problem that we cannot plant manioc on the mountain anymore. Some people from the village were involved in planting the trees, and they were paid 3,000 Ariary [1 euro] per day. The cost of buying the manioc we need to feed our families for one day is 6,000 Ariary [2 euros] per day, so you see that this is a problem*," a villager explained during a community meeting in Antsotso.

"We made sure everyone got down the mountain"

A representative from Asity explained why the organisation sees no reason for such compensation: The forest had already been declared a protected area by the government before the biodiversity offset started. Customary rights should have been dealt with when the protected area was set up and, in Asity's view, no-one should have had fields or huts in the forest when the offset project started.

Such an approach is all the more problematic because the same group, Asity, together with Rio Tinto, actively pushed for the forest to be declared a protected area before the north-eastern portion of the forest was also declared a biodiversity offset for Rio Tinto QMM. Did they advocate for fair compensation when the protected area was decreed?

"*It's been a long time that the forest is protected but for us, there is no advantage. The transfer of management for the protected forests was supposed to help us also get some money from the forest uses. People now have to pay entrance fees, cutting fees if they need some wood for house construction. But what are the arrangements now between QMM, the forest department and Asity? We don't know. What we know is that we have never seen any benefit from the protection. If there are any, we have not seen them. Instead, everything is now forbidden*," a villager said.

During a visit to a restoration site inside the Bemangidy-Ivohibe biodiversity offset, villagers explained that many land use issues and the question about customary use rights remained unresolved:

"*It's true that this land is not titled but there are trees and it's been used since our ancestors' time. So, even if it's State land, if it is being used by someone they should have asked permission from that person, and they didn't. We don't mind planting trees, we have nothing against it and we do think it's important, but our main concern is our livelihood*."

At a village meeting, we heard that one villager has customary rights to the land where Asity had started the restoration planting. He had been using the land for the cultivation of banana, rice and manioc, and when that was no longer allowed, he planted gmelina seedlings, for future construction or fire wood. The trees had already been planted when Asity and Rio Tinto QMM chose the hillside—including his plot with the gmelina seedlings— for restoration planting with native species, as part of the biodiverstity offset. Because the villager's use of the land was visible through the planted gmelina seedlings, he should have received compensation for loss of traditional use rights and the NGO or company should have come to negotiate with him. "*He got not even 1 Ariary.*" The villagers also explained how the person has been reminding Asity staff each time he meets them, but that he still has not received any compensation and cannot use the trees he planted in what has since become the Rio Tinto QMM Bemangidy biodiversity offset site.

In addition to failing to compensate for customary use of the land, the project is also relying on unpaid work from villagers. One of the surprising sights at the restoration site we visited was the high number of seedlings that were growing well. In conversation with villagers, we found out why so many seedlings were surviving: People had been asked to water the trees regularly and were doing so. But since 2014, not even the person in charge of the tree nursery has been paid for the work put into watering the trees.

This unpaid time and effort shows that the community has a strong interest in the forest restoration work. But the way in which the restoration and restriction of traditional uses of the forest have been imposed leaves the community in a dreadful situation, as villagers at a community meeting attended by some 60 adults explained:

"*We are really suffering now because we had to stop cultivating there. We moved our cultivation into the dunes, but it's so sandy there that growing anything is difficult. Plus they took our land and did not even compensate us. They said they would, but they never did. They provided micro-credit projects to maybe 10 people, with 60,000 Ariary [18 euros] each, but this is nothing to make a sustainable project*."

"*We think that protecting the forest is really good, but they should have worried first about our survival, they should have taught us how to cultivate somewhere else. Since Asity came here, our life has become much worse than before. Our standard of living is decreasing ever more. It's true that we should think about the future. But how can we think about the future if we have nothing to eat today? If we cannot even feed ourselves? We know that it's necessary to protect the forest because we've got nothing but the forest. And they took that from us.*"

2. What are biodiversity offsets?

"Offset means compensation. The basic principle behind it is that a mining company that destroys 4000 ha of forest for its mining activities will have to protect 4000 ha elsewhere, and the forest for the compensation should be as similar as possible regarding endemic species as the forest destroyed"[10]

Biodiversity offsets – some basics

Corporations involved in extractive industries, industrial agriculture and construction of large-scale infrastructure, the World Bank, international conservation NGOs and a growing number of governments are increasingly employing a strategy known as 'biodiversity offsetting'. They claim that this will help protect biological diversity because for every hectare of forest, grassland or wetland that is destroyed through their operations, another hectare of forest or grassland or wetland will be protected or restored elsewhere.

The result, proponents of biodiversity offsetting claim, is that on balance, no biodiversity is lost (that there is 'zero net loss'). What is destroyed in one place is restored or conserved in another location. But not just in any other location. For the project to function as a biodiversity 'offset', the biodiversity at the offset location must be shown to have been at risk of being lost without the intervention of the 'offset' project. However, this is only one explanation of what biodiversity 'offsets' are.

Another explanation is that biodiversity 'offsets' are part of a trend towards business-oriented conservation policies leading to significant changes in the way environmental policies and laws are designed. These changes make it easier for companies to continue to pollute or destroy biodiversity, because they can supposedly 'make up for it' elsewhere.

This prospect to continue business-as-usual while claiming that no damage is done because destruction of biodiversity in one place will be compensated by restoring a location elsewhere has made the idea of 'offsetting' very popular with mining companies. It helps them to get mining permits that governments might

Offsetting and **climate change**

The idea of 'offsetting' or compensating for damage done elsewhere achieved international recognition when carbon offsetting became part of the Kyoto Protocol, a United Nations treaty that limits the release of greenhouse gases in industrialized countries.

Giving companies operating in a country where greenhouse gas emissions are limited the possibility to 'offset' or compensate emissions means providing an opportunity for these companies to legally release more carbon dioxide than the limit would otherwise allow – and still claim to have stayed within the legal limit.

Essentially, companies that have used up all their pollution quota can buy additional permissions to release greenhouse gases into the atmosphere from other companies that have polluted less than their permitted limit. In some cases, a company that wants to pollute more than its quota can also buy carbon credits from projects that claim to have prevented the release of carbon dioxide into the atmosphere. These projects are called 'offset' projects. For each tonne of carbon dioxide that has been saved through the 'offset' project, the project owner receives a 'carbon credit'. The owner of the 'offset' project can sell the carbon credit to a company that wants to release more than its legal quota of greenhouse gases. The buyer of the credit is allowed to release the extra tonne of carbon dioxide and pretend releasing more carbon dioxide than the limit allows has no negative impact on the climate. They can make this claim because the extra company emission - although above the legal limit - has been 'offset' or compensated by some 'offset' project saving a tonne of carbon dioxide that without the 'offset' project would have been released into the atmosphere.
This is the basic idea behind offsetting. However, there are many problems with this concept.

For example, the owners of a carbon 'offset' project need to prove that the carbon dioxide would have been released into the atmosphere if they had not taken action. In the technical discussions about 'offsetting', this is called 'additionality' of the emission reduction. The problem is that proving such 'additionality' is a hypothetical excericse. It involves describing what *would have happened* in a future without the 'offset' project. But the 'offset' project did happen, so the future without the 'offset' is hypothetical, and therefore very easy to manipulate.

And because the volume of 'offset' credits that a project can sell is calculated by comparing the actual greenhouse gas emissions of the 'offset' project with those that would have been released had the 'offset' project not happened, the higher the emissions in the hypothetical calculation, the more savings can be shown in the actual 'offset' project – and thus, the more carbon credits can be sold by the project.[11] This has been shown to create a perverse incentive for project owners to claim that emissions would have been particularly high in the hypothetical future.

