QMM. Biodiversity, Communities and Social Performance Multi Year Plan
2016 - 2021
# Biodiversity, Communities and Social Performance Multi Year Plan 2016 - 2021

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## Acronyms

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<th>Acronym</th>
<th>Description</th>
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<tr>
<td>BAP</td>
<td>Biodiversity Action Plan</td>
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<tr>
<td>COGEMA</td>
<td>Mandena Management Committee (Comité de Gestion de Mandena)</td>
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<tr>
<td>CRD</td>
<td>Anosy Regional Development Committee</td>
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<tr>
<td>CRFPTA</td>
<td>Anosy Vocational and Technical Training Center (Centre Regional de Formation professionnelle et technique d’Anosy)</td>
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<tr>
<td>CSP</td>
<td>Community and Social Performance</td>
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<tr>
<td>CSP MYP</td>
<td>Communities and social performance multiyear planning</td>
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<td>CI</td>
<td>Community Investments</td>
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<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
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<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft fuer Internationale Zusammenarbeit GmbH</td>
</tr>
<tr>
<td>HDI</td>
<td>United Nations Human Development Index</td>
</tr>
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<td>IFRA</td>
<td>Regional Financial Institution of Anosy (Institution Financière Régionale d’Anosy)</td>
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<tr>
<td>ISTA</td>
<td>Superior Institute of Technology in Anosy (Institut Superieur de Technologie de la region d’Anosy)</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicators</td>
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<tr>
<td>MECIE</td>
<td>Ensuring the Environmental Suitability of Investments (Mise en Compatibilité des Investissements avec l’Environnement)</td>
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<td>NPI</td>
<td>Net Positive Impact</td>
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<tr>
<td>PAGS</td>
<td>Land use and Management Plans (Plan d’Aménagement et de Gestion Simplifié)</td>
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<td>PDI</td>
<td>Integrated Development Program</td>
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<tr>
<td>PEMP</td>
<td>Project Environmental Management Plan</td>
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<tr>
<td>PIC</td>
<td>World Integrated Growth Pole Project</td>
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<td>QH</td>
<td>Quality Hectare</td>
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<td>RT</td>
<td>Rio Tinto</td>
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<tr>
<td>RTQMM</td>
<td>Rio Tinto QIT Madagascar Minerals</td>
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<tr>
<td>SEIA</td>
<td>Social and Environmental Impact Assessment</td>
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<td>SEMP</td>
<td>Social and Environmental Management Plan</td>
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<td>SLO</td>
<td>Social License to Operate</td>
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<tr>
<td>SME</td>
<td>Local community small-to-medium enterprise</td>
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<tr>
<td>SO</td>
<td>Strategic Objective</td>
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<td>UD</td>
<td>Units of Global Distribution</td>
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Executive summary

QIT Madagascar Minerals’ (RTQMM) five-year Biodiversity and Communities and Social Performance (CSP) plan for the period 2016-2021 is an adaptive management document that provides a framework for strategic community investments (CI) based on mutual benefits. The plan sets out how to meet regulatory requirements, mitigate risks on business activity and provide mutually agreed benefits to host communities to ensure RTQMM’s investments are secured and license to operate is maintained. In the context of this Biodiversity and CSP, the terminology “community investments” is used to emphasize value investment based on mutual benefits to ensure RTQMM’s obligations to mitigate or compensate for environmental or social impacts of the project are sustainable.

The Biodiversity and CSP plan details RTQMM’s five year strategy and framework for CI by introducing the business and country context and the parameters for RTQMM license to operate, which includes a summary of Rio Tinto’s CSP Standard, the regulatory framework and environmental and social legal obligations under which RTQMM operates, RTQMM’s Net Positive Impact (NPI) biodiversity commitment and social license to operate (SLO).

RTQMM business drivers are analyzed through an external analysis of RTQMM’s stakeholder engagement and dialogue by providing a review of the stakeholder context, analytical process, and the key lessons learned from this process to rebuild stakeholder trust and confidence. An internal analysis of Biodiversity and CSP strategic risks and RTQMM land and community risks is included; and the importance of interdepartmental and intradepartmental collaboration in order to ensure Biodiversity and CSP risks are mitigated across all levels of the business is highlighted.

RTQMM business drivers are defined by strategic objective (SO), result, sub-result (SR) and performance indicators. RTQMM’s Biodiversity and CSP plan includes four SOs:

- Transversal Strategic Objective: Dialogue and Stakeholder Engagement
- Strategic Objective 1: Biodiversity, Ecosystems and Natural Resource Management
- Strategic Objective 2: Impact Management through Community Partnerships
- Strategic Objective 3: Local Economic and Competency Development

Achievement of the SOs will allow for RTQMM’s global purpose and goal to be met and maintained as summarized below:

Global Purpose: Ensure legal obligations and social license to operate to secure investment, growth, reputation and legacy

Global Goal: Attain community respect, trust and confidence through a dynamic partnership based on mutual benefits and engagement

The focus of the Dialogue and Stakeholder Engagement SO, which is transversal across all SOs, is to establish equitable and permanent dialogue with communities and stakeholders to maintain mutual benefits and commitments. To ensure genuine engagement and dialogue, RTQMM has adopted a participative community partnership approach based on joint responsibilities, mutual benefits and concrete actions. RTQMM will pursue this objective through results aimed at ensuring:

1) Appropriate spaces for equitable dialogue based on mutual benefits are functional;
2) Reliable and transparent information is available and accessible to all stakeholders;
3) Governance principles and values are mutually respected by all stakeholders;
4) Balance between an industrial business and local cultural values are understood and maintained.

The Ecosystems and Natural Resource Management SO strives to ensure biodiversity conservation, ecosystem services, and sustainable access and availability to natural resources by communities impacted by the mine. This SO directly contributes to both RTQMM’s NPI biodiversity goal and legal environmental and social obligations, and the interrelated factors that underpin the success of these commitments. To attain the SO, RTQMM is realigning and implementing an integrated spatial approach by targeting land and natural resources management and community stewardship that links inter-connected commitments and obligations within
areas of direct responsibility, areas of interaction and areas of influence. The SO is to be achieved through four results aligning to the different levels of responsibility: 1) Biodiversity conservation within protected areas and offsets; 2) Availability and access to timber and non-timber products and wetlands for impacted communities; 3) Community land access and security within mining perimeter; and 4) Multi-stakeholder partnerships to mitigate natural resource loss. The interdependence between these different results is key to ensure the SO is achieved.

The focus of the Impact Management through Community Partnerships SO is to mitigate mining impacts, through community partnerships based on mutual benefits and rights. RTQMM has learned managing impacts throughout RTQMM’s lifecycle necessitates ongoing stakeholder engagement and dynamic community partnerships. This involves minimizing impacts on communities during project planning, mitigating impacts that occur, and leaving communities better off through restoration of livelihoods and other investment initiatives. The SO is to be achieved through three results: 1) Access to surface rights within mining concessions are obtained in conformity with legal framework; 2) Impact management processes are easily understood, transparent, and accessible to stakeholders with proactive and timely responses and 3) Impacts of the mine and related infrastructures are identified and effectively managed through community partnerships.

To implement business drivers, RTQMM considers different implementation operational modalities provided by the International Finance Cooperation (IFC). Options include in-house implementation (Directly by RTQMM), collaborative engagement, catalyst role, hybrid and sustainable financing. RTQMM has learned the use of a “hybrid” implementation modality provides the greatest advantage to deliver results.

To track performance of business drivers, RTQMM has established a restructured and interactive performance monitoring and evaluation (M&E) system. This system will be more strategic and measure business drivers and CI by focusing on: 1) setting objectives, indicators and measures of success with partners and stakeholders, 2) outcomes and impacts; and not just outputs 3) qualitative, and not just quantitative indicators 4) tracking changes in community perceptions 5) making measurement participatory and 6) M&E results to drive resource allocation for CI based on social return on investment.
Preface

Biodiversity and Communities and social performance multi-year planning (Biodiversity and CSP MYP) is a process for developing a business-driven five year strategic plan to align the business and host communities to a common set of mutually agreed objectives. Over the past three years, QIT Madagascar Minerals (RTQMM) has invested in an ongoing and collaborative process with diverse stakeholders (internal and external), while managing and drawing lessons learned from community issues and conflicts. The result of this process is to clearly define the business's priorities and engagement work with host communities and the results and actions required to advance these priorities.

RTQMM’s five-year Biodiversity and Communities and Social Performance (CSP) plan for the period 2016-2021 is an adaptive management document that provides a framework for strategic community investments (CI) based on mutual benefits. The plan sets out how to meet regulatory requirements, mitigate risks on business activity and provide mutually agreed benefits to host communities to ensure RTQMM’s license to operate and secure current and future investments.

I. Introduction: Biodiversity and CSP Strategic Vision and Goal

Rio Tinto’s Biodiversity and Community and Social Performance (CSP) vision is to build enduring relationships with host communities that are characterized by mutual respect, active partnership and long-term commitment1. The purpose is to ensure legal obligations and social license to operate to secure investment, growth, reputation, and legacy. The overall goal is to attain community respect, trust and confidence through a dynamic partnership based on mutual benefits and engagement. This will allow for the creation of lasting improvement in the quality of life of host communities, which in turns generates business value for RTQMM in the form of broad community support, mutual and reputational benefits, risk reductions, productivity gains and competitive advantage. RTQMM uses social performance management tools such as Community and Stakeholder Engagement and Community Investments (CI) to manage the socioeconomic impacts of the operation and contribute to sustainable local community development. In the context of this CSP, the terminology “community investments” is used to emphasize value investment based on mutual benefits to ensure RTQMM’s obligations to mitigate or compensate for environmental or social impacts of the project are sustainable.

Over the past three years, RTQMM has been developing and refining a comprehensive, strategic, CI framework to ensure investments deliver results which are sustainable, consistent with RTQMM’s business objectives, and able to evolve and adapt to changing circumstances. Greater emphasis is being placed on the business case, where CI are viewed through the lens of risk and opportunity, and where shared value is created by aligning business goals and competencies with local community and stakeholder priorities.

RTQMM’s strategic CI framework encompasses five key elements that reinforce one another: strategic orientations, multi-stakeholder partnerships, internal and external alignment, mutual identification of results and management, and sustainable approaches. The process by which RTQMM engages local communities, stakeholders and partners, and the spirit in which it is done, are as important to the success of CI as the strategy itself. The building blocks of CI – trust, mutual respect, transparency, capacity development, shared learning, and local ownership – are all being developed through an ongoing and iterative process of collaboration and partnership with RTQMM’s host communities based on mutual benefits.

This Biodiversity and CSP plan details RTQMM’s upcoming five year (2016-2021) strategy by:

1. Understanding the Business and Country Context
2. Analyzing Business Drivers
3. Defining Business Drivers: Strategic Objectives, Results and Performance Indicators
4. Implementing Business Drivers
5. Monitoring and Evaluation System to Track Performance of Business Drivers (Results and Outcomes)

Strategic Planning Process: RTQMM began its broad and comprehensive process of consultative analysis and CSP planning during 2013. Numerous workshops were held and facilitated a collaborative process with input from the Communities and Sustainable Development (CSD) team and other RTQMM business unit departments. The broader involvement of RT Corporate and RTQMM Management Teams in carrying out strategic, resource, environmental, community and cultural heritage risk analyses has assisted in prioritizing key initiatives for the next five year period. This Biodiversity and CSP plan will be reviewed annually; however, strategic orientations, results and outcomes defined in the plan provide the long-term strategic direction of RTQMM’s work with communities and stakeholders.

1 Source: Rio Tinto Communities Policy
II. Understanding the Business and Country Context

A. Business Context

1. RTQMM Project

The RTQMM ilmenite project - 80% owned by Rio Tinto with the Government of Madagascar holding a 20% investment share - is located in the southeastern Anosy region of Madagascar. Over a period of approximately 60 years, the mineral sand mining operation will extract ilmenite and zir sill (zircon mixed with sillimanite) from silica sand covering an area of 6,000ha. The ilmenite contains about 60% titanium dioxide and is used in the production of white pigment for automotive and industrial paints, building materials, and to a lesser extent in the manufacture of plastic and paper. Zircon has many industrial and manufacturing applications.

RTQMM holds mining rights to deposits located in three blocks (Petriky, Mandena and Ste Luce). These three deposits are located over a distance of approximately 60km parallel to the coast. Current mining activity is taking place at the 3,200ha Mandena site situated 10km from the capital of Anosy, Fort Dauphin (Tolagnaro). The raw minerals are trucked 14km to the Ehoala Port where they are shipped to Rio Tinto’s processing facilities (smelter) in Sorel, Canada. RTQMM currently employs 624 employees, of which 73 percent are from the Anosy region and 24 percent Malagasy from other regions.

<table>
<thead>
<tr>
<th>Key Dates</th>
<th>Events</th>
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<tr>
<td>1986</td>
<td>Exploration activities initiated</td>
</tr>
<tr>
<td>1989-1992</td>
<td>Phase 1 of Social and Environmental Impact Assessment (SEIA)</td>
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<tr>
<td>1998</td>
<td>Framework Agreement is signed and ratified by the Government of Madagascar</td>
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<tr>
<td>1998-2001</td>
<td>Phase 2 of SEIA</td>
</tr>
<tr>
<td>2001</td>
<td>SEIA is submitted for Government approval and Environment Permit for Mandena mining concession is granted</td>
</tr>
<tr>
<td>2005</td>
<td>Investment decision is made</td>
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<tr>
<td>2006</td>
<td>Construction of Mandena, the first mining site, and related infrastructure begins</td>
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<tr>
<td>Dec 2008</td>
<td>Production commences at Mandena</td>
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<tr>
<td>June 2009</td>
<td>New deep-water, public-private, Ehoala Port is opened</td>
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2. Global Context and Challenges

Shifts in demand and dramatic price fluctuations in commodity prices are currently impacting the global extractive industry. Between 2010–2013 the average spot price of iron ore declined by 72% and the ilmenite price by 49% (Bezanson et al. 2015). A combination of the cumulative and knock-on effects of “the great recession,” China’s slowed growth and subsequent demand for international commodities, and RT’s precipitous allocation of capital during the mining boom of the 2000s, led RT to report a net loss in 2012 for the first time in 25 years. Significant changes to the business culture were undertaken as a result, with a renewed focus on shareholder value, accountability, efficiency and managing for cash. In order to continue as a competitive player in today’s turbulent global market, and put the company back on a path of measured and sustainable growth, decisions have been made to reconnect RT with its core balance-sheet discipline. This has meant widespread measures to cut costs, exit businesses and rationalize RT workforce worldwide (Walsh 2016). While these actions have placed RT in a strong position, last year market prices continued to rapidly fall, with some commodities down as much as 80 per cent from their highs and nearing long-term historic averages. This situation is not temporary and the industry is now moving into the “new normal,” which means RT must continue to be one step ahead.

Three years ago, RTQMM like other members of the RT Group, began the implementation of its own transformation plan to address this unprecedented market weakness. At the beginning of 2013, plans to expand into Ste Luce, the second site approved for mining exploitation, were suspended. A major program of cost containment has since been rolled-out to ensure RTQMM is free cash flow, which has resulted in a climate of cost reductions and strict financial austerity.

This effort is improving RTQMM’s competitiveness as the company continues to put into place strong foundations. However, for the business to continue to compete on the international market, further steps are required to lower costs. This includes measures to improve business production and operational efficiency to further significantly reduce the overall unit cost base from $331/ton to $100/ton. These circumstances present new challenges as RTQMM works to ensure it properly manages its risks, secure investments and safeguard commitments to social and environmental stewardship.

B. Country Context

1. National and Regional Context and Challenges

a. National Context and Challenges

Madagascar, the fourth largest island in the world, is one of the most exceptional global biodiversity hotspots. Some experts believe that the country’s habitat harbors more genetic information per unit area than anywhere else in the world. A hectare of forest lost in Madagascar has a greater negative impact on global biodiversity than a hectare of forest lost virtually anywhere else on earth.

Paradoxically, it was also one of the poorest countries in the world. According to the 2015 United Nations Human Development Index (HDI)2, 87 per cent of the population is estimated to live below the income poverty line of US$1.25 per day. Madagascar’s approximately 24 million people are composed of 18 ethnic groups living across 22 regions. The vast majority of Madagascar’s fast-growing population depends on low-productivity, extensive agriculture, and natural resources for their livelihoods.

Poverty, extensive agriculture practices, high population growth, and weak natural resources governance threaten Madagascar’s natural resource base and land productivity. Deforestation, bush fires, and extensive cropping of marginal lands result in destruction of the ground cover necessary to prevent soil erosion. This in turn contributes to watershed instability, topsoil loss, and negative impacts on the country's ecosystems and unique biodiversity.

Madagascar’s economy has considerable untapped potential. Gross domestic product (GDP) is estimated at US$ 11.8 billion (2013)3, with agriculture playing a central role and contributing to approximately 27.3% of the country’s export earnings. Informal activities overwhelmingly dominate Madagascar’s economy. The artisanal mining sector is one of the largest providers of employment in the country, with an estimated 500,000 full-time and seasonal artisanal miners taking part in gold and precious stone extraction. Large-scale mining has enormous potential and is expected to have a significant impact on national GDP. Untapped deposits in nickel, titanium, cobalt, iron, coal and uranium can be found across Madagascar. In 2013, 30% of Madagascar’s exports were minerals, with the mining sector contributing 2.12% to GDP. Growth of extractive industries was far greater than that of the primary, secondary or tertiary sector between 2000 and 2012 (World Bank, CSRM). If this trend is maintained, Madagascar could become a resource-rich country as defined by the IMF3.

b. Regional Context and Challenges

The Anosy region where RTQMM operates covers 25,000km2 and is an exceedingly poor, isolated and environmentally fragile area (See Figure 2). It is one of the most ecologically diverse areas in the country owing to its matrix of habitats including littoral forests, lowland mountain humid forests, dry forests, wetlands,

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2 IMF World Economic Outlook database
3 A resource-rich country is one in which, over the course of several years, non-renewable natural resources account for either at least 20 percent of total exports, or 20 percent of natural resource revenues (IMF, 2014).
and grasslands. The region’s capital, Fort Dauphin (Tolagnaro), is built on a coastal peninsula and has a population of approximately 75,000. It is one of the least developed urban centers in the country and is located approximately 1,250km by land from Madagascar’s capital, Antananarivo. Deteriorated road networks, degraded infrastructure, low levels of skilled individuals, high rates of unemployment, and limited reinvestment and support services for local businesses, compound the fragile socio-economic context.

In 2009, the region’s rapid upward trajectory came quickly to a halt. The end of the construction phase, and RTQMM’s production start-up, coincided with a political coup that sent Madagascar into a deep and damaging political, economic and social crisis for the next six years. Official development assistance, which accounted for fully 50% of all public expenditures and 75% of all public capital investment the year prior, was suspended, and foreign investment quickly came to a halt. The consequences for Anosy and RTQMM were widespread. After years of careful planning to ensure the mining project would operate within a larger regional development framework, leveraging assets of a comprehensively devised public-private partnership, RTQMM became, de facto, one of very few sources of regional employment and spend.

Navigating this period of change and crisis required a range of new arrangements and coping strategies. The World Bank PIC program was suspended in 2009 and later resumed in 2012 as an exception in the halt of economic and infrastructure investments by other donors. RTQMM took the opportunity to demonstrate it remained an active player by contributing to initiatives implemented by PIC through a public-partnership agreement signed between the two partners and the Anosy region. A number of quick-impact, high-visibility projects, mainly in infrastructure, local enterprise development and capacity building, were implemented to sustain a minimal level of economic growth. In early 2014, the return of an elected government raised hopes of an economic rebound and return to a sustainable development path.

