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# Rio Tinto and Madagascar – is it equitable?

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***June 2004***

# 1 Introduction

Madagascar is the one of the 37 Heavily Indebted Poorest Countries (HIPC hereafter) in the world according to the World Bank. Its Poverty Reduction and Growth Strategy (PRGS hereafter) programme was presented to the Bank in 2000 and received a satisfactory response. The programme included structural reforms on land ownership for foreign entities, tax reforms to attract investments, and mining code reforms. In return Madagascar was granted some debt relief and further funds to take its growth programme forward.

One of the main anchor of Madagascar's PRGS programme is the development of a Titanium Dioxide ($TiO_2$) mining project in Fort Dauphin on the south east coast, in partnership with Rio Tinto, one of the world's leading mining companies. The resulting joint venture is Qit Minerals Madagascar (QMM) with a ownership split 80% Rio Tinto and 20% Madagascar. This is a surface extraction project with an expected lifespan of 60 years over 6,000 ha of land. They would also build a port.

Madagascar's 2002 earning from exports was 16% of GDP which is less than its imports at 22.6% of GDP (World Bank Statistics, 2003). The country therefore needs to find foreign currency by other means. In addition, 9.9% of exports goes towards debt servicing. A calculation of publicly available statistics shows that Madagascar needs an annual foreign currency revenue of $270 million to meet its imports and debt obligations. So where will its leaders find this additional annual income to break even?

The debt restructuring option has been exhausted, and Madagascar is eligible for anything that pertains to the world's 37 HIPC such as debt relief, zero interest loans, and food for work programmes (IMF and World Bank, 2003). The country's structural adjustment programme is heavily prescribed by its creditors.

The mining of Titanium ore presents two opportunities for the country. First it is a source of foreign reserve income, second it is the first major greenfield investment in the country. By going ahead with the project, Madagascar increases its profile vis-à-vis its creditors and demonstrates its commitment to economic reforms in order to enable it to meet its debt obligation and lift the country out of poverty.

The ethical issues highlighted in this study are the environmental, social and economic aspects of the mining project, with a greater emphasis on the economic argument. First we will outline the issues at stake, then we will look at the ethical dimensions of these issues, and in conclusion, we apply current ethical debates pertinent to Rio Tinto and provide managerial recommendations.

## 2 QMM responsibilities

QMM adheres to Rio Tinto's policies on society and environmental framework of values and standards as outlined in the group statement of business practice *The way we work*. It reflects Rio Tinto's integrated approach to economic, social, and environmental aspects of its activities (Rio Tinto, 2003), known as the "triple bottom line".

In addition, Rio Tinto published a Compliance Guidance Framework in 2003 to help local subsidiaries to implement and maintain best practice compliance.

| | |
|---|---|
| • board responsibilities<br>• safety<br>• occupational health<br>• environment<br>• land access<br>• political involvement | • communities<br>• human rights<br>• employment<br>• sustainable development<br>• openness and accountability<br>• assurance and verification |
| **Rio Tinto, The Way We Work, 2003** | |

**Figure 1**

QMM presented the following cost benefit analysis to support the mining proposal in 2002.

| | POSITIVES | NEGATIVES |
|---|---|---|
| ECONOMIC | - 600 direct employments,1 100 indirect jobs, over 60 years<br>- Contribution of 26 M USD/year to GDP<br>- Royalties, taxes and dividents up to 21 M USD/year<br>- Trades in goods and services 5 M USD/year<br>- Port as a trigger for economic activities: mining, tourism, fishing, agriculture, etc. | - Public financing of infrastructures (port, roads)<br>- Cost of public services induced<br>- Local inflation |
| SOCIAL | - Sustainable source of woods<br>- Community management of renewable resources<br>- Stable employment and salaries<br>- Training<br>- Health and education programme<br>- Provision of water in Fort Dauphin<br>- Long term project<br>- Poverty reduction | - Rapid change of the values and social relationship, and of the spirit of the place<br>- Migration<br>- Increased risk of AIDS and sexually trasmissible desease<br>- Temporary and permanent modification of the soils and use of water, including fishing practice at Ambavarano<br>- Inequal distribution of benefits/wealth<br>- Truck traffic |
| ENVIRONMENT | - Conservation areas<br>- Ecological restoration<br>- Reforestation to protect the conservation effort<br>- Carbon Sequestration | - Loss of forest sections<br>- Pressure on the forest due to development and immigration<br>- Increased emmission<br>- modified water/hydrolic systems |

**Figure 2. Source: Qit Madagascar Minerals, 2001**

This section explores the underlying issues around this triple bottom line approach and provides an adjusted cost benefit analysis which will form the basis of the ethical dimensions discussed in section 3.