The 'product' that is traded in a carbon market is also very different from products sold in other markets. Trading offset credits means trading an electronic tracking number linked to an auditor's assurance that something has not happened – that a tonne of carbon dioxide has not been released into the atmosphere: no actual physical product has ever to be delivered. The 'product' being marketed is the absence of an emission. This makes the carbon market a prime target for fraudsters[12].

otherwise find difficult to grant — because the mining is going to destroy, say, a rare forest or grassland or wetland, maybe in a protected area. Or the land might be part of an indigenous peoples' territory or it might be used by traditional communities who risk losing the land they depend on. If the company can argue that the biodiversity they will destroy in this particular place will be restored and protected elsewhere, it is much easier for them to convince the government and/or public that they should be allowed to proceed.

Biodiversity offset plans are also increasingly required to get planning permission and loans. For example, if a company applies for a loan from the World Bank's International Finance Corporation (IFC), for mining in a location that the IFC considers important for biodiversity, it has to present a biodiversity offset plan. This plan has to show how the company will compensate for the biodiversity that will be lost, before the mining project can qualify for the loan.[13]

For governments, the appeal is also obvious. In the short-term, biodiversity offsets offer a way out of a dilemma they face. Offsets—which are being proposed as compensation for the loss of carbon and clean water as well as biodiversity or forests —allow governments to be seen to be putting a limit on pollution or destruction in reponse to public demand. At the same time, offsets allow them to grant companies the right to ignore those same limits anywhere they want to mine or otherwise destroy and pollute, even if this goes beyond the limit set by law. The only thing the companies need to do is acquire a biodiversity (or forest restoration or clean water or carbon) offset credit that shows they have paid for a forest or wetland or grassland to be restored or protected elsewhere. Currently, over 25 countries are said to have or be in the process of elaborating legislation that includes offsets of one form or another.[14]

Falsely blaming communities for biodiversity loss

For a biodiversity offset project to proceed, the project owner has to demonstrate how the project will protect or improve biodiversity that otherwise would have been at risk of being destroyed. What will the biodiversity offset project do so that the eventual outcome for biodiversity will be better than it would have been without the project? For example, will it stop a forest from being felled? Will it restore so-called 'degraded forest' that would otherwise have been neglected?

To qualify as an 'offset' project, it is crucial for the project owner to demonstrate that without the project activity, biodiversity would have been at risk of being destroyed. It is this claim that the project 'saves' biodiversity

which otherwise would have been lost that generates the biodiversity credit. This claim in turn allows a mining company buying the offset credit to destroy biodiversity elsewhere – and say that *on balance,* no biodiversity has been lost.

In this story of what would have happened without the 'offset' project, communities' land use practises are almost always unfairly blamed. Usually, the biodiversity (or carbon) offset story goes something like this: 'Tavy or shifting cultivation practises or cutting of trees by local communities would have destroyed this forest during the next x years, but the offset project can save it.' Then the owners of the offset project will explain, in reports prepared as part of the offset project, how they will stop tavy or traditional agricultural practises or the extraction of wood for local use, or how they will restore land that was 'degraded' through local use.

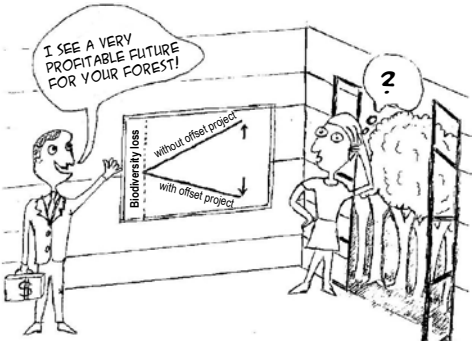
This blame-the-community approach is not just incidental: it is a fundamental part of a biodiversity offset project. After all, if the forest would have been conserved without additional action, there is no basis for the project to claim that it is saving biodiversity that was at risk of being destroyed. That is why offset projects almost always say that local villagers would have destroyed the forest and that the offset project will prevent this destruction. The offset project then calculates how much biodiversity has been saved and auditing companies verify that, based on the information provided, the project has saved x hectares of habitat important for biodiversity (or carbon or clean water or restored forest). They then issue 'offset credits' that the

project owner can sell, e.g. to mining companies. The mining companies can then use the biodiversity offset credit as proof of compensation for biodiversity destroyed at a mining site.

Most offset projecs therefore actually change – and usually, restrict - local access and use of the land. They have to, because they have to show that there are changes to the way the land is being used, and that these have only come about because of the offset project. In most cases these changes translate into access restrictions for local communities while large-scale destruction by corporate activities continues unhindered.

A number of offset projects that generate 'forest carbon' or "REDD"[15] credits have already been shown to have evicted local populations or restrict forests access for peasants or indigenous peoples.[16]

It's also worth remembering that a company does not buy the biodiversity (or clean water or carbon or a restored forest) itself, it only buys a paper or electronic tracking number that qualifies as a placeholder for the biodiversity (or carbon or clean water or restored forest) saved at the 'offset site'. The company then shows this tracking number to the government authorities or financing agencies like the World Bank's IFC as proof that it has compensated for biodiversity destruction.



As this short exploration of the basics of offsetting shows, biodiversity offsets are being used to condone the continued, large-scale destruction caused by mining and other large-scale industrial activities that destroy biodiversity. Biodiversity offsets are also almost always a double landgrab because a corporation will take away land from communities not only for the mine or the plantation or infrastructure development, but also for the area they plan to use for the biodiversity offset project.

3. The Rio Tinto QMM biodiversity offset project

Rio Tinto is a British-Australian mining corporation with headquarters in London, UK.

It is involved in the mining of iron ore, copper, bauxite, uranium, coal, and diamonds on six continents, and conflicts associated with Rio Tinto mining operations are many. For example, the Bingham Canyon mine in Utah, USA, is the single largest open pit mining operation and the deepest excavation of its kind in the world. Worldwide, no other mining operation this large is so close to a population of 1.8 million people. At its Eagle Mine site in Michigan, USA, Rio Tinto is accused of violating Indigenous treaty rights, and mining has raised concerns about local water quality, the potential for irreversible acid mine drainage, ecosystem degradation and the technical risk of mine collapse.[17]

Rio Tinto Group owns gross assets valued at USD 81 billion through a complex web of subsidiaries, and had reported net earnings of USD 3.7 billion on sales of USD 54.6 billion in 2013 (Source: http://londonminingnetwork.org/rio-tinto/). Their corporate sales were thus almost six times the GDP of Madagascar that year.

Like other mining companies, Rio Tinto is showing great interest in biodiversity offsets, for the reasons explained above. In 2004, at the Third IUCN World Conservation Congress in Bangkok, the Rio Tinto Group launched its biodiversity conservation strategy, committing to achieve a 'Net Positive Impact' on biodiversity through its operations worldwide.[18]

Rio Tinto QMM's ilmenite mine at Fort Dauphin, Madagascar

In southeastern Madagascar, Rio Tinto is involved in the mining of ilmenite. The ilmenite mine in Fort Dauphin is operated by Rio Tinto QMM (QIT Madagascar Minerals). The Malagasy government holds 20 per cent of the company, and Rio Tinto the remaining 80 per cent.

Rio Tinto began exploration for ilmenite mining in southeastern Madagascar in the 1980s. QMM was legally established in 2005, when the Malagasy government agreed

Rio Tinto and **biodiversity offsets:** initiatives at a glance

Rio Tinto announced its biodiversity conservation strategy at the Third IUCN World Conservation Congress in Bangkok, in 2004.
The strategy includes the use of biodiversity offsets to compensate for ecological impacts from mining at numerous Rio Tinto mining sites. Brochures by Rio Tinto and its partners cite pilot biodiversity offset initiatives at the mining company's Simandou mine in Guinea, Oyu Tolgoi in Mongolia, QMM in Madagascar, Rössing in Namibia, Palabora in South Africa, and operations in Australia. For their preparation and implementation, Rio Tinto is engaging a wide range of partner organisations and experts from the consultancy, biodiversity conservation and social development sectors. Apart from the offset initiatives at the Oyu Tolgoi and Fort Dauphin mines, no information is available regarding the actual status of the biodiversity offset initiatives.