RTQMM’s approach to promoting economic development in Anosy has evolved with each of the business phases, while adapting to internal and external circumstances. Different approaches have been applied in response to changing business drivers. As the types of risks and opportunities have evolved, so has RTQMM’s strategy and the variety of activities that flow from it.

In light of the context today, RTQMM is aligning its business drivers based on core business objectives and risks. RTQMM is promoting local content initiatives as a key driver of local employment and an opportunity to share mutual benefits from activities with local communities and host government. While RTQMM continues to contribute to the creation of a robust parallel economy by mine closure, reinforced efforts are also being taken to re-engage in regional development platforms with other technical and financial partners to allow the Anosy region and its partners to advance regional socio-economic development. Details of these initiatives are further discussed below and in the Annex (Strategic Objective 3: Local Economic and Capacity Development and Stocktaking Analysis: Local Economic Development).
2. Community Context and Challenges

Nine communes (municipalities), including eight rural (Soanierana, Manambaro, Sansambo, Ankaramena, Ampasy Nahampoana, Mandromondromotra, Mahatalaky and Iaboakoho) and one urban (Fort Dauphin) border RTQMM’s three mining concessions and related infrastructures. These communes are directly impacted by RTQMM’s operation and are the target communities in which RTQMM prioritizes.

Households from RTQMM’s target communes are heavily dependent on ecosystem services and the natural resource base to satisfy their subsistence and income needs. In communities located on or near the coast, marine fishing (lobster and fish) makes the most significant contribution to household income. Inland communities rely more heavily on farming; producing and harvesting cassava, rice, fruit, vegetables and spices. Other livelihoods activities widely practiced include weaving using the mahampy reed harvested from wetlands, fresh water fishing and some animal husbandry, including cattle rearing. The surrounding forests are harvested as a source of wood for construction, fuel and charcoal. They are also home to medicinal plants and honey bees, which are exploited by local communities.

Although no human settlements were located on the Mandena deposit, approximately 15,000 people live within a few kilometers of the mining site in the two communes of Ampasy Nahampoana and Mandromondromotra. These communities are characterized by high levels of in-migration by people from different parts of Madagascar, which often results in unequal land access and resource use rights between the Antanosy (the predominate ethnic group of the Anosy region), long-established residents and recent migrants. The lack of legally recognized rights to land and natural resources is characteristic of rural Madagascar. Understanding community dynamics and determining land rights of recently installed occupants is a major ongoing challenge for RTQMM, which is further discussed in sections below (Analyzing business drivers: External analysis)

C. Parameters for RTQMM License to Operate

1. Legal Mining Framework in Madagascar

Globally, mining is a heavily regulated industry governed by numerous legislations, regulations, policies, guidelines and commitments. RTQMM led the way in Madagascar in the 1990’s as the first large-scale mining investment project by working in tandem with the Government of Madagascar to ensure an alignment with international standards. QIT Madagascar Minerals S.A. mining operations is based on a legal framework between the Government of Madagascar and QIT IRON TITANIUM referred to as the “Framework Agreement.”

Building and maintaining a socioeconomic knowledge base

RTQMM’s approach to working with communities is founded on the development of a fit for purpose social and economic knowledge base. This knowledge base, comprised of community characteristics, socioeconomic baselines, impact assessments, social risk assessments, stakeholder analyses and more, informs business planning, strategy and decision making based on the types of actors and their resources, logic of production, and constraints. It also allows the assessment of social risks and conflicts.

Since the early 1990’s, when initial social and environmental baseline studies were commissioned, RTQMM has been collecting and continually expanding the socioeconomic profile of its operating context. A solid knowledge base for each of RTQMM’s three intervention zones (Ste Luce, Mandena and Petriky) is continually updated and expanded on in accordance with RT’s Socioeconomic knowledge base guidance and Biodiversity and CSP standard.

The agreement, a first of its kind, was ratified by the Malagasy National Assembly in February 1998 as Law No. 98-002. It defines the legal conditions and parameters for the extraction of mineralized sands as well as exceptions to the legislation and regulations in force. The legal text of this agreement was used as the basis for the “Law for Large-Scale Mines” that was ratified in 2004. All mining operations in Madagascar also comply with provisions of the Malagasy Mining Code and its implementing decree that serves as the legal reference for all mining activities. These two legislative texts define RTQMM rights, duties and obligations to the state, local government, environment and community.

Malagasy Environmental Legislation put into place in the early 1990s was one of the first in Africa. Due to the importance of Madagascar’s biodiversity, international law and standards greatly influenced Malagasy environmental legal framework. The Malagasy Environmental Charter adopted in 1990, and amended in 2005 (Law no. 20015–015), is the legal foundation of Madagascar’s environmental legal framework. The charter recognizes the environment as a priority preoccupation of the country’s general interest, the duty of each to protect it, and the rights of each person to be informed and participate in the decision. Based on this charter, the Malagasy enacted several laws and decrees that embody its objectives.
The MECIE Decree (Implementation of Investment in Environmental Compatibility) requires environmental and social reviews and obligations for all investments. RTQMM was the first large-scale mining investment to follow the Environmental and Social Impact Assessment (SEIA) review process, which resulted in the award of an environment permit for Mandena in 2002. Specific texts provide the legal provisions and obligations in which RTQMM is required to comply. Other relevant texts are forestry legislation (POLFOR), code governing protected areas (COAP), law governing the community management of renewable resources (GELOSE), and laws governing water management, and land tenure. These regulatory requirements and obligations are summarized in Table 2.

### Table 2: Regulatory and other requirements under which RTQMM operates

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| National Legislation | • Madagascar Mining Code: Law 2005-021  
• Environmental Assessment regulation (MECIE): Decree 2004-167  
• Madagascar Environmental Charter: Law 2005-015  
• Madagascar Water Code: Law 98-029  
• Madagascar Land Tenure Code: Law 2005-019 |
| Agreements | Agreement with ONE (Monitoring and Compliance review) |
| Rio Tinto standards and guidelines | Internal standards and guidelines developed by Rio Tinto to ensure a common approach to managing environment and social obligations |
| International requirements | • ISO 9001-2008 & 14001-2004  
• International Finance Corporation (IFC) Environmental and Social Performance Standards and Guidance Notes (ex: Standards 5: Land acquisition and involuntary resettlement) |

2. RT CSP Standard

Rio Tinto’s Communities and Social Performance (CSP) standard provides a framework of mandatory requirements for all Rio Tinto businesses to comply with Rio Tinto's Communities policy. RTQMM is required to maintain compliance with Rio Tinto standards, and to review and refer to relevant guidance when planning CSP work. The CSP standard dictates the performance requirements which RTQMM must meet throughout the life of its operations. This Biodiversity and CSP plan responds directly to these mandated requirements.

By July 2016, all RT businesses must integrate CSP into the Rio Tinto management system (RT-MS) to improve compliance and strengthen the systematic application of the CSP standard. As part of this integration process, RTQMM has undertaken a gap analysis. The following elements have been or are being put into place to allow for adequate monitoring and adaptive management of the CSP:

- **CSP performance (Standard 1.1):** CSP plan development and implementation informed by socio-economic knowledge base based on community and stakeholder mapping analysis, engagement and social risk analysis
- **Social and economic knowledge base (Standard 1.2):** Externalized monitoring and evaluation system to consolidate and analyze data and information by result and activities
- **Consultation and engagement (Standard 1.3):** Permanent and regular dialogue and engagement mechanism with all impacted communities and stakeholders
- **Social and economic impacts and resettlement (Standard 1.4 and 1.9):** Community partnerships and investments with impacted communities based on mutual benefits complimented by synergy with other stakeholders through regional platforms and structures
- **Initiatives, activities and targets (Standard 1.5):** Ongoing analysis to ensure activities are responding to community priorities and initiatives
- **Cultural heritage (Standard 1.6):** Documentation of cultural heritage in monitoring and evaluation system
- **Community complaints, disputes and grievances (Standard 1.7):** Internalized complaint management system tracked and monitored through Borealis

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4 Source: Rio Tinto Communities and Social Performance Standard, December 2014.
Specific objectives of the updated SEMP include:

- Identification of environmental and social aspects related to the extraction and separation of mineral sands;
- Implementation of RTQMM activities in accordance with Malagasy legal requirements arising from the project’s environmental approval process;
- Compatibility of the SEMP with the social and environmental commitments outlined in the Project Environmental Management Plan (PEMP).\(^5\)

- Implementation of RTQMM activities in accordance with Rio Tinto’s commitments on Health, Safety and Environment (HSE), Biodiversity and Communities and Social Performance and Sustainable Development;
- Consideration and implementation of mitigation measures, particularly when they are subjected to conditions of environmental approval;
- Implementation of action plans to minimize and monitor the project’s impact on the human and biophysical environment;
- Definition of responsibilities of key personnel in relation to the SEMP;
- Environmental and social commitments of the project are well understood by RTQMM employees, including subcontractors;
- Communication of information derived from the SEMP to government authorities, concerned citizens and RTQMM employees.

This CSP plan integrates all relevant community, ecosystem services, natural resources, biodiversity, and sustainable local development obligations as dictated in the SEMP within the objectives, results and indicators highlighted throughout the document.

### 4. Net Positive Impact (NPI) Biodiversity Commitment

Littoral forest, one of three environments found across RTQMM’s mining zones, is a rare humid to sub-humid evergreen forest adapted to sandy substrates that is highly threatened. Littoral forest is estimated to presently cover less than 1% of Madagascar’s total land area, but contains 13% of the nation’s native flora (BAP, 2010). At Mandena, 614 plant species have been recorded, 83% of which are endemic to Madagascar and 7% only known to be found in the mining perimeter. The area (found in the mining zone alone) also supports 96 species of reptiles and amphibians, 77 bird species, numerous mammal fauna and 12 invertebrate species. Over RTQMM’s anticipated lifespan of 60 years, approximately 1,665 ha (3.5% of Madagascar’s remaining 47,900 ha of littoral forest) is expected to be lost due to mining. In particular, the dredging process entails not only clearance of vegetation but also removal of soil and its constituent seed bank (BAP, 2010). This results in the most significant direct negative impact of RTQMM’s activities on regional biodiversity.

RTQMM recognized that its ability to gain access to the rich mineral deposits beneath some of the last remnants of littoral forest would mean working to mitigate its mining activities, while preserving as much biodiversity as possible. RTQMM’s ability to manage its risks and preserve its reputation would be dependent, in large measure, on demonstrating that its business activities can have a positive impact on the natural and social environment in which it operates.

\(^5\) RTQMM submitted the PEMP, based on the SEA, in November 2001. The plan clarified the legal requirements and engagements of RTQMM in the framework of the Mandena sector of the mining project. See Section VI. Monitoring and Evaluation for more details.
In 2004, Rio Tinto launched its corporate biodiversity strategy at the IUCN World Conservation Congress. This strategy was based on years of environmental planning and scientific study largely pioneered at RTQMM’s site in Madagascar. The specific goal of achieving a Net Positive Impact (NPI) on biodiversity was embedded in this strategy and RTQMM was selected as a critical flagship site to test the tools designed to achieve and quantify biodiversity NPI.

To reduce overall impact on biodiversity values, RTQMM implements the ‘mitigation hierarchy’ of avoidance, minimization, restoration and rehabilitation. This includes establishment of conservation zones, commitments to ecological restoration, rehabilitation of mined areas, and additional conservation actions that are integral to RTQMM’s SEMP environmental obligations. As there will still be significant residual impacts, achieving a NPI also requires off-site biodiversity offsets. Specific elements of these commitments are defined in Table 3 and illustrated in Figure 3.

### Table 3: NPI on biodiversity elements to satisfy SEMP and corporate NPI commitments

| Regulatory requirements to meet SEMP obligations | Conservation zones established pre-mining | Legally protected zones in the Mandena, Petriky and St Luce mining concessions, totaling 624 hectares, protecting app. 27% of remaining littoral forest in these zones, which will significantly improve fauna and flora habitats |
| Rehabilitation and restoration | Rehabilitation of all mined areas: 30% indigenous species, 70% fast growing for local fuel |
| Corporate NPI commitment | Biodiversity offsets | Management of three offset sites (Sainte Luce, Mahabo and Bemangidy) that have all been incorporated within protected areas to obtain sufficient gains in natural forest cover and conservation of priority species |

**Figure 3: NPI Biodiversity Mitigation Hierarchy**

- **Net Positive Impact**
  - **Ofs**: Offsets
  - **ACA**: Additional Conservation Actions
- **Residual Impact**
  - **PI**: Predicted Impact
  - **Av**: Avoidance
  - **Mt**: Mitigation
  - **Rs**: Restoration
- **Elements of NPI**
  - **Source**: Rio Tinto and Government of Australia
A key element of the NPI commitment has been the development of comprehensive, simple and scientifically sound metrics to measure NPI through a standardized calculation to quantify losses and gains. However, biodiversity has no single currency, and when RTQMM launched its NPI goal, no single methodology was deemed appropriate in the Rio Tinto context. To test different NPI calculation methodologies, the process required the development of a set of appropriate currencies (metrics) for each group of biodiversity values whether they are threatened species, rare habitats or non-timber forest products. Different measurement methods and metrics were tested against each biodiversity feature of the area.

Two biodiversity features were identified and prioritized; habitats – all forest, including littoral forest and its sub-types and species- all High Priority terrestrial species. Two metrics (currencies) were agreed upon – Quality Hectares (QH) and Units of Global Distribution (UD). Quality Hectares are today Rio Tinto’s current metric for tracking progress towards the NPI biodiversity target at global and site levels.

5. Social License to Operate

In addition to RTQMM’s legal license and permits granted by the Government of Madagascar, RTQMM must also earn and maintain its social license. Social license to operate (SLO) refers to the level of acceptance or approval by local communities and stakeholders of a company. RTQMM has made investments of over $15 million to date made in environmental management. Extensive research and experimentation has been conducted since the early 1990’s, with a full-time, on the ground environmental and conservation team established in 1996. Numerous partnerships have been established with Malagasy and international universities, research institutes, and partner organizations such as Kew Gardens, Birdlife International, Conservation International, Flora and Fauna International and Missouri Botanical Gardens. In 2001, a number of these internationally renowned biodiversity experts founded an independent advisory committee (the Biodiversity Committee) at RTQMM’s initiative to review its environment strategy and field level conservation activities. This led to a strong recognition that long-term achievement is dependent on RTQMM’s ability to understand and manage issues related to the environment and community, and has contributed to RTQMM’s commitment to achieving a Net Positive Impact (NPI) on biodiversity.

Figure 5: Key elements of Social License to Operate

- **Institutionalized trust**: stakeholders perceive company to have enduring regard for their interests and reciprocate.
- **Socio-political legitimacy**: stakeholders perceive company to respect culture and customs, meeting their expectations regarding its role in society, and act fairly.
- **Interactional trust**: stakeholders perceive company to listen, respond, keep promises, engages in dialogue and exhibits reciprocity.
- **Economic legitimacy**: stakeholders perceive company to offer a net economic benefit.
company and its operations at a point in time. SLO is an unspoken understanding between a company and communities based on a mutual agreement of shared values and mutually agreed rights, responsibilities and benefits. SLO is dynamic, as community and stakeholder perceptions can change over time for different reasons. It is thus granted by communities and stakeholders but revocable.

The loss of RTQMM’s social license, even in the presence of legal license, can negatively affect operations at Mandena and damage RTQMM’s reputation. For RTQMM to achieve and maintain its SLO, communities and stakeholders must feel that RTQMM is listening to, hearing and understanding their issues. It is for this reason that SLO is based on direct community and stakeholder engagement and dialogue to build and maintain community trust. Mitigation measures must incorporate social license within RTQMM’s risk management by identifying clear mitigating strategies.

III. Analyzing Business Drivers
A. External Analysis: Stakeholder Engagement and Dialogue
1. Understanding the Stakeholder Context
a. History of Community Dialogue and Public Consultation

In planning and developing the mining project, RTQMM took significant steps to consult with the general public. Public consultations were widely held with interested and impacted parties at all levels (local, regional, national and international) beginning in 1998. The consultations were aimed at gathering knowledge and opinions of key stakeholders, including local communities, civil society, regional and national authorities, and international technical and financial actors. This process was a means for RTQMM to initiate permanent and open dialogue, build constituency trust, and foster mutual respect with its principle stakeholders. It also allowed RTQMM to explain the future mining project and anticipated changes it would bring. During this process a shared vision of the project was developed between RTQMM and local communities that has become the basis for RTQMM’s social license to operate.

Information collected during the consultations was used to prepare RTQMM’s Social and Environmental Impact Assessment (SEIA) and define its terms of reference, which was submitted to the Government of Madagascar for approval of Mandena’s environmental permit in 2001. RTQMM’s social and environmental commitments and obligations were largely captured in the Environmental Management Plan (EMP). Natural resource rights, responsibilities, benefits and regulations were included in a Malagasy social contract, known as a dina, signed in 2002, by the founding members comprised of local authorities (mayors), the regional forestry service and RTQMM. Traditional and practical knowledge obtained through the consultations influenced decisions and provided solutions during the project’s development. Major components of the project were modified and redesigned to minimize impacts due to information gathered. The originally envisaged location of the Ehoala Port and haul roads were revised. Other design changes addressed many social and environmental concerns, and enabled the project to become more compatible with the socio-economic development aspirations of the region.

b. Managing Expectations

Stakeholder expectations for local and national benefits from the mining project dominated the consultation process. Establishing realistic expectations and managing them effectively has been a persistent and significant challenge of RTQMM’s. No roadmap previously existed as a reference for RTQMM under the social conditions prevailing in Anosy. Local communities, at the same time had no previous exposure to the positive and negative impacts of an industrial mine, which was compounded by Anosy region’s isolation. When RTQMM and World Bank investment decisions8 were announced in 2005, they represented the first significant economic investment for Madagascar in several decades. This investment decision was quickly palpable in Anosy and carried an exceptional symbolic importance for the local population. As a direct result, local expectations soared when RTQMM began construction of Mandena and additional mine-related infrastructure in 2006.

c. Construction phase followed by political turmoil

RTQMM’s construction phase generated an unprecedented level of economic activity and brought far-reaching change to the isolated and underdeveloped Anosy region. RTQMM focused its approach on addressing the immediate impacts of the project, such that positive impacts and economic spin-offs would be maximized, and any negative impacts would be mitigated. Highlights of the construction phase included:

- Creation of approximately 4,500 jobs and up to three times as much induced employment, with a priority for local candidates, resulting in immediate skills training and capacity development.
- Significant efforts to manage inflation and mitigate in-migration, which included a poverty monitoring methodology and tracking system and extensive communication campaigns to deter migration by job seekers from other regions in Madagascar to Anosy.

8 RTQMM announced its decision to invest $775 million in the project (of which approximately $585 million would be spent in Madagascar) and the World Bank simultaneously approved a credit to Madagascar which included a $35 million contribution to construction of the Ehoala Port (Source: 2006 Panel Report).
• Extensive community-based programs of awareness, information and prevention to address the risks of STDs, especially HIV/AIDS.

• Successful resettlement of 123 households affected by land acquisition due to quarry operations, with stringent adherence to World Bank safeguards for public utility lands that included compensation and resettlement guidelines and obligations.

Overall, the construction phase was viewed as a success. However, when construction activities ended, the boom subsided, and production began in 2009, stakeholder expectations remained high. RTQMM support quickly eroded as palpable benefits diminished; contractors’ left, demands for goods and services declined and temporary positions held by many of the local population ended.