## 2.1 Environment

The QMM consultation document (2001) acknowledges that the proposed mining area is one of the last vestiges of littoral forest on the island, with significant biodiversity. The proposal encountered strong opposition from social and environmental agencies such as the World Wild Life Fund, Conservation International and Friends of the Earth UK.

> "The threatened littoral forests are irreplaceable and anywhere else in the world habitats of this importance would be formally protected," (Robin Webster, Friends of the Earth. Reuters May 2004)

Initiated by the World Bank, the Malagasy government asked QMM to undertake a social and environmental impact assessment (SEIA) of the project as a pre-condition to granting permit. The report proposed the mitigation of the loss of biodiversity by establishing conservation areas within the mining region (QMM SEIA, 2001).

> "The government and the World Bank have designated Fort- Dauphin a national growth pole. They have proposed a series of measures accompanying the mine and a port to help reduce poverty through responsible economic development of the region. The measures will be designed to help ensure a harmonious integration of the mine and the port into the region and to promote other forms of economic development, including tourism." (Conservation International, 2001)

A programme of reforestation with eucalyptus is planned as part of the restoration of the disturbed land, but QMM admits that there will be permanent loss of species. The summary of the *Way we work* (Rio Tinto, 2003) states that whenever possible, the group prevents, minimises, mitigates and remedies harmful effects of the Group's operation on the environment. The ethical dimension of the impact of the mine on the environment will be analysed in section 3.2.

## 2.2 Social

The inevitable social impact of the mine primarily revolves around population displacement and alienation.

Friends of the Earth estimates some 50,000 people living near the proposed site will be affected by the mining project (Reuters, 2004). However, a spokesman for QMM affirms that there are no people living on the site (Reuters, 2004). Such contradictory messages inspire deep suspicion with regard to the truth. The author has video footage of village people living in situ, and has personally visited one of the villages, Evatra, which, although spared of the dredging weir, will still be affected by the operation. The issue of assessment methodology arises here as each side views the census from an interpretive or positivist perspective. However, to discount the population of a village the size of Evatra would be to discount an estimated 80% of communities on the whole of Madagascar (estimation by the author).

QMM's cost benefit analysis highlights the social impacts such as cultural alienation, loss of land through expropriation, migration, and increased exposure to sexually transmissible disease including AIDS (QMM, 2001). In addition, a review of the literature outlines other social issues such as powerlessness or involuntary stakeholders, ethnic tensions, loss of lifestyle, language, systems of meanings, human rights and dignity (Reed, 2002).

The QMM analysis highlights the provision of direct employment to 600 local people, however an interview with a QMM representative tones this down saying that "the company hoped to

employ around 600 people from the local community, rather than migrant workers." (Reuters, 2004). The predicted lack of skilled labour suitable for the jobs is not specific to this operation. In a similar case in Canada, a mining company declined to recruit from the local community on the grounds of efficiency and economics, arguing that the project would not be viable otherwise (Cragg and Greenbaum, 2002).

Finally, the Biodiversity Economic Library (2001) asks how a project of this magnitude can benefit a country that lacks the social and physical infrastructure to support it. QMM addresses this issue by currently funding Social Community programmes in Fort Dauphin, drawing from Rio Tinto's experience at Richard Bay Minerals in South Africa, where the company funds development projects including health and education (Kapelus, 2002). This is common practice for mining companies in South Africa, and Rio Tinto's funding in 1999 dwarfed government funding in the area. These development measures raise the question of the role of corporate responsibilities of transnational companies whose spending power is greater than the host government. Further discussion on this element is provided in section 4.3 on managerial implications.

## 2.3 Economic

The economics of the mining project is the main focus of this study. We will dissect the logics of the 80:20 ratio to analyse the ethical issues from a business perspective.