Rio Tinto in Mongolia

The Oyu Tolgoi open pit and underground copper mining project is the largest mining investment ever licensed in Mongolia. 66 per cent of the mining joint venture set up to run Oyu Tolgoi is controlled by Rio Tinto. Project costs are about USD 10 billion and the mine is expected to account for about 30 per cent of Mongolia's GDP.

The Environmental Impact Assessement (EIA) and related biodiversity management plan, which was developed with guidance from The Biodiversity Consultancy, Cambridge, refers to a biodiversity offset. The EIA was approved in 2013 by the Mongolian environment ministry, following modification of environmental legislation, on the advice of the World Bank. One crucial aspect of the modification was the introduction of biodiversity offsetting. Project sponsors developed a biodiversity offset plan that includes two specific measures: a monitoring plan concerning a number of endagered species in the project area—namely Khulan, black tail gazzella, and a few bird species—and an anti-poaching plan.

An international civil society field investigation in April 2015 found that the actual biodiversity offset project is still under preparation and far from being operational. Production at the mine is already underway, however, having started in January 2013. Furthermore, the offset project will not alleviate the impact on pastoralist communities of the mine using enormous quantities of water in a desert region, or social impacts caused by the mine, even if it eventually becomes operational. The company has failed to demonstrate how it will prevent the excessive use

of water for production at the mine and infrastructure related to the project from jeopardizing pastoralist communities' access to water.

Rio Tinto in Guinea

The Rio Tinto Iron Ore Simandou mine is located in the Republic of Guinea. The project includes the mine itself, the new Trans-Guinean railway and a deep-sea port at Moribaya. The deep-sea port will be the first in Guinea to provide access to large cargo ships able to transport the iron ore. Current partners in the mine's operating company, Simfer S.A., are the Government of Guinea (7.5%), Rio Tinto (46.57%), Aluminium Corporation of China (Chinalco, 41.3%) and the International Finance Corporation (IFC, 4.625%), with Rio Tinto leading the project.

Rio Tinto mentions collaborating with Fauna & Flora International (FFI) in Guinea to develop site-specific recommendations to avoid, minimise, rehabilitate and offset environmental impacts at Simandou but does not mention specifics about the status of offset project implementation.[19] In 2009, during the pre-feasibility stage of the mining project, The Biodiversity Consultancy, Cambridge, identified a high biodiversity risk when assessing the mine's impact on 'critical habitat'. The Simandou Project's Social and Environmental Impact Assessment highlights Rio Tinto's own Biodiversity Conservation Strategy and Net Positive Impact policies. Many in the mining and conservation sector consider the Simandou Project's Social and Environmental Impact Assessment as an example of best-practice without providing information regarding the actual status of any concrete offset activites.

Rio Tinto in Namibia

The Rössing Uranium Mine is one of the largest and longest-running open pit uranium mines in the world. It is located in the Namib Desert, 65 kilometres from Swakopmund near the town of Arandis. Discovered in 1928, it started operations in 1976 as Namibia's first uranium mine and in 2014, produced 1,543 tonnes of uranium oxide, providing 2.3 per cent of the world's uranium.

In Namibia, Rio Tinto is working in partnership with Fauna & Flora International (FFI) and its geographic information system (GIS) experts who are investigating possibilities for "offsetting environmental damage" and for carrying out "biodiversity action plans". As with the plans cited for the mine at Simandou, brochures citing Rio Tinto's engagement with biodiversity offsetting provide no further information about the status of implementation of the biodiversity offset plans alluded to for the Rössing mine.

to contribute USD 35 million to the development of infrastructure for the ilmenite mine operation. This funding came from a World Bank 'Integrated Growth Poles Project for Madagascar' aimed at strengthening finance, export capacity and private sector development in the country.[20]

The mining concession covers some 6,000 hectares. Ilmenite deposits will be mined at three locations—Mandena, Sainte Luce and Petriky—within the larger concession area. At peak capacity, its owners say, the mine could produce up to 2 million tonnes of ilmenite ore a year, worth roughly USD 100 a tonne in year. The ore is being processed in Canada, and sold for some USD 2,000 a tonne as titanium dioxide, a pigment used in white paint, tennis court lines, sunscreen, and toothpaste among others. At 2009 levels of demand, the Fort Dauphin mine will provide 9 per cent of the world supply over the next 40 years[21].

Rio Tinto QMM's biodiversity offset project

Rio Tinto chose the ilmenite mine in Fort Dauphin as a pilot site for its 'Net Positive Impact' strategy. One reason for choosing a site in Madagascar was because there are many 'endemic' species (species which are found nowhere else in the world). This makes Madagascar a biodiversity 'hotspot' of great interest internationally.

A further reason included the risks and opportunities that conservation NGOs had identified with respect to biodiversity. Rio Tinto could expect to benefit from presenting respected conservation groups as partners in its efforts to counter the active campaign by NGOs such as Friends of the Earth and Panos against the ilmenite mine at Fort Dauphin.[22]

By selecting this site, Rio Tinto could be assured of considerable public attention for its seemingly 'green' response to the NGOs' campaign.

Rio Tinto also highlights the company's involvement in advocating for a forest complex nearby becoming protected by State Decree. It is rare for a mining company to present itself as such a champion for protected areas. In this case, however, doing so allows the company to claim that without its intervention, the forest would not have been protected. Then, when part of the area was proposed as a biodiversity offset site for the QMM ilmenite mine, Rio Tinto could claim that without the company's intervention in favour of designation of the forest as a protected area, biodiversity at what was to become the Bemangidy biodiversity offset site would have been destroyed!

Since its arrival in Madagascar, Rio Tinto had also been preparing the ground for diverting attention away from its role in the destruction of

unique coastal forest. In one document, for example, Rio Tinto insists that, "*deforestation, for slash-and-burn farming or 'tavy' and making charcoal, is the biggest factor in massive destruction of natural habitats*."[23] Descriptions such as these presented the local population's land use as the main threat to the survival of the rare littoral forest located inside the Rio Tinto QMM ilmenite mining concession.

"*Madagascar is among the richest countries in the world in terms of biodiversity, where poverty, however, leaves no alternative for communities than turning to natural resources to survive. This high pressure causes massive destruction of natural habitats and includes Madagascar in the red zone (hotspot) for risk on biodiversity*", Rio Tinto write in another brochure.[24]

This is a tactic that has been described in academic literature: diverting attention from a corporation's own environmental destructiveness and focusing instead on local communities—who have been relying on the forest for decades—as the ecologically destructive 'Other'.[25]

It is also why local communities at a biodiversity offset site 50 km away from the mine are being prevented from using the forests. These restrictions are not incidental to the offset project, or a small part of it. Rather, they are at the heart of the logic underpinning the concept of a biodiversity offset.

Map of the implementation sites of Rio Tinto Biodiversity Action Plan in Madagascar.

Rio Tinto QMM is arguing that local communities were going to destroy the forest at the mining site by 2040, and that the company's actions will now save it through its biodiversity conservation and restoration activities inside the mining concession. In addition, Rio Tinto QMM will engage in biodiversity offset measures outside its mining concession, protecting and restoring forest the company claims would also have been destroyed by local community use without the company's

Rio Tinto QMM's biodiversity offset: terminology

This box provides an overview of the language used by Rio Tinto to describe the different components of its biodiversity conservation strategy, and of organisations involved in the biodiversity offset project(s).

Internationally, Rio Tinto presents its "Net Positive Impact" (NPI) strategy as an integrated system that has several action categories:

"*At Rio Tinto we believe that to obtain a Net Positive Impact we must reduce our impact on biodiversity, through Avoidance, Minimization, Rehabilitation, Offset and Additional Conservation Actions. We describe collectively this set of actions as "hierarchy of mitigation". We put the maximum possible effort to obtain a NPI applying biodiversity offsetting and additional conservation measures.*"[26]

The strategy refers to "on-site measures" – these are activities that take place inside the Rio Tinto QMM mining concession, and that are managed by Rio Tinto QMM. The term "off-site" is used for activities that are undertaken outside the mining concession area. This includes biodiversity offsets at three different sites, but also corporate social responsibility activities in villages in the area around the mine. The latter are not considered in this report.