Unfortunately, this period also coincided with the political coup staged in 2009 which suddenly left Madagascar in a political vacuum. This new political context undermined the already limited legal and institutional capacity of RTQMM’s local government partners. In addition, infrastructure projects co-sponsored by international development organisations, such the World Bank PIC project, were put on hold. Without international and local technical and financial partners, RTQMM was faced with increasing pressure to meet expectations of the local population on its own.

d. Blockades and Protests

Circumstances led to a series of protests and blockades, which RTQMM experienced between 2006 - 2013 (see Table 4 below for a history of RTQMM’s blockades). Public discontent stemmed mainly from RTQMM’s inability to meet expectations of the local population. Demands for increased local employment, local sourcing and improved regional infrastructure have been widespread and continuous. Effects of some

<table>
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<tr>
<th>Timeline</th>
<th>Cause</th>
<th>Mitigation Measures</th>
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| 2006     | Compensation for relocation and income losses due to Port and Quarry (DUP resettlement) | • Reinforcement of dialogue with the regional government  
• Compensation of land where claimants had previously been unable to demonstrate their traditional rights based on land utilization |
| February 2007 | Quarry exploitation and use of dynamite | • Initiation of traditional dialogue process to recognize disturbances and provide an apology (Fomba)  
• Implementation of stringent safety/security measures |
| 2007     | Construction of the weir | • Payment of indemnities for fishing losses (losses between August 2007-February 2008) |
| 2009     | Construction of the weir | • Payment of second round of indemnities for fishing losses (6 months of losses) |
| October 2010 | Local employment, local sourcing (ex: meat products for catering company), improved regional infrastructure (ex: electricity) | • Recruitment of 75 local employees  
• Protocol for construction of an abattoir |
| March 2011 | Land security of mining concession | • Suspension of process to secure access to the land process  
• Initiation of a dialogue process that was unsuccessful |
| October 2011 | Weir impact on agricultural lands (Sakazazy and Andranokano) | • Engagement of mediator to address land compensation issues based on impact of weir  
• Conflict Prevention Strategic analysis  
• Kadaha and Focus Group (Government-RTQMM-Civil Society) |
| January 2013 | Local recruitment and employment opportunities, compensation claims, loss of land and availability and access to natural resources. | • Direct and continual dialogue with all communities directly impacted by the mine to better understand issues and develop community partnerships and agreements based on mutual benefits. |
mining-related infrastructure, such as the weir, that was constructed to prevent salt water intrusion into the lagoon system from where RTQMM pumps water used in the mineral separation process have been a persistent source of complaints. Compensation packages for loss of land and livelihoods provided to directly impacted communities were frequently contested.

**e. RTQMM response to public discontent**

RTQMM responded to each blockade with a series of mitigation measures. Following the succession of blockades, RTQMM responded with two significant initiatives in 2011; (1) a strategic mediation process, recommended by the National Mediation Office; and (2) a conflict prevention analysis to improve dialogue, foster good governance and build wider stakeholder support. A tripartite committee (Focus Group) was formed, bringing together Government (represented by the Chef de Region), civil society (represented by the President of the Civil Society Platform) and the private sector (represented by the President of RTQMM), to allow roles and responsibilities of the three institutions to be more clearly defined and communicated.

At the same time, RTQMM introduced a community engagement initiative to improve dialogue and address misconceptions at the local and district level. The initiative was in the form of Kadaha, which signifies dialogue and action in the local Antanosy dialect. Kadaha is traditionally employed by local communities to discuss and exchange around a common subject in order to find a solution and collectively determine a plan of action. RTQMM rolled out the Kadaha initiative in three phases throughout 2012.

The first phase consisted of 54 local consultations held through focus groups with participation of 758 people, representing numerous key stakeholders, including civil society, local authorities, notables and religious leaders, and representatives of RTQMM’s nine priority communes. The second phase then served to connect local stakeholder representatives who had participated in the focus groups in active dialogue with the tripartite committee (Focus Group), through the Kadaha Be (Big Kadaha) that was held on March 12, 2012 in Fort Dauphin in the presence of the Prime Minister. A key output of the Kadaha Be process was the development of an action plan linked to five themes (Human Development, Good Governance, Security, Dialogue, Public-Private Partnerships) intended to address outcomes and recommendations of the consultative process. The third phase was to solicit community feedback on the outcomes and solutions defined during the Kahada Be. The Kadaha Tours were organized in two of RTQMM’s nine implicated communes and consisted of eleven sessions held with 192 people during the month of December 2012.

Despite these efforts, another road blockade was staged on January 9, 2013, which halted mining production for four days and resulted in approximately $US 500,000 in lost revenue per day. The 2013 roadblock demonstrated once again the fragility of RTQMM’s SLO and pointed to RTQMM’s dialogue and community engagement approach as ineffective in building trust and confidence with local communities.
2. Conducting a comprehensive analysis

In light of the January 2013 roadblock (the last to date), RTQMM undertook a comprehensive analytical process to understand why efforts had failed and what was needed to regain and maintain the trust and confidence of its host communities. The analysis process and refined adaptive management approach involved examination of the following key areas:

a. Kadaha analysis

A thorough analysis of the Kadaha initiative was lead by the CSD team, with support from external facilitators, to understand why the objective of building community trust had not been achieved through the engagement process. Results of the reflection exercise revealed that kadaha, a traditional concept, had lost its genuine spirit, true definition and cultural meaning during the process. The action plan that was the outcome of the Kadaha Be was viewed as superficial and did not respond to field level expectations of concrete tangible actions in response to the focus group discussions. According to participants, dialogue between communities and leaders of the Focus Group during the Kadaha Tours was perceived as one-way speeches. Communities expressed a desire for real dialogue and exchange with Focus Group leaders on issues that concern them. The key recommendations from this reflection process are outlined in Table 5.

1. Implement the Kadaha process exclusively at the community level
   - Bring process back to its roots to create trust and confidence
   - Refocus efforts and place high priority on working directly with all impacted communities
   - Create short and medium term actions plans to respond to what is important to communities. Ensure better coordination of the implementation of activities between all stakeholders

2. Ensure community engagement, leadership and ownership
   - Link dialogue and consultations to concrete actions
   - Improve process for local community empowerment and ownership through social mobilization, dialogue and negotiation training
   - Undertake leadership training to create greater independence in technical and financial implementation of activities by community associations
   - Engage local communal leaders to better align support to communal and village development plans

3. Improve social cohesion through transparent communication
   - Feature radio programs on “hot topics” such as land tenure and property rights
   - Create question/answer listening program to provide accurate, balanced and neutral information
   - Ensure transparent information to decrease rumors and community dividers

b. Analysis of issues and risks linked to stakeholder priorities and concerns

To understand community priorities and ensure a comprehensive analysis of issues important to local stakeholders, RTQMM reviewed its community complaints in the context of operations. As RTQMM transitioned through its different phases (exploration and planning, construction and production), RTQMM recognized different approaches needed to be developed, applied and adjusted in response to changing business drivers, risks and opportunities.

This analysis showed that the majority of community complaints are linked to land and resource (aquatic, forest, agriculture) related issues as shown in Figure 5. This demonstrated that linkages between operations, rehabilitation obligations, NPI biodiversity, and community use of land and natural resources had been inadequately aligned in addressing community concerns and expectations. This was fully assessed and has been subsequently readjusted within the CSP program orientations as detailed in this document.

c. Analysis of Community Dynamics and Characteristics

An analysis of community dynamics was also undertaken by reviewing RTQMM’s socio-environmental mitigation program, known as Integrated Development Program (PDI), developed in 2010 for a 3 year period to improve...
income generation by local communities. This analysis showed that an inadequate understanding of community dynamics and characteristics had resulted in inaccurate targeting of program participants. Initiatives inadvertently tended to favor more advantageous groups among the local population. Communities impacted by the mine tend to be more the more vulnerable population, who are typically landless households, and spend the majority of their time gathering forest products and working the land of others. They are more risk averse and therefore did have the time, interest, resources or knowledge to participate in PDI.

Other community stakeholder groups directly impacted by RTQMM’s operations, such as Sakasazy and Maromalala farmers and the Libanona fishermen, were not targeted beneficiaries of the program, creating a perception of inequity among some segments of the local population. Furthermore, an underlying perception emerged that RTQMM resources were being allocated to local implementing partners (NGOs) for their benefit rather than impacted communities.

3. Applying key lessons learned to rebuild stakeholder trust and confidence

Results of the extended and comprehensive stakeholder analysis process (which is further documented in a series of Stocktaking Analyses in the Annex section) have allowed RTQMM to apply lessons learned in reorienting its approach to engaging with communities through continual dialogue based on partnership, mutual benefits, and a more transparent, inclusive and interactive communication and information process. These key learnings have shaped RTQMM’s approach to stakeholder engagement and dialogue. The objectives and results that are defined in this CSP plan reflect this refined approach.

Key lessons learned for effective stakeholder engagement and dialogue:

- Link community engagement to joint responsibilities, mutual benefits and concrete actions, and not only dialogue.
- Listen and act (in a timely manner) in order to build and maintain trust and ensure effective management of expectations. Actions speak louder than words, so do not make promises.
- Strengthen community ownership by engaging in direct and permanent dialogue with impacted communities.
- Apply a rights-based approach in recognition and respect of differing community rights.
• Increase understanding of community dynamics and characteristics for more relevant development programming and accurate targeting.
• Ensure a full understanding of the stakeholder landscape and legal framework of the operating context to better define respective roles and responsibilities of various stakeholders.
• Adopt a proactive approach to information gathering, communication and dialogue to ensure effective grievance mechanisms.

The results of the application of these lessons learned through a proactive dialogue process is demonstrated in Figure 6.

B. Internal Analysis: Biodiversity and Community and Social Performance (CSP) Risks

1. CSP Strategic Risks – CSP Risk Evaluation

RTQMM uses risk evaluation as a concurrent framework to identify potential threats and opportunities to its business objectives. Rio Tinto’s Risk Policy describes risk as “an uncertain event that, if it occurs, will affect achievement of one or more objectives.” This definition takes into account negative risks (threats) and positive risks (opportunities) (Flynn, Vergara). Risk evaluation typically considers safety, environmental, financial and community risks to the business. Once identified, a risk can be eliminated by changing the design or be mitigated through controls.

All operations and projects must implement a robust risk management system as a RT requirement. The CSP standard asserts a Social Risk Assessment must be maintained at operations and undertaken at project gateways, or as necessary due to changed business circumstances. The principles of the risk analysis and management processes are set out in Rio Tinto’s risk policy (Annex 1). RTQMM’s CSD team reviews and updates its community risk register every six months.

Table 6: 2013 Land Risk Analysis - Natural Resources

<table>
<thead>
<tr>
<th>Risks</th>
<th>Causes (Triggers/Indicators)</th>
<th>Management Measures</th>
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<tbody>
<tr>
<td>NPI Biodiversity Targets may not be met</td>
<td>• Loss of unique flora or fauna&lt;br&gt;• Community encroachment on protected areas/offsets.&lt;br&gt;• Adverse impact (draw down) of operational water</td>
<td>• PA management and active species conservation and monitoring&lt;br&gt;• Integrated spatial approach engaging communities as environmental steward&lt;br&gt;• Review of NPI process by IUCN and International Biodiversity committee.</td>
</tr>
<tr>
<td>70% fast growing rehabilitation; 20% wetland rehabilitation target and 10% ecological restoration target may not be achieved</td>
<td>• Soil quality and availability&lt;br&gt;• Post mine topography not suitable for natural forest and wetlands&lt;br&gt;• Biomass used to replace induration layers is impermeable&lt;br&gt;• Topsoil availability&lt;br&gt;• Community pressures on natural resource base, such as fire within mining concession</td>
<td>• External advice on wetland topography rehabilitation.&lt;br&gt;• Align SEMP and obtain regulatory approval&lt;br&gt;• Monitor climate change&lt;br&gt;• Stakeholder engagement on choice of species to plant. Align SEMP and obtain regulatory approval&lt;br&gt;• Establishment of firebreak</td>
</tr>
<tr>
<td>Communities may not have adequate access and availability to natural resources (e.g. wood, grass, reeds, grazing) in operational areas and offset reforestation site</td>
<td>• Changes to mining plan&lt;br&gt;• Long restoration time&lt;br&gt;• Poverty in areas surrounding mining, reliant on natural resources for livelihoods.&lt;br&gt;• Lack of government enforcement allowing open access to resources.&lt;br&gt;• Population growth and pressure from FD.&lt;br&gt;• Cultural uses of Mahampy.&lt;br&gt;• Lack of land for agriculture.&lt;br&gt;• Failure of fast growing plantations on land provided to communities.</td>
<td>• Effective and regular communication of land use management plan&lt;br&gt;• Renew DINA and community ownership&lt;br&gt;• Integrated approach linking environment, natural resources use and communities&lt;br&gt;• Understand utilisation of timber and non-timber forest products to respond to communities needs.</td>
</tr>
</tbody>
</table>
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2016 - 2021

Table 7: 2013 Land Risk Analyses - Communities

<table>
<thead>
<tr>
<th>Risks</th>
<th>Causes (Triggers/Indicators)</th>
<th>Risk Management Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to mining reserves and resources may be impacted by</td>
<td>• Partial surface rights to Mandena pending agreement with occupants and resource users</td>
<td>• Secure agreements with traditional occupants and resource users</td>
</tr>
<tr>
<td>traditional communities land rights in the mining perimeters</td>
<td>as per mining code</td>
<td>• Assess, identify and secure future land access rights in Ste Luce and Petriky&lt;br&gt;</td>
</tr>
<tr>
<td></td>
<td>• Communities claim ancestral rights to land in private or public domain</td>
<td>• Obtain long term surface rights from government for public private land in 3 mining sites&lt;br&gt;</td>
</tr>
<tr>
<td></td>
<td>• Traditional occupants with property rights may deny QMM access to surface rights for their land</td>
<td>• Negotiate separate land lease as required with occupants for access to traditional lands&lt;br&gt;</td>
</tr>
<tr>
<td>Community claims for compensation may result in additional costs or</td>
<td>• Inconsistency in application of Malagasy Land laws&lt;br&gt;</td>
<td>• Assess application of compensation process for fairness, equitability and transparency.</td>
</tr>
<tr>
<td>community dissatisfaction</td>
<td>• Unrealistic compensation claims by communities</td>
<td>• Liaise with Chamber of Mines to address legal inconsistencies</td>
</tr>
<tr>
<td>Access to cultural heritage sites by communities may be</td>
<td>• Lack of access to grave sites from mining operations&lt;br&gt;</td>
<td>• Feasibility study for displacing graves/tombs&lt;br&gt;</td>
</tr>
<tr>
<td>restricted by mining</td>
<td>• Some sites may be isolated by mining</td>
<td>• Negotiations with families on displacement&lt;br&gt;</td>
</tr>
</tbody>
</table>

All class IV risks are reported to Rio Tinto Diamonds and Mineral groups at regular intervals.

2. Land Risk Analysis: Natural Resources and Communities

In July 2013, RT QMM undertook an interdepartmental land and community risk analysis facilitated by an accredited RT Risk Facilitator. Risks associated with RT’s Land Use Management Plan (LUMP) were identified and evaluated. Outcomes of the analysis revealed RT QMM’s exposure to several risks linked to biodiversity, ecosystems services, natural resource management, and communities land and resources rights with Environment and Communities accounting for 90% (45% respectively) of Class IV and III land risks that are highlighted in Table 6 and 7. This aligned with the external stakeholders analysis and clearly demonstrated the need for a greater focus on the interface between operations, land, natural resources, biodiversity, and communities to maintain RTQMM legal license to operate and secure investments.

3. Interdepartmental and Intradepartmental Collaboration

Land, natural resources and community risks require mitigation across all levels of RTQMM by mainstreaming communities’ consideration and investments within all RTQMM business departments. Efforts are being made to ensure RTQMM strategic communities investments are linked with business operations (Environment, Human Resources, Security, Procurement, Mine Planning and Operations) and supported by all employees, with a strong internal commitment at all levels and included in the accountability and engagement across the business. This is in recognition that effective CSP results cannot be delivered exclusively by the CSD team alone, and that RTQMM’s legal environment and social license to operate needs is the responsibility of all employees.

In order to foster interdepartmental collaboration to maintain RTQMM legal license to operate, the CSD team is promoting in-reach – working to change the behaviors and attitudes of employees across the full spectrum of the workforce – in acknowledgement that mutual trust and engagement can only be secured by demonstrated behaviors. Participation in a local induction course providing information of the local context is an important element of in-reach activities. Ultimately, in-reach involves employees from across the business tapping their respective skills and experience to draw business and community activities together for mutually beneficial outcomes (Harvey 2013).

This sort of interdepartmental integration provides additional opportunities to increase the effectiveness of CI through a shared approach. It allows increased information sharing for better-informed decisions, monitoring platforms, and orchestrated commitments to shared solutions, while leveraging resources, technical skills and capacity. Efforts have been made to ensure co-ownership of common business targets and objectives and specifically ensure these targets are embedded in Biodiversity and CSP strategic planning. Examples of cross department integration are highlighted in Table 8.
<table>
<thead>
<tr>
<th>Integration across departments</th>
<th>Areas of collaboration</th>
<th>Business targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communities, Human Resources, Ehoala Port</td>
<td>Employment: Collaboration in support to MERA (Anosy Employment Agency)</td>
<td>Direct and indirect employment maintained and created by RTQMM and Ehoala Port</td>
</tr>
<tr>
<td>Communities, Operations, Procurement, Environment, Human Resources</td>
<td>Local Content: Development of micro and small enterprises to provide services to RTQMM and optimize local employment and economic development Active ‘buy in’ to coaching of local service providers and fostering their business development</td>
<td>Increase number of contracts with small and medium size businesses responding to mining services and local procurement needs</td>
</tr>
<tr>
<td>Communities, Ehoala Port</td>
<td>Regional Economic Development: Ehoala Port Investment Zone – Member of Communication Committee Providing opportunities for employment within the investment zone</td>
<td>Port Investment Zone as “motor” for regional development</td>
</tr>
<tr>
<td>Communities, Human Resources</td>
<td>Education and Training: Technical and professional training to meet business needs in the short and medium term Scholarship program to improve academic success for current and future generations Clairefontaine – Linking French education opportunities for RTQMM and local communities</td>
<td>Professional and technical skills available in response to RTQMM and local employment needs Success rate of all scholarship beneficiaries Malagasy and French literacy rates improved</td>
</tr>
<tr>
<td>Communities, HSE, and Operations</td>
<td>Legal Obligations: Community awareness raising campaigns concerning health and safety (HIV – AIDs, malaria, radioactivity, crocodiles, et al) HSE mentoring and coaching for local service providers</td>
<td>Zero harm by choice</td>
</tr>
</tbody>
</table>
IV. Defining Business Drivers: Strategic Objectives, Results and Performance Indicators

RTQMM has developed the ensuing Biodiversity and CSP results framework for the upcoming five year period (2016-2021) in alignment with legal, social and environmental (SEMP) obligations, community and social performance risks, and the business and community context as detailed above. RTQMM’s engagement process with local stakeholders and communities and the outcomes generated through community planning and dialogue has directed priority areas for investment, in alignment with RTQMM business drivers and key objectives.

The detailed results framework and corresponding indicators can be found in Annex A.

RTQMM’s results framework is based on four strategic objectives (SO) which are summarized in the sections below through 1) an introduction to the context and evolution of the approach; 2) a description of each respective result and; 3) a list of sub-results and SEMP indicators. The four strategic objectives all contribute to RTQMM’s achievement of the global purpose and goal.