*Equity*

Madagascar will borrow $36 million for its share of investment in the project, and technically breaks even after the second year of earning the full value of the expected royalty payment of $21million per year (QMM, 2001).

Such a calculation does not take into account the cost of the land, Madagascar's main asset and primary investment in the joint venture.

On the basis of the ratio 80:20, corporate financing principles imply that Rio Tinto is bringing in 80% and Madagascar 20% of the asset value. In other words, the ore deposit land - putting aside the value of the biodiversity to be destroyed - is worth 20% of the value of the whole operation.

Rio Tinto is investing $400 million in the project, therefore the total cost of the venture is $500 million. This implies that the 6,000 ha of land and the ore deposit, which is Madagascar's share of asset, is valued at $100million. That is $1.7 per square metre of land.

The cost of land in the highlands of Madagascar, which does not have any specific mineral or environmental value, is on average $10 per square metre (Midi Madagasikara, 2004). Let us

assume this as the cost of land in Fort Dauphin. Madagascar's real asset contribution to the project is $600million. From these calculations, the ratio of the joint venture should be 40:60.

*Payback period*

Using the adjusted value of land and the official ratio 80:20, and assuming that the maximum royalties are paid each year, Madagascar will break even in 30 years' time (21M * 30 = 630M). The country will then need to ensure that the mining operations continues in order to make any profit, and the maximum realizable profit is $630 million.

Madagascar could earn the same return by simply selling the land at $10 per square meter. The additional premium makes the difference - i.e. the environmental and social costs incurred by the country with the mining venture will be waived or at least drastically minimised with a non extractive economic activity alternative such as tourism, generating sustainable work demand from the locals and wider distribution of income in the region. South Africa, for example, has rejected the expansion of Richards Bay Minerals mining proposal in St Lucia and decided to develop the area through eco-tourism instead (Kapelus, 2002). St Lucia is now a designated Unesco World Heritage Site.

In contrast, a conservative estimate of Rio Tinto's net income of $ 84million USD a year gives a standard payback period 5 years for its $400 million investment.

*Profits*

Estimated output of Titanium ore per year is 750,000 tons per year (QMM, 2001). The total annual income of $105 million a year implies that the cost of the output is $140 per tons or 14 cents per kilogram.

The annual average price for Titanium ore in 2002 is $1.5 per kilogram (Innovation Group, 2004), therefore the gross income should be over $1,125 million. This sum does not take into account the bi-product of the mining, the mineral Zircon, which also has a marketable value. Taking off the profits of $105 million, the operational costs is $1020 million per year.

The true value of the land is difficult to estimate as the author does not have access to data for valuation of environment pricing. It is however safe to suggest that it should be higher than the basic value of the land. Therefore, the suggested adjustment of the ratio of investment for Madagascar at 60% is lower than it should be.

These are simplistic calculations based on publicly available data, and the sums ignore any future or discounted interest and inflation. In addition, there may be other accounting intricacies that affect the calculations based on the ratio. However they reflect the issue of equity and raise the ethical dimensions analysed in section 3.1.

## 2.4 Adjusted cost-benefit analysis

Taking into consideration the analysis of the "triple bottom line", the author presents an adjusted cost-benefit analysis as in figure 3.

| | POSITIVES | NEGATIVES |
|---|---|---|
| ECONOMIC | - 600 direct employments,1 100 indirect jobs, over 60 years<br>- Contribution of 26 M USD/year to GDP<br>- Royalties, taxes and dividents up to 21 M USD/year<br>- Trades in goods and services 5 M USD/year<br>- Port as a trigger for economic activities: mining, tourism, fishing, agriculture, etc. | - Public financing of infrastructures (port, roads) through loan 36 M USD<br>- Cost of public services induced<br>- Local inflation<br>- Contingent on continuous operation of the mine after 30$^{th}$ year before making profit<br>- Dependence therefore on the fluctuation of world market for TiO2 which is currently declining due demand slow down, substitution, and oversupply on the market.<br>- Loss of opportunity income of 40% ratio<br>- Loss of opportunity income from expenditure worth 1020 million USD through excessive outsourcing and minimal local redistribution.<br>- Loss of land value worth 600 million USD<br>- Loss of sustainable income for local communities<br>- Loss of land ownership and degradation of land value<br>- Degradation of regional value as a tourist destination<br>- Degradation of the regional value resulting from social problems<br>- Conditional provision of employment to local community. |
| SOCIAL | - Sustainable source of woods | - Rapid change of the values and |