The implementation of the biodiversity offset projects has been outsourced to different conservation NGOs, including Asity (Bemangidy) and Missouri Botanical Gardens (Mahabo).

On-site conservation measures:

- "Avoidance" means that some of the littoral forest fragments inside the mining concession will not be destroyed by dredging. However, these are likely to be mainly areas where the ilmenite deposit is small or hard to get at. According to Rio Tinto QMM brochures, avoidance zones at the three locations where ilmenite will be extracted (Mandena, Petriky and Sainte Luce) add up to 624 hectares.

- According to Rio Tinto, "'minimization' reduces the severity of impacts on biodiversity that results from mining (...) already under way. These actions reduce the likelihood or magnitude of biodiversity impacts, but cannot completely prevent them (...)." Examples of such measures are sensitising and educating truck drivers so that they comply with speed limits to reduce accidents.

- Rio Tinto material describes "rehabilitation" as involving the preparation of safe and stable landforms on sites that have been disturbed by the mining

Aerial view of the Rio Tinto QMM ilmenite mine at Fort Dauphin, south-eastern Madagascar.

activities, followed by re-vegetation (…). "Restoration" is the term used when the original habitat type is recreated. In practice, rehabilitation consists of planting exotic species (mainly eucalyptus, acacia, casuaria and gmelina) on the areas that have been dredged and where the rare coastal forest has been destroyed to extract ilmenite; the argument for using exotic species is to reduce the risk of erosion by establishing ground cover more quickly. Native species will be used to restore supposedly degraded areas of forest inside the concession, in those parts that will not be mined. Some 44 different local native species are being planted, with seeds collected from the topsoil that has been dredged.

Off-site measures:

- "Additional conservation actions" include a "broad range of activities that are intended to benefit biodiversity, where the effects or outcomes can be difficult to quantify. (…) for example: helping to build capacity in conservation organisations to enable better biodiversity conservation outcomes on projects they are involved with. (…)"

- The most prominent "off-site" measure is biodiversity offsetting. Rio Tinto writes that, " biodiversity offsets are conservation actions designed to compensate for the unavoidable impacts on biodiversity caused by mining and refining. Offsets should never be employed in the place of appropriate on-site avoidance and minimisation measures, but rather seek to address any residual gap." Forests at three locations provide biodiversity offsets for the Fort Dauphin ilmenite mine. These are the Bemandigy, Mahabo and Sainte Luce biodiversity offset sites.

offset project. The sum of these conservation activities, Rio Tinto and partners claim, will result in an overall "net positive impact" on biodiversity.

Thus the company makes the leap to proposing that the mining project in Fort Dauphin will protect Madagascar's biodiversity, so it should be welcomed with open arms. A 2009 Rio Tinto QMM press kit audaciously claims that its operation is "*a mine at the rescue of the unique biodiversity of the littoral zone of Fort Dauphin*"![27] The fact that some 1,650 hectares—6.5% of this unique coastal forest in Madagascar—is located within the boundaries of the mining concession that QMM is exploiting for ilmenite, is actually presented by the company's literature as a blessing.

Conservation NGOs working with Rio Tinto on the biodiversity offset projects for the ilmenite mine have accepted this argument. Forests at three biodiversity offset sites, Bemandigy, Mahabo and Sainte Luce, now serve as biodiversity offset for Rio Tinto QMM, allowing the company to proceed with the destruction of rare coastal forests with endemic species at its 6,000-hectare ilmenite mining concession at Fort Dauphin - and still say that its mining will have a "Net Positive Impact" on biodiversity.

This approach is generating excellent public relations benefits for Rio Tinto, as well as allowing it access to 40 years worth of ilmenite deposits that provide the key ingredient for industrial white paint.

Obtaining a complete and precise understanding of the Rio Tinto QMM biodiversity offset activities (size, localisation, quantification etc..) was not an easy task, and uncertainties remain. We found a general reluctance on the part of Rio Tinto staff to share details about the biodiversity offset projects linked with QMM mining operations.

Furthermore, information from different company reports and a visit at the Rio Tinto QMM Mandena Ecological Research Centre and forest conservation site proved contradictory. It appears, however, that at present, there are three biodiversity offset sites: Mahabo (1200 ha), Sainte Luce (475 ha), and Bemangidy (size not clear, see below). These three sites are said to provide a total of 6,000 hectares for biodiversity offsetting, which should be about the same size as the mining concession.

The offset sites at Sainte Luce and Mahabo are considered 'like-for-like' offsets because both sites are located in the same forest type as the forest that is being destroyed at the mining site: it's a littoral forest unique to Madagascar. Most remaining forest of this type has been fragmented or degraded.

Forest restoration site at the edge of the forest which is part of the Rio Tinto Bemangidy biodiversity offset and Tsitongambarika protected area.

- Mahabo is located about 201 km north of Fort Dauphin. The site was titled as a Protected Area in 2014. The 1,200 hectare site is managed by Missouri Botanical Gardens, in coordination with the local NGO Soazagnahary, the local Fokontany and Mahabo-Mananivo municipality. Anecdotal reports suggest that the offset project is experiencing financial difficulties, with Rio Tinto QMM said to have cut their contribution since 2013/2014.

- Sainte Luce is located about 30 km north of Fort Dauphin, to the east of the village of Mahatalaki, at the northern edge of the QMM mining concession. Confusingly, there are both on-site avoidance zones (inside the mining concession) and biodiversity offset activities at Ste Luce. According to Rio Tinto, the total size of the Sainte Luce biodiversity offset site (outside the mining concession) is 475 hectares, divided into four locations. There is no village inside the offset locations at Sainte Luce but several villages are located very close by, including the villages of Mahatalaki and Sainte Luce. Villagers from both of these communities use forests at at least one of the four Sainte Luce biodiversity offset locations.

- Bemangidy (also called Bemangidy-Ivohibe) is the third biodiversity offset site and it is the subject of this report. WRM and Re:Common decided to make this site the focus of the September 2015 field investigation because of the scarcity of information about it. The Bemangidy offset site is located about 50 km north of Fort Dauphin, along the national route. Several Rio Tinto documents forecasting "Net Positive Impact" describe the Bemangidy offset location as a "back-up", in case offset activities prove not to be effective at other sites.[28] When a conservation zone in Ambatotsirongorongo, co-managed by Wildlife Conservation Society, was taken off the initial list of possible biodiversity offset sites, the Bemangidy offset site became an integral part of the Rio Tinto biodiversity offset strategy.[29]

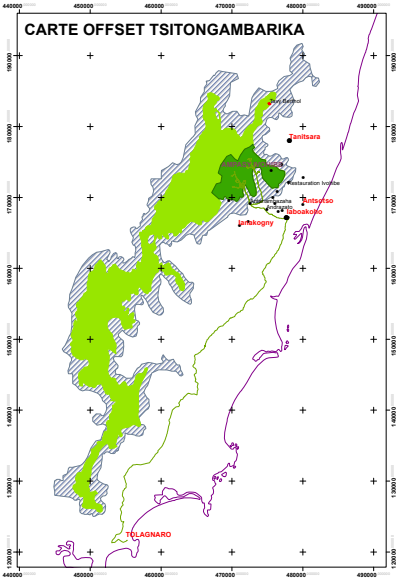
4. The Bemangidy biodiversity offset site

Bemangidy is actually the name of a tiny village located about 50 km north of Fort Dauphin, reachable in a three to six hour drive[30] on the national route towards Farafangana.

The official name of the Rio Tinto QMM biodiversity offset project in the Bemangidy area is 'Ampasy Vohibe', or 'Bemangidy-Ivohive'. The site is located in the northeastern portion of the Tsitongambarika Forest Complex (TGK). However, people still refer to the forest (and thus, to the offset site) just as Bemangidy, the name of the village and surrounding forest. Until some 20 years ago, this was the site of a timber processing plant owned by a Swiss company. According to local information, the company highgraded the forest, exhausting many of the valuable timber species – a fact that is absent from company and NGO brochures on the land use of the area. These brochures, instead, focus on presenting local land use for subsistence food production as the sole driver of deforestation and forest degradation.