**Global Purpose:** Ensure legal obligations and social license to operate to secure investment, growth, reputation and legacy

**Global Goal:** Attain community respect, trust and confidence through a dynamic partnership based on mutual benefits and engagement

**Transversal Strategic Objective:** Dialogue and Stakeholder Engagement

**Strategic Objective 1:** Biodiversity, Ecosystems and Natural Resource Management

**Strategic Objective 2:** Impact Management through Community Partnerships

**Strategic Objective 3:** Local Economic and Competency Development
A. Transversal Strategic Objective: Dialogue and Stakeholder Engagement

Transversal Strategic Objective: Equitable and permanent dialogue with communities and stakeholders to maintain mutual benefits and commitments is established.

1. Context and Evolution of Approach

The overall focus of RTQMM's engagement with communities and stakeholders is to manage risk and deliver long-term mutual value and benefits by aligning RTQMM's business goals and competencies with the priorities of local communities and stakeholders. For RTQMM, community and stakeholder engagement means proactive listening to concerns and suggestions, meaningful consideration of ways to mutually accommodate various interests, and prompt response and delivery on tangible actions. This is in recognition that the delivery on tangible benefits and results most significantly influences trust between RTQMM and its host communities and is a key element to maintaining a social license to operate. Securing widespread community support from host communities over the long-term comes down to how much communities' trust RTQMM. Trust can be built and eroded in many ways, but RTQMM has learned the basis is consistent, genuine and reliable dialogue and engagement, coupled with response and action. Building partnerships with communities is a key element in RTQMM's approach to engaging with communities and stakeholders.

As such, RTQMM has adopted inclusive and interactive approaches to building understanding and mutual trust with its host communities by realigning approaches and methodologies for community engagement. To ensure genuine engagement and permanent dialogue, RTQMM has adopted a participative community partnership approach based on joint responsibilities, mutual benefits and concrete actions. As illustrated in Figure 9, this necessitates permanent dialogue and direct and frequent interaction between RTQMM and community partners, with support upon request from technical partners to reinforce ownership and engagement.

RTQMM's community partnership approach allows RTQMM to be in direct and frequent contact with impacted communities. This approach ensures accountability by all actors, allows for increased dialogue, and promotes community responsibility for their own development. Equally important, proactive, permanent dialogue based on open and transparent communication (further discussed under SO 2: Impact Management through Community Partnerships) allows concerns to surface, be identified and addressed at an early stage. In this way, potential sources of conflict are resolved before they become official complaints or grievances.

“As the project has transitioned into its operational phase, RTQMM has reemphasized the importance of community engagement that is based on joint responsibilities and benefits, linked to concrete actions, and coupled with constant, open and transparent dialogue and communication.”
RTQMM's dialogue and engagement cross-cutting SO, that is transversal across all strategic objectives, encompasses the following four results: 1) Appropriate spaces for equitable dialogue based on mutual benefits are functional; 2) Reliable and transparent information is available and accessible to all stakeholders; 3) Governance principles and values are mutually respected by all stakeholders; and 4) Balance between an industrial business and local cultural values are understood and maintained.

Lessons Learned and Best Practices
Dialogue and Stakeholder Engagement

- Dialogue processes must be based on specific issues, concerns and complaints and linked to mutual benefits and actions (such as land and natural resources management, enterprise development, and knowledge and skills training).
- Open and transparent information exchange is essential to cultivate and maintain positive relationships with communities and allow for the anticipation of potential conflicts.
- Collaborative community partnerships through agreements should be based on specific actions that are monitored, re-adjusted, and ensure continued mutual benefits for each party.

RTQMM is establishing mechanisms for regular, inclusive and constructive dialogue between the company and communities and stakeholders. To reinforce information sharing mechanisms, RTQMM will convene multi-stakeholder meetings and dialogue platforms, in which all stakeholders (regional governmental and local authorities, local civil society, media, private sector actors, community representatives from RTQMM’s nine targeted communes, and technical and financial partners) can participate.

Internally, RTQMM is in the process of establishing an informal Management Dialogue Platform to foster open, transparent and interactive dialogue between members of RTQMM’s Senior Leadership Team (SLT) and employees. Change agents are being remobilized to convey key information and reinforce peer-to-peer communication across all departments. These efforts are intended to reinforce mutual trust and confidence within RTQMM.

Sub-Results for TR 1.1:

- STR 1.1.1: Mutual rights and reputational respect is maintained with national and regional stakeholders.
- STR 1.1.2: Collaboration with technical and financial partners and civil society platforms are promoted and effective.
- STR 1.1.3: Mechanisms to reinforce community considerations across all departments within RTQMM are in-place and functional.
- STR 1.1.4: Community and stakeholder dialogue and transparent information platforms to address concerns and complaints are effective.

2. Description of Results and Outcomes

Transversal Result 1: Appropriate spaces for equitable dialogue based on mutual benefits are functional

Proactive, continuous and open dialogue, communication and information exchange is the basis for cultivating and maintaining positive relationships and mutual trust with communities and stakeholders. Key is face-to-face interaction and dialogue, and the subsequent creation of a favorable climate, both internally and externally, where differences can be expressed, explained and communicated, tensions reduced, and a shared understanding built. If stakeholders feel an open, transparent and safe area exists to express themselves, they are more likely to supply information willingly.
Transversal Result 2: Reliable and transparent information is available and accessible to all stakeholders

Lessons learned have reinforced the need for improved and effective information systems. Anticipation of potential conflicts can be achieved by understanding stakeholders’ expectations vis-à-vis RTQMM through issue based dialogue rather than grievance based. In order for this to take place, information and communication must be collected and managed proactively, allowing the anticipation of issues before they arise and their effective treatment before an official complaint or grievance can materialize. As depicted in Figure 9, information needs to be collected from various sources and then consolidated on an ongoing basis to clearly understand the overall tendencies and identify any emerging issues. Special attention should be given to mining infrastructures and impacts that have resulted in past complaints and grievances. Depending on the issue, stakeholder engagement plans based on a practical problem solving approach, are put into place to dialogue and work through a win-win solution with concerned stakeholders.

RTQMM’s information management system is being formalized with support from BoréalisiMS(TM which includes 12 social and environmental modules* that are connected to provide an integrated solution. This system allows for monitoring and measuring of social and environmental impacts and performance targets. Reports and key performance indicators (KPIs) are provided to users to demonstrate transparency and assist in the measurement of the efficiency and impact of an initiative. Elements of this system also encompass dynamic decision-making tools that enable RTQMM to assess various potential risks that may arise and treat them before they become an official complaint or grievance. (ref section E for additional information)
• Pourcentage de populations touchées par les différents canaux d’accès à l’information.

• Informations clés sur QMM en particulier et la région en général diffusées et accessibles via les médias y compris l’Internet/mobile.

**Transversal Result 3: Governance principles and values are mutually respected by all stakeholders**

Good governance is essential for achieving sustainable development outcomes. When governance is strong, an extractive industry such as RTQMM can generate large revenues, which in turn foster economic growth and reduce poverty. When governance is weak and/or corruption and rent-seeking are rampant, poverty, conflict and further corruption may result, generating the so called “resource curse.”

Building and promoting good governance is a centerpiece of RTQMM’s strategic framework. RTQMM supports a self-governing approach to foster good governance, in which communities and stakeholders are mobilized and motivated to take responsibility for their self-development. This approach puts the active participation of targeted communities and stakeholders at the center of operations, ensuring that they are involved not only in the implementation of activities, but also setting objectives, evaluating outputs, and celebrating successes.

Multi-stakeholder platforms, (an example of which is the CRD further discussed under Section #) convening stakeholders from government, civil society and private sector, are another essential element to fostering good governance. As depicted in Figure 10, RTQMM believes good governance is built and strengthened when effective and equitable dialogue and a balanced relationship between tripartite stakeholders—government, civil society and private sector—is achieved. The relationship should respect the rights of each party, be legal, transparent, equitable and sustainable. RTQMM has adopted these five key governing principles and values in all its work as essential elements of good governance.

While this intermediary result promotes good governance explicitly and directly, activities undertaken under other strategic objectives will also serve to advance good governance.

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**Figure 11: Effective, Equitable and Balanced Dialogue**

**RTQMM’s governing principles and values:**

- Rights of each party
- Legal
- Transparent
- Equitable
- Sustainable
Sub-Results for TR 1.3:

STR 1.3.1: Good governance within community based and Civil Society Organizations (CSO) is strengthened.

STR 1.3.2: Governance in key governmental technical services and communes is supported and enhanced.

STR 1.3.3: Mechanisms to strengthen networking/liaison between Government, private sector and civil society organizations are in place and functional.

Transversal Result 4: Balance between an industrial business and local cultural values are understood and maintained

RT’s The way we work provides a framework of how RT conducts business across its global operations. RT values of respect, integrity, teamwork and accountability, highlighted in Table 9, guide the company and all its employees, contractors, consultants, agents and suppliers in their work and behavior.

Other policies and standards include RT’s Cultural Heritage guide, which provides guidance on how cultural heritage values should be understood and how potential impacts can be managed effectively. This includes commitments to respecting human rights. The CSP standard provides guidance which RTQMM adheres to in terms of managing documented cultural heritage values and assets.

In RTQMM’s operations in Madagascar, culture and heritage play a fundamental role in community engagement and add significant value to the business. Understanding of the fundamental importance of land to Malagasy people is critical. Ensuring community access to sacred sites and places of heritage value, including ancestral burial grounds, is a legal obligation of RTQMM’s documented in the SEMP. Protecting and managing cultural heritage assets and values jointly with communities contributes to overall quality of relationships and ensures mutual benefits. Greater attention to cultural heritage provides a foundation of confidence and trust and allows RTQMM to be more effective in its community engagement.

Sub-Results for TR 1.4:

STR 1.4.1: Intercultural values (local and industrial) are known and respected.

STR 1.4.2: Community-based organizations and traditional leaders are mobilized as an engine of change.

STR 1.4.3: Community access to sacred sites and cultural practices in the mining areas are assured.

B. Strategic Objective 1: Biodiversity, Ecosystems and Natural Resource Management

Objective 1: Biodiversity conservation, ecosystem services, and access and availability to natural resources by communities impacted by the mine are ensured

1. Context and Evolution of Approach

Over the last decade, RT has been reorienting its management approach to NPI biodiversity to allow for opportunities to build business value and manage business risks. A review of RTQMM’s biodiversity strategy demonstrates that most biodiversity gains in Madagascar have been made in areas under the greatest company control, notably the conservation zones/protected areas at Mandena. The time taken to initiate effective on-the-ground conservation interventions at RTQMM identified sites has made it much harder to deliver anticipated conservation gains, as illustrated Table 9 highlighting key achievements and challenges.

Respect: We recognize and consider the views of others and treat them as we would want to be treated.

- Safety and Health: We believe all fatalities, injuries and occupational illnesses are preventable. We commit to the goal of everyone going home safe and healthy every day.
- Employment and Inclusion: We believe all employees have the right to a fair and inclusive working environment of which they are proud to be a part.
- Human Rights: We respect human rights and commit to avoid human rights harm.
- Data privacy: We respect each person’s privacy. We comply with all laws in the collection, use and protection of personal information in connection with our business.

Integrity: We act fairly, honestly and consistently in what we say and do and we speak out when necessary.

- Conflicts of Interest: We ensure our personal activities and interests do not conflict with our responsibilities at Rio Tinto.
- Fair competition: We compete ethically and lawfully in all our activities.
- Bribery and corruption: We do not commit, or become involved in, bribery or corruption of any form.
- Confidential information and insider trading: We protect our shareholders and ourselves by responsibly managing our own and third parties’ confidential information. We never use it for personal advantage.

Teamwork: We work together and learn from each other to achieve our goals.

- Host communities: We develop strong and lasting relationships with our local and regional host communities based on respect, a desire to learn and mutual benefit.
- Relations with government, international organizations and civil society: Relations with government, international organizations and civil society
- Transparent communication: We build trust by communicating openly and honestly.

Accountability: We take responsibility for our actions and hold others to account for theirs.

- Environment: We are committed to protecting the environmental values of the regions where we operate and maintaining good product stewardship for the long term.
- Intellectual property: By protecting our intellectual property and respecting that of others, we keep our competitive advantage.
- Company property and records: We use company property, financial and electronic resources to conduct company business and not for personal gain or non-authorized use.

Table 9: Rio Tinto values

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Biodiversity Action Plan (BAP) with outcomes to achieve by mine closure</td>
<td>Most biodiversity gains have been made in areas under greatest company control (Mandena avoidance zone)</td>
</tr>
<tr>
<td>Biological research database required for species management decisions</td>
<td>Restoration not yet fully assured for post-mining conditions</td>
</tr>
<tr>
<td>List of 269 flora and fauna priority species and corresponding actions and monitoring plan for critical species</td>
<td>Delays starting implementation at offset sites greatly increases effort required to meet NPI</td>
</tr>
<tr>
<td>Designation of conservation zones/protected areas within 3 mining perimeters and offset sites</td>
<td>Access to ecosystem services (fuel wood, poles, reeds, etc.) is a key concern of local communities</td>
</tr>
<tr>
<td>QH and UD metrics and measurements in conservation zones and biodiversity offsets to develop NPI forecast</td>
<td>Significant risk of interruption to business continuity if community land and natural resources needs are not met</td>
</tr>
</tbody>
</table>
a. Reframed Interdependent Spatial Approach

Biodiversity conservation and protection is dependent on a number of interrelated factors that underpin the success of RT’s commitment to NPI on biodiversity and collectively influence the conservation and natural resources context. The capacity of conservation organizations, communities, and governments, and the success of enforcement measures, the existence of conservation plans, initiatives and protected areas in the surroundings, the state of knowledge of ecosystems and species, and the complexity of threats on biodiversity and the natural resource base, can all profoundly influence the success of any biodiversity mitigation, protection, enhancement/restoration or rehabilitation initiative that RTQMM operations develop or contribute to over the life of the mine.

Based on lessons learned (refer to Annex D: NPI and NRM Stocktaking analysis) RTQMM is developing a reframed approach that aligns the NPI Biodiversity commitment to RTQMM’s legal, environment and social obligations in recognition of the importance of ecosystem services, community land and resource rights, stewardship and management.

8 The reframed approach for achieving NPI is set out in detail in the updated RTQMM Biodiversity Action Plan (BAP) based on lessons learned to date. The plan has been reviewed by stakeholders, including the Biodiversity Committee.

The focus of RTQMM’s engagement will have a greater emphasis on creating shared, real value, by aligning the business goals and competencies with the priorities of local communities and stakeholders. Drawing on lessons learned, RTQMM is realigning an integrated spatial approach by targeting land, ecosystems, natural resources management and community stewardship that links inter-connected commitments and obligations within areas of direct responsibility, areas of interaction and areas of influence. As such, RTQMM has moved from a NPI mitigation hierarchy approach to an implementation hierarchy of interdependent environment and socio-economic elements required to achieve NPI as highlighted in Figure 12.

b. Elements of Interdependent Spatial Approach

Based on identified challenges, the interdependent spatial approach, detailed in the Biodiversity Action Plan (BAP) revised in 2015, targets the following elements and results as depicted in Figure 12.

Reforestation of fast-growing species and rehabilitation of wetlands inside and outside the mining concession: RTQMM is engaging local people to genuinely participate in forest rehabilitation and wetlands rehabilitation within the mining reserve to
contribute to an increased sense of ownership and respect for these areas during and after mine closure to ensure sustainable access and availability to natural resources management.

Integration of ecosystem services and natural resource management to achieve NPI goal and access and availability to natural resources and ecosystem services (fuel wood, poles, reeds, etc): RTQMM has integrated ecosystem services and natural resources management into the NPI goal while maintaining access and availability of natural resources for communities. Increased dialogue and interactions with the communities is enabling RTQMM to take into account the rights and needs of these communities to access the natural resources.

Community Based Protected Area Management: To limit impacts on habitats and biodiversity, RTQMM is integrating communities as environmental stewards of the conservation zones and offset sites (now both protected areas) and ensuring that buffer zones are managed sustainably, with all parties sharing responsibilities, risks and benefits. The dinas, a traditional and uniquely Malagasy social contract, is being reviewed based on mutually agreed rights, responsibilities, benefits and rules as concerns natural resources use. These measures are to serve to maintain the quality of these habitats, conserve species and preserve fragments of littoral forest and wetlands in line with the NPI Biodiversity goal.

Species Conservation and ecological monitoring to determine whether these management actions are effective in terms of achieving the desired NPI biodiversity goals: RTQMM is continuing to implement proactive species conservation and ecological monitoring plans to ensure there is no decline in priority species and habitats and to prevent the establishment of alien invasive species. Thresholds have been developed to determine when performance is inadequate. Failure to keep within acceptable thresholds will trigger a concrete response. Two metrics (or currencies) are being used are: (1) Quality Hectares (QH) and (2) Units of Global Distribution (UD). Quality Hectares is Rio Tinto’s current metric for tracking progress towards the NPI target at the global and site level.

Enhancement and ecological restoration: Littoral forest, a specific type of humid to sub-humid evergreen forest that grows on sandy soils, is the most important terrestrial habitat type in terms of its conservation value (Consiglio et al. 2006). The greatest biodiversity impact of RTQMM operations will be the loss of approximately 1,665 ha (3.5% of Madagascar’s remaining 47,900 ha of littoral forest) of littoral forest habitat as a result of mining and associated activities. As such, RTQMM committed in the SEMP to restore over 600ha of pristine...
over the last decade, research of littoral forest restoration has been conducted. The ultimate target is to deliver a model that would allow RTQMM to reach this target by mine closure that would require continued maintenance and monitoring.

Proactive role within area of influence in advocating for sustainable land use management that incorporates linkages to RTQMM biodiversity initiatives: RTQMM is strengthening the understanding of land, mining, and forest laws and codes to more effectively address issues related to land and natural resources. This broader spatial approach recognizes the extent of the social and environmental challenges which are arising as competing stakeholder interests clash over diminishing resources. RTQMM is currently partnering directly with the government authorities as well as other stakeholders through a Regional Environmental Platform. This will allow for better collaboration on complimentary conservation and development activities including environmental governance and education, renewable energy and reforestation initiatives, and improved resource production (agriculture and fisheries) in the larger landscape.

The challenge for RTQMM to deliver its commitment is linked to the ability to ensure direct, active engagement with host communities, with whom RTQMM has broad based social contracts and draws its social license. While the end goal of the NPI strategy is explicitly biodiversity preservation and enhancement, its success is implicitly linked to ensuring positive social and economic outcomes for local communities. Equally, RTQMM’s ability to maintain its SLO is dependent on securing continued community access to economically and culturally important natural resources. The separation of environmental and social objectives therefore runs the risk of succeeding in one domain at the expense of the other.

c. Biodiversity Boundaries of Responsibilities

Another challenge for RTQMM to deliver on its commitment has been to define the boundaries of responsibility within the area of environmental and social interactions as depicted Figure 14.

Within the environmental footprint of the mine, where biodiversity may be impacted by physical activities (effluents or emissions), the main responsibility is clearly with RTQMM. Within the wider social area of influence, however, the question of responsibility becomes more complex – and is shared with a combination of stakeholders that include communities, government, NGOs, civil society, and other private sector actors. An understanding of the interrelationships between ecosystems, the conservation context, and stakeholders is critical and needs to be more clearly defined and accepted by all parties. This will require a strong tripartite partnership between government, private sector (RTQMM) and civil society to ensure good governance and mutual accountabilities to sustainably manage biodiversity and natural resources. Mutual accountabilities must include respect of the social contract (dina) by communities and enforcement of rule of law by local government authorities.