| | | |
|---|---|---|
| | - Community management of renewable resources<br>- Stable employment and salaries<br>- Training<br>- Health and education programme<br>- Provision of water in Fort Dauphin<br>- Long term project<br>- Poverty reduction | social relationship, and of the spirit of the place<br>- Migration<br>- Increased risk of AIDS and sexually trasmissible desease<br>- Temporary and permanent modification of the soils and use of water, including fishing practice at Ambavarano<br>- Inequal distribution of benefits/wealth<br>- Truck traffic |
| ENVIRONMENT | - Conservation areas<br>- Ecological restoration<br>- Reforestation to protect the conservation effort<br>- Carbon Sequestration | - Loss of forest sections<br>- Pressure on the forest due to development and immigration<br>- Increased emmission<br>- modified water/hydrolic systems |

**Figure 3 – Adjusted cost-benefit analysis – Vola Parker 2004**

It is clear from this table that the economic details presented in the QMM analysis are generous on the benefits and conservative on the costs. Notably, it highlights the maximum amount of revenues despite the risks involved in relation uncertainty of output and fluctuating market demands.

The author has not identified any literature analysing the economics of the project, as most critics focus on the environmental and social impacts usually from an interpretive paradigm. The shortfall of the economics is striking however, and this study will analyse this from an ethical viewpoint. In particular, it raises the question of equity, environmental rights, and justice.

# 3 Ethical dimensions of the mining project

This section explores the ethical dimensions of the QMM mining project. First we will look at the imbalance of negotiation power that underlines the decision to proceed with the mine using Hobbesian and Kantian ethical principles. Then Blackstones's theory of environmental rights is used explore the environmental debate, focusing on choice and sustainability. Finally, at the individual level, we will explore the ethics of displacement and land ownership, using Rawls' principles of justice and fairness.

## 3.1 Equitability

*Power imbalance*

A recurrent theme identified in the literature on mining is the David and Goliath scenario (Wheeler et al, 2002). The imbalance of power influences the negotiating position of each party. Rio Tinto's net profit in 2003 for example could pay off Madagascar's entire foreign debt. This is reflected in the joint ownership ratio of 80:20. The bargaining power of the Malagasy government is low, and the country is vulnerable to any change of mind by Rio Tinto over the life of the project.

Madagascar's desperation is demonstrated by the speed at which the mining permit has been granted three months after the submission of the Environmental and Social Impact Assessment and its willingness to increase its unsustainable debt to invest in this project. As outlined in the cost benefit analysis, the project is potentially a loss for the country unless the operation carries on for its projected life of 60 years.

From a Hobbesian viewpoint, which stipulates a moral obligation to govern your equals, or to come into agreement with equals, in order to maintain order in the society (Velasquez, 1992), it appears that the World Bank has a moral role over this negotiation process, as Madagascar's creditor. By agreeing to lend the money to Madagascar, the World Bank is signaling that it views this project as economically viable. From purely a technical and short term viewpoint, the Bank may get its $36 million loan back in time.

However from the point of view of the primary creditor of Madagascar's $1.4 billion debt, it begs the question of how the World Bank sidestepped the Hobbesian morality of governing equals to allow what is technically a bad business deal.

The imbalance of power will also affect future agreement enforcement, and honouring of contracts. For example, a worst case scenario could be for QMM to pull out of the operation due to low demands in the market any time. Will the Malagasy government be in a position to demand its due in terms of restoration and cleaning bills? There are five or six foreign ships rotting in Fort Dauphin harbour and this is evidence of the country's powerlessness vis-à-vis international operators.

*Liberalisation of markets*

One of the arguments for going ahead with the project is to showcase Madagascar's liberalised markets. The project is hoped to act as a catalyst for growth in the country on two points: first as a injection of money for the local economy, second as a precursor of other greenfield foreign investments into the country.