The Tsitongambarika Forest is a Protected Area of about 60,000 ha which was granted permanent protection status in June 2015.[31] The protected area was initially created in 2008 by the Malagasy Ministry of Water and Forests, with technical and financial support in the preparatory phase from BirdLife International and its Malagasy affiliate Asity Madagascar, Rio Tinto, USAID, and Conservation International.[32] A BirdLife brochure on conservation payment initiatives in Madagascar notes that, "*in particular, the forest protects the catchments of the main water sources for Fort Dauphin town (the main settlement in the region), and the QMM ilmenite mining operation, located in the coastal plain below Tsitongambarika forest*."[33]

Documents about the related biodiversity offset project contain imprecise and even contradictory information about Rio Tinto QMM's contribution to conservation of the TGK forest complex, often overestimating the conservation area that is directly related to Rio Tinto QMM activities and being financially supported by Rio Tinto.



Tsitongambarika biodiversity offset site. Map courtesy of Asity Madagascar.

For example, conservation maps and documents divide the Tsitongambarika Forest Complex into three areas (TGK 1 – 15,000 ha, TGK 2 – 25,000 ha, TGK 3 – 25,000 ha). In Rio Tinto's literature, the entire 60,000 ha New Protected Area is often presented as if it was part of the Rio Tinto QMM conservation efforts; and in some cases it is stated that the offset project refers to 30,000 ha in TGK 3 (although this is more than the actual size of TGK 3). On the other hand, in documents by BirdLife International and other NGOs, the size of the Rio Tinto QMM offset site is given as about 1,000 ha, and sometimes as 10,000 ha.[34]

The fact that the area is already protected by a State Decree raises an important question: How can an area be used as an offset for a private company if it is already protected by a State Decree? We asked staff at the Rio Tinto Mandena Ecological Research Centre in Fort Dauphin and at Asity, but we could not get a clear answer.

That the Bemangidy site is not a 'like-for-like' offset is also important because not all species and habitat that will be destroyed at the mining site are also found at this offset site. The forests at Tsitongambarika are lowland inland rainforest, whereas the Rio Tinto QMM mine in Fort Dauphin is destroying coastal forest.

The company has tapped into the knowledge acquired by universities and botanical collections that did extensive surveys in the TGK complex during past decades to identify a site with largest possible overlap of flora and fauna to the littoral forest at the mining site.

Asity staff confirmed that several biological inventories have been conducted, and it has been established that there is an overlap between the two sites in terms of species composition. But even so, several species that are threatened by the ilmenite mine are not found at the "out-of-kind" offset site at Bemangidy. Surprisingly, Rio Tinto defends this use of "out-of-kind" offset with the claim that "it is becoming recognised that "out-of-kind"offsets may result in greater conservation benefits."[35] No information is provided about who actually endorses such claims or why this practise would

"result in greater conservation benefits".

The Bemangidy offset site is located inside the larger conservation area that includes the entire forest of Tsitongambarika. This larger protected area is jointly managed by Asity and KOMFITA, the "Comité de gestion de l'aire protégée de Tsitongambarika". The entire TGK Protected Area includes more than 60 Communautés de Base (COBA), with the following four COBAs also involved in the Bemangidy-Ivohibe biodiversity offset: Ianakogny, Iabakoho, Antsotso, and Tanitsara.

A Communauté de Base is a local administrative entity. Such COBAs have been set up across Madagascar in areas where management for protected areas has been transferred to the local level (see Chapter 1). Various official and conservation NGO publications describe a COBA as a group of volunteers united by setting up of a COBA.

According to Asity, each COBA that is part of the biodiversity offset project is provided with an annual budget specifically related to the biodiversity offset. The main objective of the offset project is given as 'biodiversity conservation', but it does include community development as an additional objective.

The biodiversity offset also involves the restoration of degraded forest. At the Bemangidy site about 2,050 seedlings of native trees species were planted in one location in 2013; and another 2,000 in another location, near the edge of the forest, in 2014. At the time of our visit in September 2015, no planting had been done for 2015. At the village of Antsotso, tree planting, some small micro-credits and regular payment for two people has been the only economic support the village has received since losing access to their fields at the edge of the forest as a result of the biodiversity offset project.

At the beginning, people were receiving 2,000 Ariary [less than 1 euro] per day to plant five seedlings a day per person. After strong protests due to the low pay, the daily rate was increased to 3,000 Ariary [1 euro], for the planting of the seedlings (by the men). Preparation of the roofs to provide shade for the newly planted seedlings was mainly done by women.

In conversations, people mentioned that at the Iabokoho site, some 10 kilometers away from the villages we visited, experimental trials for rice cultivation and tree plantations had been started. However, it was reported that no such activities had been offered to the villagers at Antsotso and neighbouring villages that are affected by the Bemangidy offset site.

5. Conservation groups linked to the Bemangidy biodiversity offset

Any transnational mining company seeking to continue destructive mining operations in unique coastal forest in a country with many species found nowhere else on the planet is going to find it difficult to convince others that it will really conserve biodiversity.

Proposing to implement a biodiversity offset plan in such a context certainly helps a company to earn green credentials even though its mining will continue to destroy biodiversity. But such engagement alone is unlikely to be convincing without external validation. In the case of the Bemangidy biodiversity offset project this external validation comes in the form of partnerships with two leading international conservation NGOs and the setting up of a Biodiversity Committee.[36]

In 2001, Rio Tinto and one of the world's most well-known nature conservation groups, BirdLife International, established a partnership at the global level. Through this partnership, BirdLife started assisting Rio Tinto in the development and implementation of its biodiversity conservation strategy and its goal of having a "Net Positive Impact" on biodiversity at selected mining sites. Rio Tinto launched the strategy in 2004, and chose the QMM ilmenite project as "a pilot site for testing NPI tools."[37,38]

Rio Tinto QMM also set up a high-profile Biodiversity Committee[39] in 2003, to advise on how best to conserve and enhance biodiversity within the ilmenite mining and biodiversity offset areas, before, during and after mining. The Committee includes technical advisors from academia and research organisation, as well as from strategic partners, mostly large conservation organisations.

In addition, Rio Tinto began to collaborate with the International Union for Conservation of Nature (IUCN) in 2010. Because IUCN—which brings together conservation NGOs and governments—is perceived as a leading authority in the field

Manioca fields on the sand dunes near Bemangidy. While a 15 m² on the edge of the forest produced enough to feed a family of 5 for a week, the same area in the dunes produces enough only for one day.

of environment and sustainable development, this advanced Rio Tinto's goal of presenting itself as a champion of biodiversity conservation,[40] especially in the mining sector.

Designing the "Net Positive Impact" strategy for the Rio Tinto QMM ilmenite mine also required access to in-depth research to obtain crucial biological and socio-economic information about potential offset sites within the Anosy region of Madagascar. Such detailed inventory information is necessary to compare the biodiversity found around the mine and the biodiversity at potential offset sites. Is it the same or not?

A well-equipped team of Malagasy and international scientists from Missouri Botanical Garden (MBG), Rio Tinto QMM, and the Malagasy NGOs Asity Madagascar and Madagasikara Voakajy, among others, had been visiting the 'Tsitongambarika Forest Complex' (see Chapter 4) extensively to conduct a series of biodiversity surveys. These were coordinated by BirdLife International, and funded in part through the BirdLife partnership with Rio Tinto. Botanical inventory activities were also carried out in technical collaboration with MBG, Rio Tinto QMM and BirdLife International, with an inventory prepared using the standard protocol for botanical sampling developed and adopted by MBG.[41] It seems that institutions like MBG are looking to biodiversitiy offsetting as a possibility to generate a revenue stream from their immense botanical collections and species databases. Re-using their existing collections, they lend scientific credibility to the biodiversity offset approach. MBG is a leading botanical scientic authority and its 'stamp of approval' is just as important as its specialised inventories, legitimising Rio Tinto's biodiversity

conservation measures, and ultimately, the ilmenite mine.[42]

Based on these extensive inventories, the Tsitongambarika forest was identified as a perfect biodiversity offset spot for the ilmenite mine because of its high biodiversity value and because it provides 'ecosystem goods and services' (eg water regulation) for the surrounding population.