Figure 14: Boundaries of responsibility for biodiversity and sustainable natural resource management

1. Within fence-line
   Full responsibility with potential for involvement of other parties

2. Wider concession
   Main responsibility with active involvement of other parties

3. Area of influence
   Supportive advocacy role but primary responsibility of other parties

4. Area of interactions
   Partial responsibility with active involvement of other parties

Note 1: This assumes that the concession area does not encompass any protected areas, which are the responsibility of the relevant government agency, conservation organization or community

Note 2: This refers to the wider area of environmental and social interactions, for example receiving waters for effluents, local communities that interact with the mine, etc.

Note 3: This refers to the advocacy role that Rio Tinto operations can play in regional environmental initiatives, business / biodiversity fora, etc.
RTQMM’s land and sustainable natural resource SO therefore encompasses results pertaining to each of the different levels of responsibility: (1) Biodiversity conservation within protected areas and offsets; 2) Availability and access to timber and non-timber products and wetlands for impacted communities; 3) Community land access and security within mining perimeter; and 4) Multi-stakeholder partnerships to mitigate natural resource loss. The interdependence between these different results are intended to ensure biodiversity conservation, ecosystem services and access and availability of natural resources for communities impacted by the mine.

**Lessons Learned and Best Practices**

**Local Economic and Competency Development**

- Recognize types of investments vary based on different business phases.
- Focus on economic investments that build local capacity and promote self-reliance, professionalism and business rigor.
- Emphasize sustainability and invest in longer time-horizons, with a focus on reinforced training, skills, capacity development and technical support.
- Take time to understand the local supply chain as well as the real constraints preventing the development of local business.
- Build and maintain trust in the procurement process; ensure timely payment and avoid applying complex terms and conditions for low risk services.
- Prioritize youth within community investment programming to maximize long-term benefits.
- Emphasize community engagement to build a sense of empowerment and ownership.

2. Description of Results and Outcomes

**Result 1.1 Sustainability of quality of biodiversity within Protected Areas and offsets is ensured** *(Note: This is within the fence line and is the full responsibility of RTQMM with potential involvement of other partners.)*

Protecting core areas of biodiversity is crucial to ensuring the continued conservation of forest ecosystems. Central to the NPI Biodiversity commitment, RTQMM established 624ha of conservation zones in the Mandena, Petriky and Ste Luce mining concessions. In Mandena, the core conservation zone is surrounded by a 200ha buffer zone, which contains a 117ha rehabilitation area consisting of former tree plantations and wetlands (niaouli) where usage rights may be exercised; and a 83ha ecological restoration area which, after mining, will increase the core zone’s surface area. The conservation zone totals 120 ha in Petriky and 274 ha in St, Luce.

In May 2015, the three conservation zones and buffer areas within each mining site were officially designated by the Government of Madagascar as IUCN Category 5 Protected Areas, and incorporated into Madagascar’s Protected Area System (SAPM) totalling 2095 ha, including the St. Luce offsets sites (S1,2,8,17). These protected areas are complemented with 4425 ha in offset sites at, Mahabo and Bemangidy that have also been designated as protected areas. Offset sites are in place to ensure gains in natural forest cover (expressed in Quality Hectares – QH) and the conservation of priority species (expressed in Global Distribution – UD). These protected areas allow for residual biodiversity impacts to be offset and ensure against any incomplete successes of the on-lease protected areas/conservation zones or restoration activities. These additional measures are to ensure that the project has a Net Positive Impact by mine closure (TBC 2010).

To re-establish connectivity between these habitats, ecological rehabilitation and restoration is being carried out. Areas adjacent to the conservation zones/protected areas will be ecologically restored with 30% indigenous species to ensure continued connectivity, and 70% fast growing species to provide a fuel source for local communities. As previously indicated, RTQMM is also continuing to implement proactive species conservation and ecological monitoring plans to prevent the establishment of alien invasive species and ensure there is no decline in priority species and habitats.

To maintain the quality of these habitats, conserve species and preserve fragments of littoral forest and wetlands in line with the NPI Biodiversity goal, RTQMM has developed a robust Biodiversity Action Plan (BAP) that is being implemented through an adaptive management process. RTQMM is integrating communities as environmental stewards of the protected areas/conservation zones and offset sites to ensure impacts on habitats and biodiversity are limited and buffer zones are managed sustainably, with all parties sharing responsibilities, risks and benefits. At the community level, dinas, a traditional and uniquely Malagasy social contract or agreement, founded upon mutual agreed rights, responsibilities, benefits and...
rules as concerns natural resources use, have been established as the basis of intervention between RTQMM and the host communities for each zone.

The dinas for each protected area/conservation zone are currently being revised through an inclusive, bottom-up approach that ensures full engagement of communities. The initial dinas, established in 2002, lacked adequate ownership and adherence by the local community. It is critical for Community Management Committees (COGEs) to serve as the primary body for community-based management of natural resources inside and outside the protected areas/conservation zones. As designated manager, RTQMM must work to strengthen COGE capacity and ensure the application of rules defined in the protected area management plan.

Sub-Results for R 1.1:

SR 1.1.1: Protected area management and species conservation plans are in place and effective.

SR 1.1.2: Organizational and technical capacity of protected area managers is effective.

SR 1.1.3: Research, restoration and ecological monitoring activities maintain quality and quantity of biodiversity in conservation zones.

Result 1.2 Availability and access by communities impacted by the mine to timber and non-timber products and wetlands are assured (Note: This is within the wider concession and is the main responsibility of RTQMM's with active involvement of other partners.)

Habitats in and around the mining concessions provide numerous natural resources to local communities. These include timber products, fuel wood and non-timber resources such as reeds and fibers. With an increased understanding that RTQMM's social license to operate is highly dependent on communities' permanent and equivalent access to these natural resources, RTQMM is promoting the linkage between land access, utilization and management in all of its business development and community initiatives.

Satisfying the broad range of anthropogenic and ecological demands on these areas requires a new approach to stewardship of the natural environment. RTQMM is reinforcing an integrated, multidisciplinary approach in which communities work is strongly linked to long-term operational planning and included in the accountability and engagement across the business unit. RTQMM is also promoting a participatory, adaptive and process-orientated approach in order to achieve the NPI goal by recognizing communities' rights to access natural resources.

Community-based natural resource user associations
have been formed in order to gain a comprehensive understanding of community needs and concerns from the bottom up regarding access and availability of natural resources both inside and outside of the mining lease. The knowledge gathered is being integrated into management plans to ensure mutual benefits for both natural resource users and RTQMM.

Community partnerships with natural resource user associations are also being reinforced to ensure land and natural resources are managed sustainably, with all parties sharing responsibilities, risks and benefits. To limit impacts on habitats and biodiversity, communities are being fully integrated into the sustainability approach. The forest dina governing natural resource usage and rights is being reviewed and amended to clearly set out the rights and responsibilities of all parties.

To relieve pressure on the remaining primary forests caused by firewood exploitation, RTQMM is working with communities to create a supply of fast-growing species in the areas surrounding rehabilitation sites. Alternative energy sources are being assessed, such as biofuels and fuel efficient stoves, to reduce the demand for firewood. These options are intended to reduce risks to rehabilitation zones while increasing energy supplies in the region.

Local communities are also heavily reliant on mahampy reeds for their weaving industry and ravinala for construction works that are currently available within and outside of mining areas. Mining operations in these areas will result in the loss of wetland habitat. Measures are being put in place to ensure the continued access and availability of these resources. Central to the success of these initiatives will be the establishment of a sustainable management plan for these resources in collaboration with the community.

A combination of these measures will serve to maintain the accessibility of natural resources and the quality of these habitats; and preserve fragments of littoral forest and wetlands. Through the alignment of Rio Tinto’s commitment to Biodiversity NPI and environmental license to operate, the continued availability and access to natural resources for communities can be ensured and RTQMM’s social license to operate maintained.

Sub-Results for R 1.2:

SR 1.2.1: Spatially defined land management plans (PAGS) for forest resources and wetlands are in place and effective.

SR 1.2.2: Community management committees (COGEs) and associations are in place ensuring effective application of PAGSs and social contract (dina).

SR 1.2.3: Sustainable alternative timber and non-timber products within and outside of mining concession are in place.
Ownership of natural resources by communities through the Dina (respected by all stakeholders).
Population satisfaction index impacts from the mine relative to access to natural resources.
- PAG Sol - operational and respected by all stakeholders.
- Ownership of natural resources by the communities through DINA are respected by all stakeholders.

- Pourcentage de réalisation des PAGS
- Quantité (Superficie) prélevées/collection des RN (Mahampy, Vahimpiky, Ravinala, etc.) pour les divers utilisation.
- Quantité (Superficie) de RN de substitution cultivées/créées (Reboisement).
- Taux de diminution de la quantité prélevées/collection pour les divers utilisation.
- Quantity (area) of natural resource crop substitution/created (Reforestation).
- Rate of decline in the amount deducted/collection for various uses.

**Result 1.3 Community land access and security within and around the mining perimeter and infrastructures are identified and managed.**

RTQMM works to safeguard sustainable stewardship of the land it leases/manages. Ensuring community access and security in and around the mining sites and other mining-related infrastructures is a legal obligation of RTQMM. Ensuring access requires an understanding of the current land utilization patterns in relation to mining operations. This allows RTQMM to better manage stakeholders’ expectations and define mutual, sustainable, land use solutions.

One of the primary uses of land by communities within and around the mining perimeter is grazing land for cattle (zebu). To ensure permanent access and availability to this land, RTQMM has engaged in a Kadaha joint action plan that allows impacted communities continued access to grazing land. A number of other measures are also being implemented, including replanting mined areas to a favorable pasture landscape and collaborating with farmers to ensure open dialogue and joint action plans to sustainably manage land access issues based on the application of the dina for sustainable land use and management.

Mandena’s Management Committee (COGEMA), and community enterprise Faniry, are responsible for monitoring, surveillance and community awareness activities within the mine perimeters. They ensure mitigation measures and impacts are properly assessed and addressed. Activities include communication of Mandena’s Management Plans (PAGS, Plan d’Aménagement et de Gestion Simplifié de Mandena), which provide illustrations explaining the mining zone and details of its important features such as conservation zones, natural resource access zones, sacred sites (tombs and burial grounds) and restricted access zones. As the mine moves, the PAGS are updated in collaboration with COGEMA and validated by the community. Information boards and signs posted across the Mandena site are also designed, and their location discussed, with input from COGEMA and natural resource user associations.

**Sub-Results for R 1.3:**

**SR 1.3.1:** Community access and rational management of pasture and agricultural lands within mining perimeter are assured.

**SR 1.3.2:** Information, education and communication campaigns to inform of potential dangers and incidents related to mining operations and infrastructures are in place and effective.

**SR 1.3.4:** Community surveillance patrols and other visible informational measures are in place and functional.
Result 1.4 Natural resource loss is mitigated through multi-stakeholder socioeconomic partnerships (Note: This is within the zone of influence where RTQMM assumes a supportive advocacy role but the primary responsibility lies with other partners.)

Protected areas and forest ecosystems in the Anosy region are being threatened by slash and burn agriculture, logging, and charcoal, and are vulnerable to increased migration. As economic growth activities have drawn migrant populations to Anosy, forests have come under increasing pressure as newcomers seek lands for dwellings and additional forests are cleared for agricultural and charcoal production. A multi-partner effort is required in order to contribute to strategies that ensure the long-term sustainability of Anosy’s natural resources.

RTQMM is adopting a proactive role in advocating for sustainable land-use management that incorporates linkages to biodiversity initiatives within the area of influence. This involves strengthening the understanding of land tenure, mining, and forestry codes to more effectively address issues related to land and natural resources. A broader spatial approach recognizes the extent of social and environmental challenges arising as competing stakeholder interests clash over diminishing resources. Partnerships and synergy are being developed through communal and regional level platforms to develop complimentary areas of conservation and development collaboration within the broader landscape.

Technical and financial partnerships will be identified to address energy issues and increase agricultural productivity by encouraging farmers to adopt more sustainable and profitable approaches than current practices. Emphasis will be placed on empowering rural communities to be self-sufficient. This will be done through a “farmer-to-farmer” approach using agro-ecological friendly techniques, individual reforestation plots, and by fostering market linkages between producer groups and agribusinesses.

Sub-Results for R 1.4:
SR 1.4.1: Partnerships to accompany local farmers to improve agricultural techniques, production and commercialization are established and effective.
SR 1.4.2: Partnerships to accompany rural women’s associations and cooperatives to generate additional sources of revenue are established and effective.
SR 1.2.4: Partnerships to accompany resource users in reforestation techniques and renewable energy options are established and effective.

SEMP Indicators R 1.4:
- Number and percentage of households with “viable” agriculture, fishing and livestock activities
- Increased production rates in relation to basic foods at the household level facilitated by support structures (total production and hectare)
C. Strategic Objective 2: Impact Management through Community Partnerships

Objective 2: Mining impacts are mitigated through proactive community engagement and partnerships based on mutual benefits and rights

1. Context and Evolution of Approach

RTQMM’s presence in the Anosy region has resulted in a range of economic, social and environmental impacts, both positive and negative, or a combination of the two. Proactively understanding and managing these impacts, and the change they create, is a fundamental principle of RTQMM’s social performance work. Impacts on local communities have been one of the most keenly felt, primarily due to the acquisition of land for mining-related infrastructure, which has displaced or disrupted the land and sea-based livelihoods of some of RTQMM’s host communities.

Managing these challenging processes throughout the project’s lifecycle necessitates ongoing stakeholder engagement and dynamic community partnerships. This requires minimizing impacts on communities during the project planning process, mitigating any impacts that occur, and leaving communities better off through restoration of livelihoods and other investment initiatives. As indicated in Figure 14, specific objectives and results - biodiversity, land and natural resources management, community partnerships, and local economic development - are defined based on business risks and stakeholder analysis to attain community respect, trust and confidence through a dynamic partnership based on mutual benefits and engagement. Key performance indicators are developed as part of the environment and social management plan (SEMP); however there are frequent community issues and complaints that manifest themselves that impact and derail these objectives. These are subsequently addressed through proactive stakeholder engagement plans.

RTQMM’s impact management SO encompasses the following three results: 1) Access to surface rights within mining concessions are obtained in conformity with legal framework; 2) Impact management processes are easily understood, transparent, and accessible to stakeholders with proactive and timely responses; and 3) Impacts of the mine and related infrastructure are identified and effectively managed through community partnerships based on mutual benefits.

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12 Social performance is about how an organization anticipates and chooses to manage its impacts and the associated change that may affect people and the environment (Flynn).
Lessons Learned and Best Practices

Impact Management through Community Partnerships

- Understanding legal dimensions, context and roles and responsibilities of authorities is critical
- Community consideration and analysis of direct and indirect impacts (land, natural resource access, etc.) is essential
- Grievance management systems need to be proactive rather than reactive and should not be outsourced
- Process is as important as outcome
- Updated assessment and understanding of community dynamics and characteristics based on socio-economic knowledge base and community land rights should be an ongoing process
- Analysis of potential manipulation of local authorities for personal gains should be taken into consideration when addressing community issues and complaints.
- Clear understanding of roles and responsibilities between Government, RTQMM, and civil society should be established and clearly defined
- All compensation schemes should be accompanied with a proactive dialogue and engagement process that serves to accompany impacted communities with livelihoods restoration and auto development
- RTQMM should not delegate relations with communities to third parties (eg. NGO partners)

2. Description of Results and Outcomes

Result 2.1 Access to surface rights within mining concessions are obtained in conformity with legal framework

A major priority of RTQMM’s for over five years has been to regularize the long-term lease for surface rights for the Mandena mining concession. In January 2013, RTQMM signed a partial lease with the Government of Madagascar for a portion of Mandena’s surface rights, representing 80 percent of the mining concession. To regularize this lease with the Government in conformity with the Mining Code, RTQMM has been working to establish mutual agreements with traditional occupants and natural resources users impacted by the mine to ensure the rights and responsibilities of each stakeholder (RTQMM, Government and Community) are respected.

Lack of formal land tenure, and specifically legally recognized rights to land and natural resources, is characteristic of rural Madagascar. This is one of the fundamental causes of social and economic problems generating insecurity, poverty and food shortages. As mentioned above, the communes that border RTQMM’s mining sites are composed of a population originating from many different parts of Madagascar. This has often resulted in unequal land access and resource use rights, in which there is a division in land and resource use between long-established residents and more recently arrived migrants. A major and ongoing problem has been accurately determining the land rights of recently installed occupants.

Building on lessons learned from the Public Utility Process (DUP) for the Ehoala Port, it is fundamental from the outset to ensure a clear understanding of the legal parameters for land rights within the mining concession. Based on these rights, negotiations with the communities can then be carried out in an equitable and transparent manner to achieve mutual benefits for both land occupants and users and RTQMM. As part of the process, multi-stakeholder discussions center on principles and legal parameters concerning land tenure and property rights for traditional occupants as well as mutual benefits for natural resource users based on an ongoing partnership over the life of mine.

Key stakeholders include RTQMM, the Anosy region, the regulatory body, decentralized technical services, traditional occupants, land-rights civil society platform (SIF), and the international NGO, Search for Common Ground.

In order to regularize the long term land access lease for the mining concessions, traditional landowner associations and natural resource user associations have to be established in conformity with Malagasy law. RTQMM engaged with SIF and Search for Common Ground to facilitate this process. SIF has been instrumental in increasing communities’ understanding of land tenure rights. Training delivered by Search for Common Ground has provided the required skills and knowledge for interest-based negotiation for the traditional owners associations and RTQMM. The underlying goal of RTQMM’s approach is to reach an agreement with the traditional occupants and the
resource users based on the following criteria: (i) respecting the rights of each party; (ii) transparent; (iii) fair; (iv) legal; and (v) sustainable. Figure 15 illustrates the process required to secure the long-term land lease for the three mining concessions.

Other key steps in the process in securing land access to the mining perimeter include:

- Agreement with the State to guarantee property rights for traditional occupants to allow direct lease between the associations and RTQMM for specific portions of the mining concession.
- Participatory agreements with associations of traditional occupants and resource users that include specific clauses concerning technical options before, during and after exploitation.
- Ongoing proactive communication of the process with all stakeholders to continue to manage expectations.

**Sub-results for R 2.1:**

**SR 2.1.1:** Agreements and long-term leases with traditional occupants and government are in place and respected.

**SR 2.1.2:** Community land access issues and mitigation measures are effectively addressed and in place.

**SR 2.1.3:** Expectations managed through proactive stakeholder dialogue, communication and partnerships based on the mutual benefits.

**SEMP Indicators for R 2.1:**

- Number and percentage of traditional occupants using arable and grazing land secured (with rights and respecting agreement with QMM)
- Parcel of lands for traditional occupants established and recognized by the state
- Number of user households in the deposit perimeter aware of their rights including land rights
- Good governance of land – number of real property documents issued on arable land such as CF, titles etc, number of households in the deposit perimeter covered by compensation measures
Result 2.2 Impact management processes are easily understood, transparent, and accessible to stakeholders with proactive and timely responses

Complaints and disputes are common in community life, whether induced by external or internal issues. Inevitably, communities will have cause to complain about the unintended or intended impact of mining operations. The key to successful impact management is to act immediately. Proactively resolving complaints and disputes is far preferable to allowing community issues to escalate into grievances. Most complaints can be resolved quickly and satisfactorily by:

- Dealing with complaints in person
- Apologizing for inadvertent breaches
- Rectifying root causes
- Agreeing on joint solutions that respects the rights of each party, and are legal, transparent, fair and sustainable

In some situations, however, complaints will escalate. In the interest of managing good relationships with communities, RT standards require all sites to have formal processes in place for managing, and when necessary, escalating complaints to disputes and grievances. These processes should be easily understood, transparent, and accessible to community members.