Reed (2002) argues that free market is not adequate for a country which is primarily resource–based. In Madagascar's case, first, the liberalisation of the markets results in unsustainable trade deficit. Second, because of the low bargaining power - we will sell at any price - the concept of competition and free market based on the true value of the goods is flawed as the goods are traded on terms that do not reflect their true costs. We will discuss this further in the light of environmental rights in the section 3.2.

*The business deal*

The fundamental ethical question arising from the economic perspective is that of the morality of the business deal. Kant's principle of universal morality (Bowie, 1999) perhaps highlights this best: was it morally right for Rio Tinto to exploit the vulnerability of a country such as Madagascar, and proceed to a non viable business deal that Rio Tinto would not have accepted itself? It is clear that Rio Tinto has not attempted to establish a win-win situation economically, and that the real bottom line of cost cutting and profit maximization inherent to the mining industry prevails (Cragg and Greenbaum, 2002). The implication creates an antagonistic environment which QMM tries to appease through community financial contributions. Such a goodwill gesture however does not compensate for the sense of loss and of being cheated that the local community experiences.

## 3.2 Environment rights

Willam Blackstone advocates that a quality living space is a right, and this concept of "environment rights" has been adopted in several American states as part of their constitutions. (Velasquez, 1992).

> "The people have a right to clean air, pure water, and to the preservation of the natural scenic, historic, and aesthetic values of the environment." (Pennsylvania constitution, quoted in Velasquez, 1992)

Rio Tinto's strapline of "global citizen, local partner" (Wheeler et al, 2002) demonstrates an aspiration to become a neighbour of choice, but is yet to reconcile this with its operations.

QMM mining project will not only destroy the natural beauty of the environment over 6,000 ha of land. In addition, the building of a dredging weir, a port, and roads will cause additional eye sore and pollution. Other negative impacts due to the social inequality are rising prostitution, increase of sexually transmittable diseases, and demographic increase causing pressure on housing, sanitary and health services.

The claim for sustainable development by the QMM, the government and the World Bank with regard to the project is analysed using a utilitarian cost-benefit analysis and the principles of market efficiency.

Does the value of commodities reflect the true cost of producing the commodities? (Velasquez, 1992)

The mining will destroy a unique littoral forest of significant biodiversity value (FeE, 2003). The price at which the products are sold on the market however, does not reflect this cost. Therefore the land and forest has been used inefficiently. Consequently society as a whole loses out, and the economic welfare declines rather than increases. (1992) argues that there is market defect when the true value of the resource has been undermined. As demonstrated economically in the first section of this study, this is exactly the case in Madagascar.

The principles of free markets are based on the effective use of resource allocation. The problem is that rather than internalising the true cost of the commodities and passing it on to the market, QMM treats the social costs as external costs which are left for the local community to pick up. As a result, the local community absorbs the price differences that should have been passed on to the market, hence the decline in economic welfare. Consequently, the long term economic viability is not improved, and this destroys the proposition of sustainable development.

## 3.3 Moral justice and rights

This section explores the ethical framework of QMM project at the individual level. We will look at the humanitarian impact of the project, the land ownership issue, the application of individual freedom and justice, and individual consent.

Rawl's principles of distributive justice (Velasquez, 1992) will be used here to evaluate whether the outcome of the project is fair and equitable.

First, the principle of equal liberty is immediately infringed as people living in the area will be expropriated. It should be noted that these people have not necessarily consented to the project, but are more likely to be involuntary stakeholders (Szablowski, 2002). QMM's proposal (SEIA) mentions the provision of compensation, but according to Friends of the Earth (2003), the value and extent of this compensation is not defined.

Expropriation raises issues of land ownership. The World Bank land reform of 2003 stresses the importance of land ownership as an essential ingredient to economic development. In addition, the Bank's Operational Directive 4.30 of 1980 on involuntary resettlement stipulates that its beneficiaries "ensure that the population displaced by a project receives benefits from it." (Quoted in Szablowski, 2002). Szablowski gives an example of a mining operation in the Peruvian Andes, where the government and the mining company worked together to issue land rights to each individuals, then proceed to the trading process. The scheme did not go as planned, but the intention was there. In the case of the mining project in Fort Dauphin, there was no mention of land ownership in any of the documents reviewed for this study. The

Lockean principles of liberty and rights to property, also echoed by Rawls are either absent or violated.