Current management of the Bemangidy-Ivohibe biodiversity offset is the responsiblity of the NGO Asity, which became the Malagasy affiliate of BirdLife International in 2008, when the Malagasy program of BirdLife International closed down its Madagascar office.

Specific offset and community development activities are defined together by Rio Tinto QMM and Asity. For example, they have jointly prepared a strategy for 2015-2019, including budgets that are negotiated annually between Asity and Rio Tinto QMM. The communities are not involved in these negotiations, nor are they aware of the activities included or the budget available to Asity for activities in their villages. We estimate that Asity put forward a budget for 2015/2019 of at least USD 350,000 for management of the biodiversity offset project at Bemangidy. For the activities in 2013 / 2014, Asity received 'bridge funding' which was supposed to pay for "daily work for people in the villages". As noted in Chapter 2, for villages affected by the Bemangidy-Ivohibe offset site this meant occasional tree planting work in 2013 and 2014 and some 50,000 Ariary [15 euros] a month to two people in the villages on a more regular basis.

In its observations and technical recommendations 2014, the Rio Tinto QMM Biodiversity Committee "*suggests that QMM seeks assurances that Asity proposes to spend a sufficient proportion of their budget for on-site activities at Bemangidy, and requests that arrangements be made for Asity to give a presentation on their work plan, activities and progress at Bemangidy at the next Committee meeting*."[43]

However, no further information about meetings, or minutes of meetings and recommentations, is available on the Rio Tinto Madagascar website. It is not clear if the Biodiversity Committee met in 2015, nor how much money allocated to the Bemangidy biodiversity offset has actually directly benefitted communities such as the village of Antsotso, that are affected by the Bemangidy offset project.

The Asity budget for the biodiversity offset also includes funds to pay for forest guards patrolling protected areas on State land to undertake extra visits at the Rio Tinto QMM biodiversity offset site.

6. Reflections on the field investigation

"They do not come to ask, they come to tell"

A report entitled 'Unsustainable: The Ugly Truth about Rio Tinto', quotes Gemma Holloway, a former volunteer with UK-registered NGO Azafady (working at Sainte Luce, the location of another of the three Rio Tinto QMM biodiversity offset sites) and sustainable development consultant to Rio Tinto QMM as saying that: "*the company's track record on the environmental front has […] been far from exemplary and its involvement in forest management in the areas around its existing and future mining sites has aggravated relations with local communities, and in some areas led to increased forest degradation and communities retaliating against their loss of ownership of local resources*."[44]

Our visit to Bemangidy confirmed that the situation at the Bemangidy biodiversity offset site is the same as that described by Gemma Holloway with respect to Sainte Luce: The project is causing hardship for local communities. There is exclusion at many levels, from restriction on villagers' traditional use of the forest—especially shifting cultivation—through to withholding of crucial information about the full scope and context of conservation projects as biodiversity offsets, and about the scale of the budget available to the implementing NGOs.

During meetings with villagers, it certainly became clear that the NGOs involved in the biodiversity conservation activities and the company had not been sharing much of the relevant information with villagers affected by the Bemangidy site —certainly nothing that would come even close to seeking free, prior and informed consent (FPIC). For example, soon after our arrival in one village we were told:

"The company QMM has this project here to protect the forest, and they are bringing students from Tana [Antananarivo, the Malagasy capital] to do research here in the forest. We don't understand very much what QMM wants here. They are planting some trees and that's it. We don't understand and we would be very grateful if you could share more information on their plans."

Villagers have to cross this lagoon to get from the village of Antsotso to their manioc fields in the sand dunes, the only place left for manioc cultivation since the Rio Tinto QMMM biodiversity offset project restricts access to the fields traditionally used at the edge of the forest.

We also heard that Asity representatives' general response to complaints has been 'We hear you'. For instance, when people explained that the payment for tree planting was too low or that the promised agriculture projects had not started yet, nor the planting of trees near the road, the answer was inevitably 'We hear you'. "But then nothing happens," villagers noted on several occasions.

Perhaps even more disturbing were revelations at meetings with Rio Tinto QMM and NGO representatives in Fort Dauphin, following our visit to the villages. In these meetings, we heard about methods and tactics used to 'make the offset project a success'. These tactics are not a unique occurrence in the conservation sector. But they are rarely shared in such a candid way.

For example, we were told that because Rio Tinto QMM is undertaking the biodiversity offset with a view to creating a "Net Positive Impact" on biodiversity, conservation NGOs had a particular obligation to help them succeed.

To introduce the Bemangidy biodiversity offset activities, NGO staff engaged in a series of visits to the communities. Sometimes, these were joint visits by the company and Asity; sometimes, Asity staff would visit the villages around the biodiversity offset site without Rio Tinto QMM representatives.

These visits were presented alternatively as a means of implementing the offset project in a participatory manner and as being part of a process of slow persuasion. "Basically it was brainwashing," we were told at one point in the conversation[45].

In a first meeting, NGO staff would talk about the importance of the forest, followed by the presentation of the biodiversity offset, which was introduced as a conservation project. There would also be a harsh critique about current land use practises.

We learned that not all community meetings went well. One meeting in particular, with Rio Tinto QMM representatives present, was described as "a fiasco", partly because villagers had requested resolution of the outstanding issue of compensation for lost access to the forest.

To avoid a similar 'fiasco' at the following meeting, Asity representatives visited villages without Rio Tinto QMM and arranged for the meeting to start with a church service. The meeting on the offset project that followed the church service was also held in the church, "to avoid disruption"[46]. It was thought that people would remain calmer in a church, and that it would be easier to prevent the meeting from turning into another 'fiasco'. This was described as "leveraging on the ecumenical culture".

Such "leveraging on the ecumenical culture" also facilitated alluding to God and ancestors as the ones who had requested protection of the forest "for future generations and to respect the ancestors".

Tapping into the strong culture of reciprocity in traditional customs—the importance of sharing, and the sentiment that if one does not learn how to give one will not receive—made it easier for the NGO to cast aside requests for compensation more easily.

Asity also take the view that it should not be the NGOs elaborating the project proposals. While this would appear a commendable approach at first sight, it can also be a barrier if circumstances prevent such community initiative. Asity insist that the communities themselves come up with alternative income generation projects, on the basis that the whole process is about sharing rather than giving. But what has been shared with communities we visited that might benefit them remains unclear.

Asity requires the communities' project proposals to be "economically viable". To this end it has carried out training sessions in villages about how to put together a project proposal for alternative income generation, assess the proposal's economic feasibility, present a budget, and develop a financial management plan. This needs to generate sufficient income

Tree nursery at the Rio Tinto QMM Mandena Education Center.

for the loan to be paid back. Villagers remembered the training, commenting that initially, it was calling for mainly women and the poorest people in the community to participate, so that they could benefit from an offer of microcredit. But most could not follow the training:

"He gave a training on financial management but it was too difficult. Especially for those who are illiterate, but even for those who have some level of education. Nobody understood what he said."

In such a context, few will be able to submit a project proposal, and presumably even fewer a proposal that will pass Asity's economic viability assessment.

We were told that to date, Asity had funded some 20 micro-credit loans (0 per cent interest loans) in the four COBAs that are linked to the Bemangaidy biodiversity offset site, of between 60,000 and 700,000 Ariary (16–200 euros) each. Most loans were small, with the justification that if people don't know how to manage small amounts they won't be able to manage big amounts: "Think big but start small."

For example, one villager had received 100,000 Ariary [28 euros] in August 2015 as micro-credit from Asity. He will have to pay back the loan from September 2015 onwards, and finish the repayment in November 2015. He was told that he had to pay back his loan before another person could receive a micro-credit.