Effective processes established in advance means community groups and individuals know that they can safely bring complaints to the company and the company will respond respectively. A community complaint is an informal or formal notification that is provided by a community member, group or institution to the business due an untended impact of business activities. A community dispute is a complaint that has not been accepted as valid by one party or the other and has escalated into disagreement. A community grievance is a complaint or dispute that has escalated to the point that requires third part intervention or adjudication to resolve.

As with operations, preventing the repetition of events that have triggered community complaints requires an appropriate level of risk assessment, incident investigation and root cause analysis. Specific complaints may be symptoms of an underlying issue and identifying the root cause may not be straight forward. An adequately governed and resourced process is key to establish possible causes for complaint, including possible underlying issues, and identify mutual solutions to rectify it. Complaints should be seen as an analytical opportunity to continue to dialogue and maintain trust and confidence with the communities13.

RTQMM’s original complaint management system was designed in compliance with RT standards, and in consideration of industry best practices. Madagascar’s independent social and environmental regulatory body, ONE (Office National de l’Environnement), was designated with external management responsibility; and internally, relationships with ONE were managed by the Environment Department. This system proved ineffective as it created an inappropriate dependence on ONE that resulted in complaints and grievances being improperly addressed. The system also negatively impacted the image of the CSD department who was primarily responsible for their management and resolution. Complaints were being responded to reactively, without adequate analysis and with a lengthy delay. On numerous occasions, their ineffective treatment and resolution resulted in community discontent and blockades.

Beginning in January 2015, RTQMM internalized its community complaint management system and it was transformed into a proactive impact management system focused on concerns and issues in an effort to mitigate more formalized complaints. This has served the dual purpose of allowing: (i) ONE to play its appropriate monitoring and compliance role and only intervene in instances where dispute or grievance recourse and mediation is necessary; and (ii) RTQMM CSD team to reinforce trust and confidence with impacted communities by being more attentive and responsive to their concerns.

The impact management system ensures transparent and timely information flow and proactive dialogue, engagement, and delivery of solutions. Pertinent information is gathered by the CSD team from various sources (internally and externally), including observation, letters, formal and informal meetings and the media. The information is then entered into an information management system where the data is consolidated and disaggregated by trend in relation to various issues concerning impacts and expectations. This includes issues such as employment, land and natural resource access, access to fishing rights, and compensation schemes among others. Issues are then analysed, prioritized and further evaluated and readjusted with input from relevant team leaders before being developed into stakeholder engagement plans and concrete actions (refer to Figure 16 for an illustration of RTQMM’s Impact Management System). As many issues originate from within RTQMM, there is also a need for other departments to interact more proactively with the CSD team whenever their activities generate potential issues or impacts.

13 Source: RT Community complaints, disputes, and grievance guidance
CONSOLIDATION AND TENDANCIES

ANALYSIS OF ISSUES

EVALUATION AND READJUSTMENT

VALIDATION

EXTERNAL INFORMATION

INTERNAL INFORMATION

Figure 17: RTQMM’s Impact Management System

Figure 18: Evolution of RTQMM complaints

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average time to resolve complaints</td>
<td>2,10 years</td>
<td>1,53 year</td>
<td>1,03 year</td>
<td>1,43 year</td>
<td>5,55 months</td>
<td>4,72 months</td>
<td>5,06 months</td>
</tr>
</tbody>
</table>
As shown in Figure 17, application of this system is resulting in a reduced number of complaints and grievances, and the timeframe required to achieve their resolution.

Sub-results for R 2.3:

SR 2.3.1: Collaboration and multi-stakeholder synergy on community issues are addressed in a timely manner.
SR 2.3.2: Partners and local stakeholders are engaged and responsible in resolving strategic issues and complaints.
SR 2.3.3: Community level impacts of mining infrastructure are proactively managed.

Result 2.3 Impacts of the mine and related infrastructure are identified and effectively managed through community partnerships based on mutual benefits

In addition to the mining complex at Mandena, numerous additional mine-related and shared regional infrastructures have been developed, including roads, the Ehoala Port, a quarry, and a weir. Numerous communities have been directly impacted by these infrastructures and have required compensation packages and ongoing accompaniment in their livelihoods restoration. (Refer to Annex D: Stocktaking Analysis and Description of Refined Approaches for details of these infrastructural impacts).

RTQMM’s approach to identifying and properly managing mining-related community impacts has taken in consideration lessons learned. Appropriate understanding of the impacted population is essential. The initial response to livelihoods restoration of impacted communities was through implementation of a socio-economic program known as Integrated Development Program (PDI). Review of the PDI illustrated that several impacted communities merit from these mitigation initiatives were inadvertently left out. This was due to a lack in adequate understanding of community characteristics and dynamics (including community land rights) and an insufficient understanding of the indirect impacts on communities. To manage impacts, it is key for all complaints, issues and grievances to be proactively addressed (as discussed above under Result 2.2). In order to manage and maintain positive relationships with impacted communities, compensation alone is insufficient. Communities must be accompanied in their livelihoods restoration through formal, signed partnership agreements between community associations and RTQMM. These community partnership agreements are a simple and motivating approach based on the following key elements:

- Continual dialogue and consultation linked to concrete action and results
- Parameters for expectations set and agreed, based on transparent and open discussion to ensure common understanding
D. Strategic Objective 3: Local Economic and Competency Development

Objective 3: Local economic benefits and skills transfer opportunities are maximized

1. Context and Evolution of Approach

Supporting local communities’ active participation in the economic activity engendered by RTQMM’s operations is a core commitment of the company. There is a continued recognition of RTQMM’s comparative advantage to optimize local employment, promote employability, and support local community small-to-medium enterprise (SME) development opportunities. This also involves increased local content engagement through active support to the local supplier base. Contributing to a robust, parallel local economy that is not dependent upon the mine-related business during operation, and also thrives beyond mine closure, is important. In order to maintain SLO throughout the entire business lifecycle,

Managing impacts on marine fishing though a community partnership agreement

Fishermen have been an impacted population due to the construction of the Ehoala Port and the weir in the lagoon system bordering Mandena. Effects of these infrastructures have been a significant, persistent, source of grievances. Many claimants have expressed discontent about compensation amounts from loss in fishing revenue due to restricted access to fishing sites during the construction period. This was further compounded due to the lack in timely assistance for livelihood restoration by RTQMM.

These complaints, investigated after the January 2013 road blockage, led to the creation of a startup fund for fishery associations based on recognition that the fishing zone has been perturbed. Livelihood restoration support was also accelerated with support by RTQMM’s technical partner, Aquatic Services. However, the Libanona fishermen were still dissatisfied with the results, feeling disempowered and minimal positive impact on their fishing activities.

In early 2015, RTQMM and the Libanona fishing association revaluated these efforts and entered into a joint partnership agreement with the objective of improving traditional (artisanal/small scale) fishing practices and techniques and sustainably managing aquatic resources through the promotion of the integrated dina.

RTQMM, the fishing associations and Aquatic Services collectively developed a vision, common objectives, the aspired results, and corresponding indicators. A tripartite agreement was signed between the three partners, and the respective roles and responsibilities for each party were established. Outcomes of the community partnership agreement are leading to a greater sense of confidence, ownership, self-reliance and auto-development by the fisherman.
RTQMM must adapt its local economic development strategy to an ever changing local context. The number of employment and contract opportunities for local communities and local businesses to supply RTQMM during operations is finite and therefore alternative drivers are also needed to ensure consistent and sustainable local sourcing of labor, services and goods. Working in partnership with others to support the long-term building of skills and knowledge to reinforce local capacities is also a priority of RTQMM. These initiatives ensure longer-term business objectives such as risk management, reputation, productivity and sustainability. Building human and social capital is critical to leverage and multiply the impact of community investment resources by promoting self-reliance and increasing the capacity of current and future generations who will be active citizens during the life of the mine. As such, capacity development is the exit and sustainability strategy rolled into one.

RTQMM's local economic and capacity development SO encompasses four results: 1) Indirect employment through local services provided to RTQMM is generated; 2) Opportunities for job creation through associations/commercial cooperatives/SME are diversified; 3) Through partnerships, the level of education and professional skills of youth and adults responds to market demands; and 4) Key partners and stakeholders are engaged to promote regional socio-economic development initiatives. These results are intended to enable the local economic benefits and skills transfer opportunities for the Anosy region to be maximized leading to a parallel economy at mine closure.

2. Description of Results and Outcomes

Result 3.1 Indirect employment through local services provided to RTQMM is generated (Local Content)

Local procurement and creation of employment opportunities have been and remain a predominant priority of local stakeholders. Local procurement is of strategic importance to RTQMM as it plays a key role in securing and maintaining its license to operate, developing thriving economically viable host communities, and increasing efficiencies and ensuring reliable access to services and supplies. As RTQMM has transitioned through its business phases, local expectations have been managed through different approaches in response to changing business drivers. One of the key elements in managing expectations has been creating a clear definition of “local” based on the following criteria: (i) regulatory; (ii) geographic; (iii) ownership; (iv) size of enterprise; and (v) disadvantaged groups. As risks and opportunities have evolved, so has RTQMM’s strategy and the variety of activities that flow from it.

Lessons Learned and Best Practices

Local Economic and Competency Development

- Recognize types of investments vary based on different business phases.
- Focus on economic investments that build local capacity and promote self-reliance, professionalism and business rigor.
- Emphasize sustainability and invest in longer time-horizons, with a focus on reinforced training, skills, capacity development and technical support.
- Take time to understand the local supply chain as well as the real constraints preventing the development of local business.
- Build and maintain trust in the procurement process; ensure timely payment and avoid applying complex terms and conditions for low risk services.
- Prioritize youth within community investment programming to maximize long-term benefits.
- Emphasize community engagement to build a sense of empowerment and ownership.

To manage local expectations, the following key criteria have been established:

1. Location: Local preferential procurement is above all determined by geographical origin. A company is considered a local supplier when registered in Anosy, being installed and having its activities in Fort-Dauphin or in one of eight municipalities (communes) that are impacted by mining operations.

2. Ownership: RTQMM encourages local initiatives, promotes companies with management mainly composed of Malagasy citizens, and supports entrepreneurs who wish to develop a sustainable and profitable activity.

3. Composition of staff: RTQMM prioritizes companies where staff is mainly local (ie. native of the region or nationals who live permanently in Fort Dauphin). The final aim is to stimulate local recruitment.

Regarding these criteria, classification of local suppliers are split into 2 levels: (1) Local level 1 are Malagasy enterprises based in Fort Dauphin with 100% local employees; and (2) Local level 2 are Malagasy.
enterprises with over 50% of employees from Anosy but based elsewhere. RT local procurement currently favors more local level 2 in terms of local spend.

The objective of the CSD team is to promote the emergence of smaller community-based level 1 local enterprises through local content initiatives as a key driver for local employment. This is in recognition that a robust local content process helps build a diversified local economic base which can be self-sustaining after the life of the mine. Stakeholders can benefit in the form of employment and skills transfer. Increasing local economic participation provides a comparative advantage and a means for RTQMM to demonstrate tangible contributions to Anosy's long-term economic development through the incorporation of local businesses in the supply chain.

In conjuncture, the long-term business benefits that flow from increased local content, such as lower costs and logistics and a diversified supplier base, can allow RTQMM to meet bottom line-cost savings over an extended timeframe. This is also the policy that has been adopted by RTQMM in the recent decision to externalize non-core activities through local community small-to-medium enterprise (SME) development. The CSD team will provide an important engagement role in supporting these emerging enterprises to ensure that these local content initiatives offers win-win opportunities for all parties involved as depicted in Figure 19.

In June, 2013, RTQMM and the German Development Cooperation (through Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)) partnered through a strategic alliance to promote sustainable mining that delivers long-term socio-economic benefits to communities in the Anosy region. Specific objectives included: (i) To develop effective local content policies and practices; and (ii) To promote local economic development initiatives by supporting an enabling business environment for small and medium sized enterprises. The reorientation of RTQMM’s local content initiatives has been supported through this strategic alliance.

An important first step in developing RTQMM’s local content process has been to align departments (CSD, Procurement, Environment and other client service departments) in order to develop a common local content vision, strategy, and internal structure to reinforce local content as a core business element in business planning and strategy. The establishment of an internal, cross-departmental local content steering committee in June 2015 has facilitated strategic level collaboration, coordination and integration across key business functions to drive RTQMM’s local content process and achieve buy-in. However, for local economic participation to become a core business objective, it takes time and requires tackling entrenched business processes, organizational culture and procurement systems. Strong leadership, adequate resourcing and perseverance are needed to overcome these barriers.

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**Figure 19:**
Local Content Complimentary Values
To understand the local supply chain, including the real constraints preventing local businesses from thriving, as well as the various mine-related sectors with potential for viable development, in-depth assessments were carried out in 2013 with support from GIZ. The assessments included feasibility, risk and impact analyses to identify local content opportunities in the Fort Dauphin area. RTQMM demand and SME supply capacity were both assessed and matched. As shown in Table 10, several low-risk and low-value services have been initially identified as potential local content opportunities. Small community enterprise service providers in facility maintenance, vehicle repairs, waste management and fabric bag manufacturing (used in the transport of wet sand for mining operations), have been initially prioritized by RTQMM. Additional opportunities have been identified around site maintenance and coaching of local cooperatives near the mining sites.

For these newly created and other local enterprises to thrive they require a common set of tools and skills. This includes capacity building in areas such as financial management, business governance, tender pre-qualifications, technical/business skills, leadership, occupational health and safety, accounting, quality assurance and sales and marketing. Anosy’s first regional business center, Anosy Business Center (CARA), (with support from the RT-GIZ alliance) was created for the purpose of fostering these skills in emerging and existing local enterprises. Through day-to-day coaching, training sessions, workshops and other support mechanisms, including identification of portholes for increased market access, these local enterprises are being accompanied by CARA in their development process.

Sub-results for R 3.1:
SR 3.1.1: Capacity of local entrepreneur to meet RTQMM and partner services requirements (quantity and quality) is strengthened and effective.
SR 3.1.2: Capacity of contractors to meet RTQMM HSE standards is strengthened and effective.
SR 3.2.3: Opportunities to buy locally and use local labor to meet mine service and supply needs are maximized.
SR 3.2.4: Local content opportunities through internal collaboration are maximized.

---

<table>
<thead>
<tr>
<th>Community Enterprises</th>
<th>Provision of Service</th>
<th>Department</th>
<th>Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hasoava SARL</td>
<td>Labor</td>
<td>Shore Services</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Surveillance of Research station (Camp citronnelle)</td>
<td>Communities</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Surveillance of Research station (Ste Luce)</td>
<td>Communities</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Weir operators</td>
<td>Shore Services</td>
<td>7</td>
</tr>
<tr>
<td>FANIRY</td>
<td>Collection of cable</td>
<td>Maintenance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fire System</td>
<td>Maintenance</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Surveillance outside of controlled area</td>
<td>Operations and Communities</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Surveillance – Road Mine Port</td>
<td>MSP and Communities</td>
<td>22</td>
</tr>
<tr>
<td>Association FIA</td>
<td>Port Surveillance (outside of controlled zone)</td>
<td>Port and Communities</td>
<td>6</td>
</tr>
<tr>
<td>Association Mahasoa</td>
<td>Surveillance of Airport Village</td>
<td>Communities</td>
<td>9</td>
</tr>
<tr>
<td>Mamoasoa Sarl</td>
<td>Waste Management</td>
<td>SAE</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Bioremediation</td>
<td>Environment</td>
<td>12</td>
</tr>
<tr>
<td>Tafita Sarl</td>
<td>Spiral Cleaners</td>
<td>Operations</td>
<td>19</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>132</strong></td>
</tr>
</tbody>
</table>
Result 3.2 Commercial activities of local community small-to-medium enterprises (SME), cooperatives, and associations are strengthened and diversified

In addition to mining-related local procurement and content opportunities, RTQMM is supporting commercial local community small-to-medium enterprises (SME), cooperatives and rural associations, in order to build local economic capacity and diversify the regional economy. As a key element to build this capacity, Anosy Business Center (CARA) was established in Fort Dauphin with the purpose of providing business development services to existing and emerging SME (as noted above).

As part of the RTQMM-GIZ alliance support to CARA has being strengthened through a scaled-up and proactive approach to reinforce CARA's skills and competencies with a specific focus on business rigor, professionalism and sustainability. It is expected with reinforced tools and mentoring expertise that CARA will become a local support structure for local enterprises’ that is financially and commercially sustainable in which local enterprises are accompanied over an extended time horizon.

In addition to enterprises providing direct services to RTQMM, CARA is also providing support to SMEs, cooperatives and associations as they develop as viable, sustainable entities. Local cooperatives typically lack access to relevant regional, national, international markets, and often do not have the necessary skills nor entrepreneurial mindset as they move from subsistence to commercialization. Initiatives have focused on enhancing professionalism and business rigor to innovate and adapt products to market needs. Fishing and agriculture, along with locally produced handicrafts made from natural resources, are important non-mining sectors in Fort Dauphin with the potential to stimulate economic growth, job creation and poverty alleviation. More than fifteen local cooperatives surrounding RTQMM’s mining sites currently exist in fishing, handicrafts, artisanal baking and the processing of fruits and vegetables. Continual support from CARA will be key to ensure these community-based cooperatives and associations can become sustainable.

Limited access to credit poses a major obstacle to an enterprise’s development in Anosy. In response, RTQMM is participating in microcredit initiatives and has served as a guarantor with local banks to assist local businesses access the financial resources they need. The region’s first financing institution, IFRA (Regional Financial Institution of Anosy) was established in 2007 through financial support from the Government of Madagascar and RTQMM. Recently, RTQMM contributed to the establishment of two microcredit institutions in the communes of Mandromodromotra and Ampasy Nahampona. In addition to promoting conventional credit access, a “credit accompanied by education” program targeting vulnerable women in the Fort Dauphin district has also been developed.

Sub-results for R 3.2:

SR 3.2.1: Community and local stakeholder entrepreneurship capacities are reinforced and effective.

SR 3.2.2: Commercialization and access to credit for SMEs, cooperatives, and associations are facilitated and in place.

SR 3.2.3: Support structures (ie. CARA) for local entrepreneurship and SMEs are reinforced and functional.

Reinforcing a strong Regional Business Center: CARA

Anosy Business Center (CARA) was established in Fort Dauphin with the purpose of providing business development services to existing and emerging local community small-to-medium enterprises (SMEs). However, since CARA’s inception in 2012, many obstacles have hindered the Center from operating at its full potential. In an effort to learn how improved support might be provided, RTQMM and GIZ undertook an in-depth assessment of CARA at the end of 2013.

Results of this assessment identified the absence of a clear, long-term strategic vision, programmatic orientations, operational procedures and a valid legal status as factors impeding the Center on strategic and operational levels. Entrepreneurs also have little awareness of how business development services can benefit them, which contributes to the Center’s underuse. In conjunction, the financial and commercial sustainability of CARA continues to pose a significant obstacle, as enterprises have limited resources to pay fees.