Rawls' principles of social and economic difference accept that there will be inequality in a productive society. However, such a difference should imply an automatic redistributive justice to those who are least advantaged by the system. The project perpetuates the increase of inequality between the rich and the poor locally and universally. The rich are the shareholders and the direct employees whose net benefits are not affected by the social costs. We demonstrated earlier how the local community absorbs the costs. The rest, by definition of the loss of economic welfare, become the needy - those who are worse off than before. A violation of the principles of fair equality of opportunity is reflected through unequal return of equity, but also through the different level of remuneration of locals and foreign staff. Some economists argue that it is impossible to bring the local level of salary to that of the incoming foreign incumbent as it will upset the existing local balance. This can be seen as a relative ethical argument.

Both Rio Tinto and the World Bank agree on the need for compensatory justice in the case of the damage caused by mining projects. This principle holds that when an entity causes harm on another entity, it is the duty of the harming entity to provide some form or restitution to the wronged entity.

QMM promises full restitution of the land to its original state, to plant fast growing tree species (Eucalyptus), and to maintain limited zones of conservation within the mining area. QMM also offers compensation to the displaced community. The problem with compensation in this case is that the loss is irreversible, and the benefits from the operation will not last beyond the life of the project which is 60 years. This raises the debate on the rights of future generations, and John Rawls once again argues that the theory of distributive justice should prevail. In his views, justice requires that we hand over to our immediate successors a world that is not in worse condition than the one we received from our ancestors (Velasquez, 1992). This scenario is impossible to deliver for any resource depletion projects. From this perspective, it is morally unethical to proceed with the mining project.

## 4 Managerial implications: balancing liberty and justice

The paradox of shareholders value and stakeholders value is pertinent in this case.

Rio Tinto is demonstrating a proactive and powerful social and environmental commitment through its principles of values and standards for success (Kapelus, 2002; Wheeler et al, 2002). The slogan "Global Citizen, Local Partner" shows strong corporate citizenship intent. In the case of Madagascar's mining project, Rio Tinto did what it said it would do. It undertook the

Social and Environmental Impact Assessment, it consulted the local community, it is contributing to the community through philanthropic activities, and it employs local people.

Critics raised by NGOs such as Conservation International, Friends of the Earth and WWF on the SEIA are based on the validity and reliability of the findings. These criticisms highlight the minimalist approach of responsibilities taken by Rio Tinto. For example, a consultation of the local community took place, however FoE disputes the size and quality of the sample (FoE, 2003).

It is clear from the opening statement of *the way we work* (Rio Tinto, 2003) that the company's primary concern is return for shareholders. As there are limited value added elements to the extracted resources, cost cutting is the primary drive to increasing profit margins.

> "Rio Tinto is in business to create shareholder value by finding and developing world class mineral deposits and operating and eventually closing the group's operations safely, responsibly, and efficiently. To do so, the group takes a disciplined and integrated approach to the economic, social and environmental aspects of all its activities." (Rio Tinto, 2003)

The question for Rio Tinto is therefore how to increase profit margins ethically. At present, Rio Tinto proclaims universalist values in *the way we work*. In practice as evidenced from the analysis in this study, it delivers a communitarian if not minimalist approach to its triple bottom line responsibilities (Wood and Logsdon, 2001). So even if some of the activities are philanthropic, the resources allocated to these activities can be described as minimal relative to the overall benefit of the operations. What seems to be a significant resource for a poor country could be insignificant for Rio Tinto. Some UK banks and corporations have adopted a *one percent* of gross profit system for community giving in an attempt to establish consistency.

Conservation International (2004) is concerned that Rio Tinto is trying to be all thing for all people as it undertakes its social and community investment programme in Fort Dauphin. Adam Smith's moral sentiment proclaims the principles of duty of care - looking after the needy as part of the firms' responsibilities. Because of the failings of local governments to instigate a system that sustain the rights of liberty and justice, the responsibility to look after the needy falls upon the investing company (Reed, 2002). Investing in the community is a tangible benefit to the local community. Rio Tinto should ensure to make this a just compensatory activity, and use the community investment programme as a benefit redistribution vehicle.