There is another hurdle as well: To be considered for the different projects and microcredit loans, villagers have to be a member of the COBA and have to have paid their COBA membership fee. It seems this is a means of determining who is complying with conservation rules and use restrictions: "Those who haven't paid their fees, that's usually the trouble-makers", we were told in conversation. Considering the context in which COBAs are established and the role they play in enforcement of protected area management rules (see Chapter 1), such pre-requisits can easily turn into tools for enforcement of conservation rules imposed on communities.

The Rio Tinto conservation strategy includes community and environmental education activities at villages near offset sites. Asity staff mentioned that projects were ongoing to "teach the villagers how to cultivate improved species of manioc to meet their food security."

Community members at Antsotso were not aware that such improved manioc seedlings were available to them. But they spoke about NGO community education activities that were persuading communities to eat more rice and less manioc. Traditionally, in the villages we visited, communities eat manioc for eleven months of the year and rice for one. NGOs are advocating for rice to replace manioc as the staple food.

At the village of Iabakoho, where some alternative food production activities do appear to be taking place, a rice-growing project is being implemented with a German development NGO, Welthungerhilfe e.V.. The project involves helping the community to set up paddy fields to grow rice in, as an alternative to the cultivation of manioc. But similar assistance had not been offered to the villages we visited. People mentioned that they had expressed their interest in this to Asity on several occasions but Asity had never reacted or offered to support the establishment of a rice cultivation project. In particular, the community felt they would need advice about how to grow rice under the conditions they face and substantial financing to initiate such a project. Advocating for rice to replace manioc as the staple food in such a context also risks undermining food sovereignty in the villages, especially if there are no rice growing projects underway. It could transform families hitherto producing their own manioc from being producers of their own food to consumers who rely on a staple food they do not grow themselves (at all or in sufficient quantity). This would increase reliance on money (that villagers do not have) to buy the staple food, and expose villagers to the price shocks associated with global commodities markets.

Overall, with regards to capacity building and alternative income generation activities, this project is a showcase for why many such initiatives fail. It seems to completely ignore the realities of the villagers' lives, even though they are supposed to be the beneficiaries of capacity building and alternative income generation activities. Nor does there seem to be much interest in finding out what the actual needs in the villages are.

On the whole, villagers at the communities visited as part of the September 2015 field investigation felt that the "Asity project is just top-down. They don't discuss with the community."

7. What the visit taught us about the Rio Tinto QMM biodiversity offset

There is a wide gap between the picture presented in glossy brochures distributed internationally about the Rio Tinto QMM biodiversity offset in south-eastern Madagascar and the reality for villagers living around the Bemangidy-Ivohive biodiversity offset site.

The Re:Common and WRM field investigation in September 2015 confirmed that communities had not been informed about the forest conservation project being a biodiversity offset for the Rio Tinto QMM ilmenite mine near Fort Dauphin, some 50 kilometers south from the Bemangidy biodiversity offset site. They were left to believe that Rio Tinto was exploring the area for mining.

Villagers at the community of Antsotso also felt that there had been no negotiation about land use restrictions but that restrictions were imposed on them with little regard for their situation. Income generating alternatives to alleviate the loss of access to the forest were promised but have yet to materialise in any meaningful way[47], while restrictions are already in place.

"Why should we suffer for someone else's advantage?
We do not agree with this project"

In sum, communities that were struggling already before are now facing an increased risk of hunger and deprivation as a direct result of a biodiversity offset benefitting one of the world's largest mining corporations. Yet Rio Tinto is able to claim that its ilmenite mine has come "at the rescue of the unique biodiversity of the littoral zone of Fort Dauphin". This is despite the fact that a large portion of the 1,650 hectares of a rare littoral forest inside the mining concession will be destroyed during mining.

The mining giant and its collaborators speak enthusiastically of a "Net Positive Impact" on biodiversity, claiming that the coastal forest it is mining would have been destroyed anyway over the next few decades by local peasant farming practises. The arguments used

Sun setting over Rio Tinto QMM mine and harbour at Fort Dauphin.

to underpin this claim are certainly questionable. Regradless, Rio Tinto QMM argue that by retaining some forest inside the mining concession as well as protecting and restoring forest elsewhere that is similar to the one being destroyed at the mine, the company's mining activities will result in a "Net Positive Impact" on biodiversity, compared to what might otherwise have been. They further claim that the forest at the biodiversity offset sites would have been destroyed through peasant farming without the activities implemented by Rio Tinto and its partners through the biodiversity offset.

The reality, however, is very different from the story in the glossy brochures distributed internationally! Subsistence livelihoods of villagers affected not only by the mining itself but also by the biodiversity offset are made even more precarious so Rio Tinto can increase its profits from the extraction of ilmenite.

Further information

- Re:Common, Collectif TANY, SIF (2013): *Land grabbing in Madagascar: Echoes and testimonies from the field.* www.recommon.org - Download link: http://www.recommon.org/eng/?wpdmact=process&did=MTQuaG90bGluaw==

- Andrews Lees Trust and Panos (2009): *Voices of Change. A collection of testimonies from farmers impacted by the Rio Tinto QMM mine*. www.andrewsleestrust.org/hepa.htm

- Harbinson, Rod (2007): *Development Recast? A review of the impact of the Rio Tinto Ilmenite Mine in Southern Madagascar.* Panos report for Friends of the Earth.

- Lambolez, Fred and Jean Marie Pernelle (2013): *Je veux ma part de terre – Madagascar.* Video documentary.

- Friends of the Earth (2012): *Madagascar: Nouvel eldorado des compagnies minières et pétrolières***.**

- Bidaud, C. et al. (2015): *Voluntary biodiversity offset strategies in Madagascar. Ecosystem Services* (2015).

- Seagle, Caroline (2012): *The mining-conservation nexus: Rio Tinto, development 'gifts' and contested compensation in Madagascar.* The Land Deal Politics Initiative.

- Virah Sawmy, Malika (2009): *Ecosystem management in Madagascar during global change.* Conservation Letters, 2: 163–170.

- Friends of the Earth International (2015): *Financialization of Nature. Creating a New Nature*. Booklet. http://www.foei.org/wp-content/uploads/2015/10/Financialization-of-Nature-brochure-English.pdf

Endnotes

1. QMM stands for Qit Madagascar Minerals S.A., in which the Malagasy state holds 20 per cent and Rio Tinto 80 per cent. Rio Tinto QMM is the name of the Rio Tinto subsidiary that runs the mining operations at the Fort Dauphin ilmenite mine.

2. IUCN, is the world's oldest and largest global environmental organisation, with almost 1,300 government and non-governmental organisations as members.

3. For a selection of references, see C. Seagle (2011). The mining-conservation nexus Rio Tinto, development 'gifts' and contested compensation in Madagascar. LDPI Working Paper 11, P. 6

4. For detail on how Rio Tinto calculates the biodiversity equivalences between the forest destroyed at the QMM ilmenite mine and the forests used to offset the destruction, see Re:Common and WRM (2016): Rio Tinto in Madagascar: A mine at the rescue of destroying the unique biodiversity of the littoral zone of Fort Dauphin.

5. For an overview of the mine's history, see Land Grabbing in Madagascar: Echos and Testimonies from the Field – 2013

6. For more information on this latest application of offsetting see Metin Akyol, Michael Neugart, Stefan Pichler (2015): A tradable employment quota. Labour Economics, Volume 36, October 2015: 48-63.

7. New protected areas established after 2003 / 2004 tend to be managed by national or international conservation groups rather than the public agency Madagascar National parks, which manages the ca. 50 "historic" protected areas established between 1927 and 1999. As part of this management transfer to private sector conservation groups, the government implemented a number of management transfer contracts (transferts de gestion), implemented under the 1996 GELOSE law (Gestion Localisée Sécurisée or Local and Secured Management) and related 2001 GCF decree (Gestion Contractualisée des Forêts or Contractualized Forests Management). For more information on management transfers in Madagascar, see Jacques Pollini et al. (2014): The transfer of natural resource management rights to local communities. In: Ivan R. Scales (ed): Conservation and Environmental Management in Madagascar.