Considering these challenges, RTQMM support to CARA is being strengthened through a scaled-up, proactive and strategic approach to reinforce CARA’s skills and competencies with a specific focus on business rigor, professionalism and sustainability. It is expected with reinforced tools and mentoring expertise that CARA will become a local support structure for local enterprises that is financially and commercially sustainable in which local enterprises are accompanied over an extended time horizon.
RTQMM is proactively engaging with regional education technical services to foster the establishment of a Regional Education Platform. The overall objective of the platform is to coordinate and reinforce synergies between different actors to ensure sustainable development of the education system. Specific objectives include: (i) improving the quality of education at the regional level; and (ii) increasing the rate of access and retention of students. Collaborative efforts with other education programs are also being promoted and mobilized such as adult education in literacy, numeracy, professional and technical training, and basic business skills.

Result 3.3 In collaboration with partners, the level of education and professional skills of youth and adults responds to market demands

Education is a key driver of development and to fostering a skilled and productive workforce in Anosy. Investing in education, adult literacy and specialized skill training contributes to wealth creation, improved living standards of communities, and sustainable economic development. In return, this directly benefits RTQMM through the creation of a higher skilled local workforce that reduces retention costs, contributes to increased production efficiencies, and prepares a future generation of employees.

In Anosy, literacy rates are some of the lowest, and dropout rates the highest in the nation (UNICEF). This situation has led to low skills levels and subsequently high rates of unemployment, as education levels, particularly of youth, do not meet service requirements and market demands. Furthermore, high levels of rural illiteracy rates reduce the confidence level to enter into business partnerships and benefit from formal business services (for example accessing credit and establishing joint ventures). As a result, opportunities to capture and retain the value added become limited for emerging businesses.

As part of medium term efforts to address educational levels, RTQMM significantly scaled up its education investments by improving access to quality education in the Anosy region through a private sector driven primary, secondary and tertiary scholarship program in RTQMM’s nine priority communes. The program includes a “life skills” component to promote civic education, leadership training, school tutoring and mentoring opportunities, which contribute to youth empowerment and improve school retention rates. In addition to youth, community leaders, parents and teachers are being mobilized on the importance of education and positive youth development.
To facilitate the long-term building of skills and knowledge, RTQMM is also reinforcing technical and professional training that aligns with business needs. The Anosy Vocational and Technical Training Center (CRFPTA, Centre Regional de Formation professionnelle et de technique d’Anosy), a first-of-its-kind institute in the region founded in 2007 through a joint-partnership between RTQMM, the Ministry of Education, the region of Anosy, the World Bank PIC project and UNDP, offers modules in computer science, accounting, electrical engineering and industrial mechanics. RTQMM has and continues to support regional educational programs, including Libanona Ecological Center and Superior Institute of Technology in Anosy (ISTA, Institut Superieur de Technologie de la region d’Anosy) with higher education programs offered in environment, geology, tourism, and fisheries.

Sub-results for R 3.3:

SR 3.3.1: Educational opportunities for youth in target communes are reinforced and improved.

SR 3.3.2: Technical, professional and adult literacy skills training respond to market demands.

SR 3.3.3: Mechanisms allowing youth to dialogue and engage in civic educational activities and decision-making are in place.
Result 3.4 Key partners and stakeholders are mobilized and implementing regional socio-economic development initiatives

Forming strategic partnerships in pursuit of shared objectives, which simultaneously helps RTQMM leverage and maximize its Biodiversity and CSP community investments, is good practice. As RTQMM looks for more cost-effective ways to deliver its Biodiversity and CSP strategy, share related risks, reach more target groups and improve the sustainability of outcomes, mobilizing key stakeholders, (including public, private, civil society, and technical and financial partners) is essential. To do this, RTQMM is building upon earlier successes to promote regional collaboration and planning by reengaging in an adaptive, participatory and self-perpetuating strategic planning and programming process with the engagement of a wide range of partners. This includes efforts to revitalize institutions established for the development of the region. RTQMM is looking at the CRD, originally formed in the early 2000’s to lead Anosy’s regional planning process, as a strong model of a region-based, multi-stakeholder platform capable of ensuring communication and coordination among various actors and overall coherent implementation of activities.

Opportunities to promote regional development in partnership with other actors are being further explored. The Ehoala Port, established as the single largest factor that could bring about sustainable development in the region, is viewed as one primary economic driver in the region. Its location was set explicitly to favor this development, and an economic development zone adjacent to the port was secured with this objective in mind. In 2010, a long-term plan (Schema Directeur) was adopted to bring about the full economic and financial benefit potentials of the port, including the development of a 440 hectare investment zone with businesses providing employment to local labor. While engagement of potential investors has been slow, largely due to the impacts of the 2009 political crisis, a social project, industrial maintenance and mica and sisal shipping operation have provided initial permanent employment to 185 people. Although the Ehoala Port has yet to reach its full potential, RTQMM continues to champion its development as motor of economic development in Anosy. As part of the Biodiversity and CSP strategy, RTQMM will continue to engage as a key partner in promoting and fostering the economic development of the region.

Sub-Results for R 3.4
SR 3.4.1: Sectorial and multi-sectorial initiatives and partnerships with RTQMM are mobilized and in place.
SR 3.4.2: Ehoala Port and economic investment zone providing positive impact towards the development of a parallel economy.
SR 3.4.3: Tourist opportunities in and around RTQMM infrastructures are developed and operational.
SR 3.4.4: Coordination and governance structures to engage multiple stakeholders to implement regional and communal plans are in place and effective (PRD, SRAT, SAIC, PUDI, PUDE, PCD).
V. Implementing Business Drivers

A. Selecting the Right Implementation Operational Modality and Partners

One of the key elements in delivering Biodiversity and CSP community investment results is to ensure the right implementation model and partners. The International Finance Cooperation (IFC) Strategic Community Investment Good Practice Handbook\(^\text{14}\) provides a summary of different implementation options as depicted in Figure 19. The selection of the “right model” represents an important strategic choice, guided by distinct variables, such as the company’s objectives, project time horizon, budget and the characteristics of the local operating context.

There are also other key elements that should be considered in the choice of the implementation model. These pertain to how a company will maintain its involvement and oversight, the sustainability and exit considerations for the model chosen (particularly from a financial standpoint), how to build capacity to support participatory decision making and governance, and how to select the right partners.

Forming strategic partnerships that can help a company to leverage and maximize its community investments is also a good practice as highlighted in the Biodiversity and Natural Resources Management standard and CSP. It is driven by the basic underlying tenet that each partner has something valuable to contribute, and that, by systematically working together, partners can achieve their goals more effectively than by working alone. These different elements are considered when determining what model is appropriate to deliver a specific initiative. RTQMM has however learned that it is not advantageous to delegate relations with communities as this directly impacts the level of community trust and confidence and SLO. As such, the use of a “hybrid” implementation modality provides the greatest advantage to deliver results. In developing the implementation operational modality, RTQMM works to ensure the following elements are considered and applicable:

- Implementation model supports RTQMM objectives
- Ownership, visibility, and oversight are maintained
- Participatory decision making and governance is fostered
- Transparency, accountability, and sustainability of funding arrangements are ensured
- Capacity building to support chosen model and encourage local delivery is provided as needed
- Exit or handover strategy is determined

Table 12 summarizes the implementation operational modalities that are currently being used by RTQMM.

Irrespective of the model chosen, maintaining ownership, visibility, and quality oversight of RTQMM supported community initiatives is required – both for risk and reputation management and to account to senior management and shareholders on how company resources are being managed and spent. Visibility ensures that stakeholders associate RTQMM community investments with the company so that the business derives the benefits in terms of positive perceptions and relations. It is important not to underestimate the level of in-house capacity (staff and expertise) and resources (time and money) required to effectively set up and monitor RTQMM Biodiversity and CSP programs.

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## Table 12: RTQMM Biodiversity CSP Implementation Operational Modality

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-house Implementation (Directly by RTQMM)</td>
<td>Initiatives to address land, resources and community risks directly linked to securing investments and maintaining reputation</td>
<td>Close links between business operations and better coordination with mitigation efforts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increases sense of ownership, accountability, and consistency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Creates a direct link with the communities based on benefits directly associated to company</td>
</tr>
<tr>
<td>Collaborative technical support and engagement</td>
<td>Activities implemented by technical partners (NGOs and government) to address indirect causes of risks</td>
<td>Creates flexibility by bringing specific technical expertise, as needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leverages outside knowledge skills, and networks</td>
</tr>
<tr>
<td>Multi-stakeholder Partnership</td>
<td>Partnerships with other actors (GOM/Private Sector/Civil Society) in Anosy implementing complimentary programs with similar values and objectives</td>
<td>Leverages outside knowledge skills, and networks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increases potential for scalability, extended reach, and enhances ownership and sustainability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enables risk sharing and cost sharing</td>
</tr>
<tr>
<td>Hybrid</td>
<td>Combination of two or more implementation models such as community partnerships model</td>
<td>Allows RTQMM to maintain direct relationship with communities while also leveraging outside knowledge and expertise</td>
</tr>
<tr>
<td>Sustainable Financing mechanisms</td>
<td>Mining royalties; micro finance guarantee fund, regional foundation</td>
<td>Promotes greater community participation in management and decision making</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attracts other partners and external funding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implementation of a program that outlives RTQMM presence and/or participation</td>
</tr>
</tbody>
</table>
VI. Monitoring and Evaluation System to Track Performance of Business Drivers (Results and Outcomes)

A. RTQMM Performance Monitoring System

Monitoring and evaluation has the most value when a company acts on the information it collects and engages stakeholders and partners on its results. RTQMM seeks to draw on local resources and capacities and to ensure its stakeholders play an integral, active, role in the evaluation and decision making process. As such, participatory methods are the key force of this evaluation process, as they generate increased trust, local ownership of outcomes and thus a sense of empowerment and increased effectiveness.

A systematic approach has been undertaken to facilitate a more structured and interactive monitoring and evaluation system in order to move beyond just measuring outputs. This system is also directly linked to the Social and Environmental Plan (SEMP) that defines the qualitative and quantitative indicators to assess RTQMM's compliance with legal obligations. The approach will be more strategic by applying the key elements as defined in Table 13 (refer to Annex B: Performance Monitoring Plan).

B. Biodiversity and CSP Review Process and Timelines

This Biodiversity and CSP MVP is subject to continuous review. In accordance with the Communities and Social Performance Standard (2014) and Communities and Social Performance multi year planning guidance (2011), the CSP MVP should be reviewed and updated annually as part of the business planning cycle. Annual updates meaning reviewing and refinement, rather than a complete rebuild. However, a complete refresh should be completed every 3-5 years, depending on the context and business needs. Annual updates should include any changes to the communities or business environment, new issues or challenges that have given rise since the last CSP update, and reassessment of any emerging opportunities and threats integrated into the operational planning process. Updates should be undertaken as an integrated part of operational planning, with the participation and sign off of the site’s senior manager and management team.

Progress of the CSP MVP should be reported internally and externally. Internally, progress should be reported via LEAN meetings and to the Senior Leadership Team. Externally, progress and results should be reported to stakeholders in a format and language that suits the local context, such as the yearly Sustainable Development Report.

• Social and economic knowledge base (Standard 1.2): Externalized monitoring and evaluation system to consolidate and analyze data and information by result and activities

• Initiatives, activities and targets (Standard 1.5): Ongoing analysis to ensure activities are responding to community priorities and initiatives

C. Project Environment Management Plan (PEMP) Monitoring Process

1. PEMP/SEMP Monitoring Obligations

The Project Environment Management Plan (PEMP), based on the Social and Environment Impact assessment (SEIA), was prepared in 2001 in support of mining activities in the Mandena sector of the Fort-Dauphin deposit, which represents about one-third of the area covered by the permits granted to QMM S.A. Future mining activities in the sectors of Petriky and Ste Luce will also involve issuance of environmental permits, based on a SEIA, as well as an assessment process whose guidelines will be identical to those of the environmental permit for the Mandena sector, the implementation of which is addressed in the PEMP.

The management plan consists of two primary aspects, namely:

• A monitoring program, whose main objective is to monitor the implementation and verify the application of the social and environmental measures proposed in the SEIA;

• Follow-up program, whose primary objective is to track the components of the natural and human environments by:
  - Assessing the efficiency and pertinence of the environmental measures implemented and/or in force;
  - Identifying and assessing those impacts that were not anticipated and/or whose scope may differ from what was expected.

The PEMP also includes a non-exhaustive list of procedures and practices that support the execution of monitoring and follow-up program for the various project phases, including obligations concerning communication and audit of results to which RTQMM agrees to adhere.

Based on the PEMP, RTQMM is required to develop mitigation and monitoring action plans for the different project components, referred to as Social and Environmental Management Plans (SEMP). Every five years, indicators of the monitoring program are updated based on an assessment of the field context, monitoring of results to date and any newly identified issues. The first plan was developed for the period from 2009 – 2014 and was updated in 2014 for the period 2015 – 2020.

The environmental and social monitoring plan documents changes of natural and social environments affected by mining operations to verify the anticipated impacts and validate the effectiveness of proposed mitigation measures and adjustments. The indicators
### Key elements of M&E System

<table>
<thead>
<tr>
<th>Setting objectives, indicators and measure of success with stakeholders and partners</th>
<th>Defining objectives with relevant stakeholders up front, and developing qualitative and quantitative indicators that are meaningful to all parties helps clarify expectations and bridge differences in perceptions of “success” among stakeholders. This reduces risk that results will be interpreted differently. This type of triangulation of perspectives is also important to building shared ownership of results and capture RTQMM return on investment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on outcomes and impacts and not just outputs</td>
<td>A focus on outcomes and impacts informs RTQMM of the broader results or changes that are being achieved and whether stakeholders feel they have benefited from a given CI initiative.</td>
</tr>
<tr>
<td>Focus on qualitative not just quantitative</td>
<td>Measures of both quantity (numbers, percentages, ratios) and quality (based on people’s perceptions and behaviors) are needed to capture CI results. Qualitative measures are especially important when considering hard-to-quantify intangibles, such as trust, capacity, sense of ownership, and perceptions.</td>
</tr>
<tr>
<td>Track change in community perceptions</td>
<td>The success of CI depends on the ability to positively influence the satisfaction, perceptions, and actions of local stakeholders, all of which are dynamic and can change over time. Obtaining real-time feedback from communities on the perceived effectiveness of CI is encouraged. Establishing a “qualitative” baseline, followed by regular community surveying, has proven valuable as a management tool and early warning system for identifying and managing key issues.</td>
</tr>
<tr>
<td>Make measurements participatory</td>
<td>Participatory monitoring and evaluation is a way RTQMM can engender trust, build local capacity, and promote mutual learning. Such approaches have been shown to enhance credibility and ownership of results among stakeholders. Common tools and mechanisms include: Leadership in the Field, community scorecards and suggestion boxes.</td>
</tr>
<tr>
<td>Integrated Biodiversity and CSP indicator system into RTQMM broader tracking system</td>
<td>Integration of Biodiversity and CSP indicator monitoring within the broader RTQMM tracking system brings together different business unit teams to promote more effective information sharing. This allows CSP results to be analyzed in the context of broader activities and issues that may influence relations with RTQMM communities. Examples of this integration include the use of Lean information boards.</td>
</tr>
<tr>
<td>Use monitoring and evaluation results to drive resource allocation</td>
<td>Monitoring and evaluation results can inform decision making on future allocation of CI resources. If RTQMM investments in one area are shown to have better results per dollar spent (in terms of number of people reached, positive impact demonstrated, and level of satisfaction of local stakeholders) over investments in another area, future resource allocations may be shifted in favor of the higher performing types of activities.</td>
</tr>
<tr>
<td>Link community outcomes and business value</td>
<td>A strategic approach to CI strives to create shared value, including business value. Understanding how RTQMM’s Biodiversity and CSP program respond to specific business objectives, and if it creates financial value- and translating community outcomes into benefits, can secure additional benefits by communicating this information to investors and financial analysts.</td>
</tr>
</tbody>
</table>

### Table 13: Key elements to ensure strategic measurement of CI
are measured using recognized rigorous and systematic methods to document changes in the operational phase of the ilmenite project.

To track changes observed during the different phases, an annual report outlining the situation is produced, that includes:

• Identification of baseline indicators;
• Presentation of the changes recorded during the year;
• Evaluation of variances during the follow-up year with the applicable standards or regulations;
• Evaluation of the efficacy of the mitigation measures;
• Identification of measures, if necessary, to achieve the targets by applicable standards or regulations;
• Comparison of results obtained during the current year compared to previous years.

2. SEMP Indicators (2015 – 2020)

In order to verify the potential mining impacts described and ensure the effectiveness of proposed mitigation and enhancement measures, RTQMM has identified social and environmental indicators to comprehensively assess the situation and adjust actions as necessary.

The main criteria guiding selection of indicators for the social and environmental elements are:

• Representative of the state of the environment;
• Representative of environmental pressures;
• Simple, easy to interpret and communicate;
• Illustrate changes in the environment in the short and long term;
• Appropriate to project scale and its impact on the social and biophysical environment;
• Reasonable costs for data collection
• Recognition of quality documentation;
• Periodically updated, based on spatial and temporal intervals, according to measurement procedures and appropriate sampling across the study area.

In regard to environmental monitoring of mining operations (industrial environment), criteria are also defined. These refer to regulatory and standards applicable to activities related to the extraction of mineral sands. These indicators, parameters and criteria were the subject of joint reflection between RTQMM and state agencies involved in environmental and social monitoring of the project.

The key indicators and parameters for results and sub-results contained in this Biodiversity and CSP are highlighted in Table 14 (reference Annex B for the comprehensive Performance Monitoring Plan (PMP)).