Rio Tinto could become a true local partner and drastically improve its negative public relations records through its work in Madagascar. Unfortunately, but focusing on the profit margins rather than the overall benefit for the company as a global citizen, it has already sent a negative effect. It needs to review and improve its utilitarian and ethical propositions to Madagascar and

the local community, so that perceived benefits can be seen as equitable. This does not require a lot of resources to deliver, however it requires commitment from Rio Tinto managers to look at this operation as a local partner, and to move away from the minimalist principles of negative responsibilities or avoiding doing harm; towards true corporate social responsilities, or doing well by doing good (Cragg et al, 1995).

# 5 Conclusion

Direct investment should benefit the host country, however this is not always the case for extractive ventures, as the net loss is often greater than the gain (Reed, 2002, Wheeler et al, 2002, Szabloski, 2002). The case of the mining in Madagascar not only pays a high price in terms of loss of unique biodiversity, but also committed future generations to further foreign debt for a meagre 20% stake of the operation. There is no long term economic viability as the firm will leave the region once all resources have been depleted, the skills gained are not readily transferable, and the area will have lost its reputation as a tourist destination.

The bridge between Rio Tinto's strategic intent on becoming "global citizens, local partners" and the implementation of this at a local level is yet to be built, as this case study demonstrates the failures to do so at all three bottom lines: economic, social and environmental.

Ethical relativism is an important aspect facing global corporations, and this is where Rio Tinto's *the way we work* faulters in relation to ethics. What values to adhere to, the local ones or the hypernorms? It is precarious for managers to define whether the local norms are unsuitable to protects the values of rights and justice, and when to revert to hypernorms - the basic rights and obligations of human moral agents (Wood et al, 2001). In the case of the mining project in Fort Dauphin, a Kantian approach to universalism helps clarify the ethical issue: If Rio Tinto were the Malagasy government, would it have accepted the deal? And concerning universal justice and the treatment of all people as equal, would such project have been allowed to proceed in any western countries, for example Pennsylvania? And why are Rio Tinto and the World Bank bypassing the principles of liberty and land ownership in relation to this project?

This paper highlights the ethical dimension of the activities of extractive industries in heavily indebted countries, and adds to the body of case studies on the subject. The analysis has been undertaken from a business perspective, which diverts from the traditional philosophical approach to the study of ethics and hopefully provides practical insights for companies.

# 6 Appendix 1: Managerial implication for Madagascar and the World Bank

## 6.1 Malagasy Government: The role of the state

The Malagasy government as a project partner who invited the Rio Tinto into the country has a duty of care to the community and the country as a whole. It should seek to ensure that the benefits from the venture are distributed fairly so that those most affected are also those who get the most benefits.

The Malagasy government also is responsible in ensuring that Rio Tinto honours its contract and does not inflict further harm to the community. Since Rio Tinto is compared to Shell on its community relations records (Wheeler et al, 2002), the task in hand for Malagasy leaders to hold Rio Tinto into accounts is challenging.

The dilemma of use of resources for the welfare of the people living now or for future generations is acute for the Malagasy government. Extreme poverty dictates the need to find immediate solutions, hence the spiraling debt and sale of assets in Madagascar. Rawl's concept of justice and fairness in relation to future generations which stipulates that we should be handed a world that is not worse than what we inherited, is in principle a reflection of growth or betterment (Velasquez, 1992). In practice, such a concept is unrealistic to adhere to as the use of a resource to generate wealth induces the need for transformation, which implies an element of destruction. Any resource depletion and increase of debt will become liability on the future generations, unless they were used efficiently and effectively to generate increased social and economic welfare.

A practical and ethical approach to decision making process for the government of Madagascar is to use the utilitarian approach of cost-benefit analysis rigorously. The government should assert its autonomy where possible, and make greater use of fiduciary agents such as NGOs, partner country leaders or international institutions to add leverage for maximum bargaining power.

## 6.2 World Bank: Fiduciary role

The World Bank's role as lending organisation provides it with the power to hold both the Madagascar Government and by implication Rio Tinto to account in ensuring that the project delivers benefit to the country. However, we reiterate that the Bank should not have provided the financing of this venture due to the non viability of the investment.