8. A national road connecting Fort Dauphin and Farafagana passes the villages. It is currently being upgraded and the road works on the stretch that passes the villages has been providing temporary work for some villagers.

9. Olsen, Nathalie, Bishop, Joshua and Anstee, Stuart (2011). Exploring ecosystem valuation to move towards net positive impact on biodiversity in the mining sector. IUCN and Rio Tinto Technical Series report No. 1.

10. Asity project staff explanation of the purpose of the project they are implementing with Rio Tinto QMM.

11. See for example, 'Carbon Crooks', a film by Tom Heinemann (Link: http://tomheinemann.dk/the-carbon-crooks/) or

'The Carbon Rush' by Amy Miller (Link: http://thecarbonrush.net/)

12. Interpol News Release. (Link: http:/ www.interpol.int/News-and-media/ News/2013/PR090)

13. This is what the IFC Performance Standard number 6 says.

14. See WRM Bulletin No. 222, March / April 2016, for more detail. http://wrm.org.uy

15. REDD stands for Reducing Emissions from Deforestation and Degradation of tropical forests. The plus was added to allow not only forest conservation but also logging and planting of trees to generate offset credits.

16. See for example, WRM (2015): REDD. A Collection of Conflicts, Contradictions and Lies. (Link)

17. Information about the many other conflicts and controversies linked with Rio Tinto mining operations can be found at the London Mining Network and IndustriAll global union website and report Unsustainable: the ugly truth about Rio Tinto.

18. Rio Tinto Biodiversity Strategy – Sustaining a natural balance, Rio Tinto 2004 http://www.riotinto.com/SustainableReview/Landaccess/programmes/Biodiversity/pdf/BiodiversityStrategy.pdf

19. IndustriALL (2012): Rio Tinto in Africa. Global Citizen or Corporate Shame? http://www.industriall-union.org/sites/default/files/uploads/documents/industriall-rio-tinto-africa-report.pdf

20. See the World Bank website for a detailed evaluation of the 'Integrated Growth Poles Project for Madagascar' programme. (Link)

21. Rowan Moore Gerety (2009): Mining and biodiversity offsets in Madagascar: Conservation or 'Conservation Opportunities?' Mongabay, 30 August 2009.

22. http://www.birdlife.org/community-blog/wp-content/uploads/2011/11/BirdLife-2011-Tsitongambarika-book-En.pdf

23. Background, http://www.riotintomadagascar.com/english/bioBackground.asp

24. Suivi environnemental – Un bilan positif des cinq premières années, N. 002 Magazine semestriel QMM, Octobre 2014 (http://www.riotintomadagascar.com/pdf/fasimaintyoct14.pdf)

25. Seagle, Caroline (2012): The mining-conservation nexus: Rio Tinto, development 'gifts' and contested compensation in Madagascar. The Land Deal Politics Initiative. Page 26.

26. Description of Rio Tinto's Net Positive Impact strategy on the billboards in the Office of Mandena Conservation Site

27. A mine at the rescue of the unique biodiversity of the littoral zone of Fort Dauphin, QIT Madagascar Minerals SA Press Kit, 2009.

28. http://bbop.forest-trends.org/documents/files/forecasting_npi_at_qmm.pdf

29. http://www.riotintomadagascar.com/english/pdfs/factsheets/QMM%20Fact%20Sheet%20Biodiversity.pdf

30. The actual time it takes to get to Bemangidy depends on how many vehicles are waiting at the three small ferry crossings along the way.

31. State Decree n. 2015-720 of 23 June 2015.

32. http://www.birdlife.org/community-blog/wp-content/uploads/2011/11/BirdLife-2011-Tsitongambarika-book-En.pdf

33. BirdLife, undated: Direct Payments for Conservation in Madagascar. http://www.birdlife.org/sites/default/files/attachments/Direct%20Payments%20for%20Conservation%20in%20Madagascar%20rt_5.pdf

34. "Forecasting the path towards a Net Positive Impact on biodiversity for Rio Tinto QMM", H. J. Temple, S. Anstee, J. Ekstrom, J. D. Pilgrim, J. Rabenantoandro, J-B. Ramanamanjato, F. Randriatafika and M. Vincelette. IUCN and Rio Tinto Technical Series No.2; Biodiversity, Positive impact of the programme: http://www.riotinto.com/diamondsandminerals/biodiversity-15520.aspx#faq-5

35. http://www.riotinto.com/documents/ReportsPublications/MDG_Biodiversity-offsets.pdf Page 5.

36. Rio Tinto QMM Biodiversity Committee page on Rio Tinto's website: www.riotintomadagascar.com/english/biocom.asp

37. http://www.riotintomadagascar.com/pdf/NPI.pdf

38. http://www.birdlife.org/community-blog/wp-content/uploads/2011/11/BirdLife-2011-Tsitongambarika-book-En.pdf

39. http://www.riotintomadagascar.com/english/biocom.asp

40. http://www.iucn.org/about/work/programmes/business/bbp_work/by_engagement/rio_tinto/

41. Ganzhorn et al. (2007): Biodiversity, ecology and conservation of littoral ecosystems in Southeastern Madagascar, Tolagnaro (Fort Dauphin) and the supplemental publication, Temple et al. (2012): Forecasting the path towards a net positive impact. IUCN and Rio Tinto Technical Series report No.2.

42. Re-mining the collection: From bio-prospecting to biodiversity offsetting in Madagascar. Benjamin D. Neimark and Bradley Wilson. Geoforum 22 (2015).

43. http://www.riotintomadagascar.com/english/com2014b.asp

44. IndustriALL (2014): Unsustainable: the ugly truth about Rio Tinto. Page 14.

45. Response from Asity, received on 08 April 2016 by Email: "la façon dont on a rédigé la phrase ne relate pas vraiment la réalité. Primo, le « lavage de cerveau » n'est pas le mot approprié, mieux vaut dire que c'est un moyen d'apporter des éclaircissements pour la population. Secundo, les visites servent à sensibiliser la population sur les tenants et aboutissants du projet Offset." [The manner in which the sentence is written does not really reflect reality. First, "brain-washing is not the appropriate word, it is better to say that it is a process of clarification for the population. Second, the visits serve to raise awareness about how the Offset project works.]

46. Response from Asity, received on 08 April 2016 by Email: "En voici la réalité : tout au début, des groupes de personnes trouvaient toujours les moyens de perturber la réunion. Pour éviter cela, nous avons négocié avec les responsables de l'Eglise de Iaboakoho à débuter la réunion par une prière, et de prendre les décisions difficiles dans l'église même." ["Here's the reality: at the beginning, groups of people always find ways to disrupt such meetings. To avoid this, we negotiated with the leaders of the Church at Iaboakoho to start the meeting with a prayer, and to take the tough decisions in the church."]

47. Community members felt that the micro-credit activities approved so far in their communities were not providing alternatives for the loss of land on which to grow food.

Rio Tinto's biodiversity offset in Madagascar

Double landgrab in the name of biodiversity?

In recent years mining companies have become actively engaged in promoting 'biodiversity offsetting' as a way of 'greening' the mining sector. One offset project in particular, the Rio Tinto QMM biodiversity offset in the Anosy region of southeastern Madagascar, has been widely advertised as a biodiversity offset model.

Rio Tinto and its partners from the conservation sector claim that the company's biodiversity conservation strategy will not only compensate for biodiversity loss but that mining will even have a "Net Positive Impact" on biodiversity in the end. However, a joint Re:Common and WRM field investigation in 2015 found that the reality is very different from the story in the glossy brochures distributed internationally.

Subsistence livelihoods of villagers are made even more precarious so Rio Tinto can increase its profits. Villagers at one biodiversity offset site felt that restrictions had been imposed without negotiation and with little regard for their situation. Income-generating alternatives to alleviate the loss of access to the forest had been promised but have yet to materialise while severe restrictions on community forest use are already in place.

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