D. Borealis: Integrated Social and Environment Monitoring

RTQMM’s information management system is being formalized with support from BoréalisIMS, which includes 12 social and environmental modules that are connected to provide an integrated solution. This system allows for monitoring and measuring of social and environmental impacts and performance targets. Reports and key performance indicators (KPIs) are provided to users to demonstrate transparency and assist in the measurement of the efficiency and impact of an initiative. Elements of this system also encompass dynamic decision-making tools that enable RTQMM to assess various potential risks that may arise and treat them before they become an official complaint or grievance. The most applicable modules are described below:

• Stakeholder Engagement: Assists business teams in maintaining a constructive relationship with stakeholders over the lifetime of a project, consolidates information generated during stakeholder engagement activities, and allows companies to align their processes with industry best practices.
• Land Access: Allows planning and budgeting of land access activities, establishment of compensation rules and eligibility, capturing and processing of field data, and delivery of accepted compensation packages to the appropriate stakeholders, while enforcing data security and control.
• Local Business Development: Provides the means to maintain a list of local and external suppliers and contributes to: improving the quality of the local supply chain, reducing costs associated to procurement of goods and services, and demonstrating a transparent process in order to obtain and retain the company’s social license to operate.
• Compliance Management: Allows corporate managers and operational users to register, plan, monitor and follow up on company social and environmental requirements. It helps in: demonstrating compliance, reducing incidence of non-compliance events, and ensuring project support.
<table>
<thead>
<tr>
<th>Results/Mutual Benefits</th>
<th>SEMP - Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land and Natural Resources Management</strong></td>
<td></td>
</tr>
<tr>
<td>• Community land and property rights recognized</td>
<td>• Deforestation rates in protected areas and offset sites decreased from 5% to 0% over 5 years</td>
</tr>
<tr>
<td>• Effective management of protected areas to conserve biodiversity (NAP, Offsets)</td>
<td>• Sufficient gains in natural forest cover (Quality Hectares _ QH) and the conservation of priority species</td>
</tr>
<tr>
<td>• Effective management and valorization of the land and natural resources by the communities (inside and outside)</td>
<td>• Natural resources stock availability for communities increased from 5% to 20% in 5 years</td>
</tr>
<tr>
<td></td>
<td>• 250 hectares of community and individually managed forests and mahampy outside of mining zones</td>
</tr>
<tr>
<td><strong>Impact Management through Community Dialogue and Partnerships</strong></td>
<td></td>
</tr>
<tr>
<td>• Long term lease for surface rights in mining concessions</td>
<td>• Mining surface rights in Mandena, Ste Luce and Petriky secured</td>
</tr>
<tr>
<td>• Effective listening, dialogue, feedback and action based on issues, concerns and partnership agreements</td>
<td>• Positive perceptions by local communities of mutual benefits with the mine</td>
</tr>
<tr>
<td>• Sustainable livelihoods restored</td>
<td>• Community rights and responsibilities understood</td>
</tr>
<tr>
<td>• Offshore Fishing and Aquaculture productivity increased</td>
<td>• Number of community issues and concerns decreased</td>
</tr>
<tr>
<td></td>
<td>• Revenue from valorization of land and fishing resources increased</td>
</tr>
<tr>
<td><strong>Local Economic and Competency self-reliance</strong></td>
<td></td>
</tr>
<tr>
<td>Economic contribution and opportunities for impacted communities optimized</td>
<td>• Direct, indirect and induced employment by QMM increased by 22% over 5 years</td>
</tr>
<tr>
<td>• CARA/Business Development</td>
<td>• Value of purchase of goods and services from local businesses increased by 30% over 5 years</td>
</tr>
<tr>
<td>• Micro-Enterprises (artisans, transformation)</td>
<td>• Viable autonomous local enterprises delivering effective services</td>
</tr>
<tr>
<td>• Access to credit</td>
<td>• Credible and self-sustaining regional business and employment centers</td>
</tr>
<tr>
<td>• Capacity development and self-reliance</td>
<td>• Penetration rate of micro-financing increase</td>
</tr>
<tr>
<td>- Professional and Technical Training</td>
<td>• Education and professional skills levels and literacy rates align with local markets needs</td>
</tr>
<tr>
<td>- Education (civic and general)</td>
<td></td>
</tr>
<tr>
<td>- Literacy and numeracy</td>
<td></td>
</tr>
</tbody>
</table>

Table 14: Indicators and parameters for Biodiversity and CSP results and sub-results
E. Independent External Monitoring and Evaluation

Outside opinion from credible and internationally recognized individuals and groups is a valuable tool to maintain an open dialogue with key stakeholders about potential and current project issues. There have been three advisory groups that have been put into place since 2000:

1. Independent Advisory Panel
Formed in 2000, the Panel included four international and Malagasy esteemed political, economic, and environmental experts who provided an independent perspective on the role and impact of RTQMM. The Panel provided an important forum for honest and frank discussion on fundamental issues that related to the project and influenced RTQMM to set a higher standard. The Panel submitted its last formal report in 2012 and in 2015 provided a final End of Mission report summarizing the Panel’s history and lessons taken from the Panel’s experience. A new panel will be put into place in 2016.

2. Biodiversity Committee
Formally implemented in 2003, the purpose of the Committee is to give independent external advice to RTQMM on how best to conserve and enhance biodiversity within the project area before, during and after mining. The Committee advises RTQMM and the regional authorities on biodiversity issues within the Fort Dauphin area. In addition, the Committee assists RTQMM with the implementation of its Biodiversity program, specifically with the preparation and maintenance of a biodiversity monitoring plan, the biodiversity monograph and other biodiversity issues identified in the Project Environmental Management Plan (PEMP).

The Committee was instrumental in working in collaboration with RTQMM in the validation of the methodology required to establish NPI Biodiversity Forecast and the development of a set of appropriate currencies (metrics) for each group of biodiversity values including threatened species, rare habitats or non-timber forest products. They also assist in attracting and mobilizing the necessary stakeholders and resources to provide viable solutions to reach the NPI biodiversity objectives. Members volunteer with full autonomy and receive required logistics and technical support from RTQMM. Members are high level international biodiversity and conservation personalities (Dr. Pete Lowry, Dr, Rob Brett, Dr, Jorgen Ganzhorn and Dr. Paul Smith).

3. International NGO Liaison Group
The International NGO Liaison Group was created in 2010 to foster a more open and transparent dialogue with RT Corporation as concerns community issues in light of the numerous road blockages faced by RTQMM. Over a 3 year time period, there quarterly meetings with representatives from Rio Tinto and UK based NGOs and academics with the objective to provide an outside perspective on the non-technical aspects of the mining project. Key issues raised and discussed were primarily focused on community/ stakeholder engagement and communication, conflict prevention, grievance and compensation management, environmental management and improved livelihoods.
Table 15: Independent Advisory Panel: Objectives, principles and operating modality

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Guiding principles</th>
<th>Operating modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide a forum for discussion of the social, economic, institutional and environmental issues related to the project;</td>
<td>• Open, candid and transparent communication;</td>
<td>• The panel will meet at least once a year in Madagascar; during such visits, it will consult with and seek candid assessments from key stakeholders, individually and in round table discussions;</td>
</tr>
<tr>
<td>• Bring to the project fully independent international experience, advice and recommendations;</td>
<td>• Respect for confidentiality and, as required and appropriate, non-attribution of discussions;</td>
<td>• Through regular feedback and reports between meetings, the panel will work to track progress, assemble evidence of compliance with commitments and remain informed on major developments, including unforeseen problems, barriers and new challenges;</td>
</tr>
<tr>
<td>• Conduct regular literature reviews with a view to identifying experiences and best practices of relevance to the project and bring these to the attention of the company and other interested stakeholders;</td>
<td>• Timely response by RTQMM to any request for non-proprietary information by the panel;</td>
<td>• The panel will set its own agenda and provide independent advice to RTQMM;</td>
</tr>
<tr>
<td>• Advise RTQMM and other parties as appropriate on all non-technical aspects of the project.</td>
<td>• Unrestricted and public access to panel members and panel processes;</td>
<td>• The panel may invite any person from RTQMM or from &quot;Interested &amp; Affected Parties&quot; to its meetings;</td>
</tr>
<tr>
<td></td>
<td>• Panel members retain freedom to communicate, individually or collectively, about panel activities and the project.</td>
<td>• Panel reports will be made available in their entirety and publicly accessible electronically;</td>
</tr>
</tbody>
</table>
<pre><code>                                                                                                                                                                                 | • Following its formal meetings, the panel will issue publicly accessible reports, including RTQMM responses to observations and recommendations, on a timely basis;  |
                                                                                                                                                                                 | • The panel may issue additional assessments of progress as it deems appropriate.                        |
</code></pre>
<table>
<thead>
<tr>
<th>Committee Objectives</th>
<th>The Committee contributes to RTQMM’s Social, Economic and Environmental program by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• providing a forum to discuss environmental, social and biodiversity issues related to the project</td>
</tr>
<tr>
<td></td>
<td>• bringing appropriate experience, particularly international, to the project</td>
</tr>
<tr>
<td></td>
<td>• advising on the on-going environmental program, including advising on setting milestones, targets and associated metrics for the project and supporting the use of RTQMM as a focus for the development of biodiversity tools and processes;</td>
</tr>
<tr>
<td></td>
<td>• integrating the social dimension into discussion of environmental issues;</td>
</tr>
<tr>
<td></td>
<td>• advising on the biodiversity monitoring plan;</td>
</tr>
<tr>
<td></td>
<td>• providing RTQMM with sources of information, including potential contractors; and</td>
</tr>
<tr>
<td></td>
<td>• helping RTQMM attract and assemble the necessary stakeholders and resources to implement viable biodiversity-related solutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guiding Principles</th>
<th>• Open and honest communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Non-attribution of discussions</td>
</tr>
<tr>
<td></td>
<td>• Full access to social and environmental information</td>
</tr>
<tr>
<td></td>
<td>• Committee process and information is accessible to the public</td>
</tr>
<tr>
<td></td>
<td>• Members retain freedom to communicate, individually or collectively, about Committee activities and the project</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Committee membership</th>
<th>Committee membership is by invitation of RTQMM. Additional members or participants will be sought to provide further social and environmental expertise, as needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two types of Committee members will be recruited:</td>
</tr>
<tr>
<td></td>
<td>1. Technical Advisors:</td>
</tr>
<tr>
<td></td>
<td>• To form the majority of the committee, ideally at least two thirds</td>
</tr>
<tr>
<td></td>
<td>• Advise on specific issues that impact on biodiversity for the project e.g. the selection of appropriate offsets</td>
</tr>
<tr>
<td></td>
<td>• Attend as individual technical specialists, selected for their knowledge of biodiversity issues relevant to Madagascar, rather than organizational allegiance</td>
</tr>
<tr>
<td></td>
<td>2. Strategic partners:</td>
</tr>
<tr>
<td></td>
<td>• Individuals will ideally possess relevant local knowledge, but principally represent Rio Tinto, its key partner organizations, or others undertaking related project work.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating modality</th>
<th>Committee meets at least once a year. Other meetings will be organized as required with limited members. Meetings are held in Madagascar, France or the UK. Meetings will normally last three days, broken down into one and a half days focusing on input from technical advisers, followed by one and a half days focusing on implementation with the strategic partners. Site visits are in addition to these sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Committee may invite additional persons from RTQMM or other parties to its meetings (additional costs for participation will have to be accepted by RTQMM in advance)</td>
</tr>
<tr>
<td></td>
<td>• RTQMM will respond in a timely way to requests for information</td>
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<tr>
<td></td>
<td>• Committee may provide a statement of progress and accomplishment at appropriate times</td>
</tr>
<tr>
<td></td>
<td>• Committee will provide independent advice to RTQMM and can identify its own topics of interest and agenda priorities. Agendas and itineraries will be finalized jointly with RTQMM by the chair of the next meeting. Meeting notes will be prepared by a designated member of the committee. The draft notes will be circulated to Committee members for comments and corrections</td>
</tr>
</tbody>
</table>
References


Harvey, B. 2013. Social development will not deliver social license.

Rio Tinto QMM. Biodiversity Action Plan (BAP). 2010. Prepared by QMM Biodiversity, Community Affairs and Sustainable Development Department, In collaboration with The Biodiversity Consultancy Ltd.

UNICEF


World Bank, SMI CSRM, the University of Queensland. Economic Contributions from Industrial Mining in Madagascar: Research Summary.

### Global Purpose: Ensure legal obligations and social license to operate to secure investment, growth, reputation and legacy

### Global Goal: Attain community respect, trust and confidence through a dynamic partnership based on mutual benefits and engagement

<table>
<thead>
<tr>
<th>Strategic Objective 1</th>
<th>Strategic Objective 2</th>
<th>Strategic Objective 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biodiversity conservation, ecosystem services, and access and availability to natural resources by communities impacted by the mine are ensured</strong></td>
<td><strong>Mining impacts are mitigated through proactive community engagement and partnerships based on mutual benefits and rights</strong></td>
<td><strong>Local economic benefits and skills transfer opportunities are maximized</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R1.1</th>
<th>R2.1</th>
<th>R3.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability of quality of biodiversity within Protected Areas and offsets is ensured</td>
<td>Access to surface rights within mining concessions are obtained in conformity with legal framework</td>
<td>Indirect employment through local services provided to RTQMM is generated (Local Content)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R1.2</th>
<th>R2.2</th>
<th>R3.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability and access by communities impacted by the mine to timber and non-timber products and wetlands are assured</td>
<td>Impact management processes are easily understood, transparent, and accessible to stakeholders with proactive and timely responses</td>
<td>Commercial activities of local community small-to-medium enterprises (SME), cooperatives, and associations are strengthen and diversified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R1.3</th>
<th>R2.3</th>
<th>R3.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community land access and security within and around the mining perimeter and infrastructures are identified and managed</td>
<td>Impacts of the mine and related infrastructure are identified and effectively managed through community partnerships based on mutual benefit</td>
<td>In collaboration with partners, the level of education and professional skills of youth and adults responds to market demands</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R1.4</th>
<th>R2.4</th>
<th>R3.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural resource loss is mitigated through multi-stakeholder socioeconomic partnerships</td>
<td></td>
<td>Key partners and stakeholders are mobilized and implementing regional socio-economic development initiatives</td>
</tr>
</tbody>
</table>

### Cross Cutting Strategic Objective: Equitable and permanent dialogue with communities and stakeholders to maintain mutual benefits and commitments is established

- **TR.1** Appropriate spaces for equitable dialogue based on mutual benefits are functional
- **TR.2** Reliable and transparent information is available and accessible to all stakeholders
- **TR.3** Governance principles and values are mutually respected by all stakeholders
- **TR.4** Balance between an industrial business and local cultural values are understood and maintained
## Strategic Objective 1:

**R1.1** Sustainability of quality of biodiversity within Protected Areas and offsets is ensured

**SR1.1.1** Protected area management and species conservation plans are in place and effective

<table>
<thead>
<tr>
<th>Strategic Objective 2</th>
<th>Strategic Objective 3</th>
<th>Cross Cutting Strategic Objective:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R2.1</strong> Access to surface rights within mining concessions are obtained in conformity with legal framework</td>
<td><strong>R3.1</strong> Indirect employment through local services provided to RTQMM is generated (Local Content)</td>
<td><strong>TR.1</strong> Appropriate spaces for equitable dialogue based on mutual benefits are functional</td>
</tr>
<tr>
<td><strong>SR2.1.1</strong> Agreements and long-term leases with traditional occupants and government are in place and respected</td>
<td><strong>SR3.1.1</strong> Capacity of local entrepreneurs to meet RTQMM and partner services requirements (quantity and quality) is strengthened and effective</td>
<td><strong>STR1.1</strong> Mutual rights and reputational respect is maintained with national and regional stakeholders</td>
</tr>
</tbody>
</table>

**SR1.1.2** Organizational and technical capacity of protected area managers is effective

**SR1.2.2** Community land access issues and mitigation measures are effectively addressed and in place

**SR3.1.2** Capacity of contractors to meet RTQMM HSE standards is strengthened and effective

**SR1.1.3** Research, restoration and ecological monitoring activities maintain quality and quantity of biodiversity in conservation zones

**SR2.1.3** Expectations managed through proactive stakeholder dialogue, communication and partnerships based on the mutual benefits

**SR3.1.3** Opportunities to buy locally and use local labor to meet mine service and supply needs are maximized

**SR1.2.1** Spatially defined land management plans (PAGS) for forest resources and wetlands are in place and effective

**SR2.2.1** Collaboration and multi-stakeholder synergy on community issues are addressed in a timely manner

**SR3.2.1** Community and local stakeholder entrepreneurship capacities are reinforced and effective

**SR1.2.2** Community management committees (COGEs) and associations are in place ensuring effective application of PAGSs and social contract (dina)

**SR2.2.2** Partners and local stakeholders are engaged and responsible in resolving strategic issues and complaints

**SR3.2.2** Commercialization and access to credit for SMEs, cooperatives, and associations are facilitated and in place

**SR1.2.3** Sustainable alternative timber and non-timber products within and outside of mining concession are in place

**SR2.2.3** Community level impacts of mining infrastructure are proactively managed

**SR3.2.3** Support structures (i.e. CARA) for local entrepreneurship and SMEs are reinforced and functional

**SR1.2.4** Local content opportunities through internal collaboration are maximized

**SR3.1.4** Local content opportunities through internal collaboration are maximized

**SR1.2.3** Sustainable alternative timber and non-timber products within and outside of mining concession are in place

<table>
<thead>
<tr>
<th>Strategic Objective 2</th>
<th>Strategic Objective 3</th>
<th>Cross Cutting Strategic Objective:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R2.2</strong> Impact management processes are easily understood, transparent, and accessible to stakeholders with proactive and timely responses</td>
<td><strong>R3.2</strong> Commercial activities of local community small-to-medium enterprises (SME), cooperatives, and associations are strengthened and diversified</td>
<td><strong>TR2</strong> Reliable and transparent information is available and accessible to all stakeholders</td>
</tr>
<tr>
<td><strong>SR2.2.1.1</strong></td>
<td><strong>SR3.2.1.1</strong></td>
<td><strong>STR2.1</strong> Diverse sources to access information are mobilized and effective</td>
</tr>
<tr>
<td><strong>SR2.2.1.2</strong></td>
<td><strong>SR3.2.1.2</strong></td>
<td><strong>STR2.2</strong> Mechanisms for internal and external information exchange and analysis are functional</td>
</tr>
<tr>
<td><strong>SR2.2.1.3</strong></td>
<td><strong>SR3.2.1.3</strong></td>
<td><strong>STR2.3</strong> Exchange of information with national and regional media and journalists (Radio, TV, newspaper) is maintained</td>
</tr>
</tbody>
</table>

### Biodiversity, Communities and Social Performance Multi Year Plan

2016 - 2021
### R1.3 Community land access and security within and around the mining perimeter and infrastructures are identified and managed

#### SR1.3.1 Community access and rational management of pasture and agricultural lands within mining perimeter are assured

#### SR1.3.2 Information, education and communication campaigns to inform of potential dangers and incidents related to mining operations and infrastructures are in place and effective

#### SR1.3.3 Community surveillance patrols and other visible informational measures are in place and functional

### R2.3 Impacts of the mine and related infrastructure are identified and effectively managed through community partnerships based on mutual benefit

#### SR2.3.1 Partnership agreements with impacted communities are in place with improved confidence, self-reliance, and livelihoods

#### SR2.3.2 Fisheries management in targeted areas is improved and generating increased income by impacted communities

#### SR2.3.3 Mining infrastructures and related issues are being managed through stakeholder engagement based on mutual benefits

### R3.3 In collaboration with partners, the level of education and professional skills of youth and adults responds to market demands

#### SR3.3.1 Educational opportunities for youth in target communes are reinforced and improved

#### SR3.3.2 Technical, professional and adult literacy skills training respond to market demands

#### SR3.3.3 Mechanisms allowing youth to dialogue and engage in civic educational activities and decision-making are in place

### TR.3 Governance principles and values are mutually respected by all stakeholders

#### STR.3.1 Good governance within community based and Civil Society Organizations (CSO) is strengthened

#### STR.3.2 Governance in key governmental technical services and communes is supported and enhanced

#### STR.3.3 Mechanisms to strengthen networking/liaison between Government, private sector and civil society organizations are in place and functional

### R1.4 Natural resource loss is mitigated through multi-stakeholder socioeconomic partnerships

#### SR1.4.1 Partnerships to accompany local farmers to improve agricultural techniques, production and commercialization are established and effective

#### SR1.4.2 Partnerships to accompany rural women’s associations and cooperatives to generate additional sources of revenue are established and effective

#### SR1.4.3 Partnerships to accompany resource users in reforestation techniques and renewable energy options are established and effective

#### SR1.4.4 Partnerships to accompany resource users in reforestation techniques and renewable energy options are established and effective

### R3.4 Key partners and stakeholders are mobilized and implementing regional socio-economic development initiatives

#### SR3.4.1 Sectorial and multi-sectorial initiatives and partnerships with RTQMM are mobilized and in place

#### SR3.4.2 Ehoala Port and economic investment zone providing positive impact towards the development of a parallel economy

#### SR3.4.3 Tourist opportunities in and around RTQMM infrastructures are developed and operational

#### SR3.4.4 Coordination and governance structures to engage multiple stakeholders to implement regional and communal plans are in place and effective (PRD, SRAT, SAIC, PUDI, PUDE, PCD)

### TR.4 Balance between an industrial business and local cultural values are understood and maintained

#### STR.4.1 Intercultural values (local and industrial) are known and respected

#### STR.4.2 Community-based organizations and traditional leaders are mobilized as an engine of change

#### STR.4.3 Community access to sacred sites and cultural practices in the mining areas are assured