The Bank's structural adjustment prescriptions have been criticised by various economists (Stiglitz, 2001, Reed, 2002). It is argued that the economic development framework prescriptions and the speed at which the markets in developing countries have been liberalized is inappropriate, as these resource-based countries do not have the mercantile agility of the developed countries.

The World Bank also needs to send a consistent message in relation to its land rights policies. On the one hand its land reforms (World Bank, 2003) emphasises the importance of indigenous land ownership, and on the other hand its growth strategy pushes population displacement (Szablowski, 2002).

# 7 Appendix 2: Madagascar data profile

| Click on the indicator to view a definition | 1998 | 2001 | 2002 |
|---|---|---|---|
| **People** | | | |
| Population, total | 14.6 million | 16.0 million | 16.4 million |
| Population growth (annual %) | 3.1 | 2.9 | 2.8 |
| National poverty rate (% of population) | .. | .. | .. |
| Life expectancy (years) | .. | .. | 55.5 |
| Fertility rate (births per woman) | .. | .. | 5.2 |
| Infant mortality rate (per 1,000 live births) | .. | .. | 84.0 |
| Under 5 mortality rate (per 1,000 children) | .. | .. | 135.0 |
| Births attended by skilled health staff (% of total) | .. | .. | .. |
| Child malnutrition, weight for age (% of under 5) | .. | .. | 33.1 |
| Child immunization, measles (% of under 12 mos) | 46.0 | 55.0 | 61.0 |
| Prevalence of HIV (female, % ages 15-24) | .. | 0.2 | .. |
| Primary completion rate, total (% age group) | 26.4 | 36.1 | 40.9 |
| Primary completion rate, female (% age group) | 26.4 | 36.7 | 41.5 |
| Net primary enrollment (% relevant age group) | 64.5 | 68.6 | .. |
| Net secondary enrollment (% relevant age group) | 11.5 | .. | .. |
| **Environment** | | | |

| | | | | |
|---|---|---|---|---|
| Surface area (sq. km) | | 587.0 thousand | 587.0 thousand | 587.0 thousand |
| Forests (1,000 sq. km) | | .. | .. | .. |
| Deforestation (avearge annual % 1990-2000) | | .. | .. | .. |
| Freshwater resources per capita (cubic meters) | | .. | .. | 20,502.5 |
| CO2 emissions (metric tons per capita) | | 0.1 | .. | .. |
| Access to improved water source (% of total pop.) | | .. | .. | .. |
| Access to improved sanitation (% of urban pop.) | | .. | .. | .. |
| **Economy** | | | | |
| GNI, Atlas method (current US$) | | 3.7 billion | 4.2 billion | 3.8 billion |
| GNI per capita, Atlas method (current US$) | | 260.0 | 260.0 | 230.0 |
| GDP (current $) | | 3.7 billion | 4.5 billion | 4.4 billion |
| GDP growth (annual %) | | 3.9 | 6.0 | -12.7 |
| GDP implicit price deflator (annual % growth) | | 8.4 | 7.3 | 15.4 |
| Value added in agriculture (% of GDP) | | 30.6 | 28.6 | 32.1 |
| Value added in industry (% of GDP) | | 13.6 | 14.7 | 13.3 |
| Value added in services (% of GDP) | | 55.8 | 56.7 | 54.7 |
| Exports of goods and services (% of GDP) | | 21.5 | 29.1 | 16.0 |
| Imports of goods and services (% of GDP) | | 29.3 | 32.3 | 22.6 |
| Gross capital formation (% of GDP) | | 14.8 | 18.5 | 14.3 |
| Current revenue, excluding grants (% of GDP) | | 10.2 | .. | .. |
| Overall budget balance, including grants (% of | | -3.2 | .. | .. |

| | | | |
|---|---|---|---|
| GDP) | | | |
| **Technology and infrastructure** | | | |
| Fixed lines and mobile telephones (per 1,000 people) | 4.2 | 13.3 | 14.0 |
| Telephone average cost of local call (US$ per three minutes) | 0.1 | 0.1 | 0.1 |
| Personal computers (per 1,000 people) | 1.8 | 2.6 | 4.4 |
| Internet users | 9,000.0 | 35,000.0 | 55,000.0 |
| Paved roads (% of total) | .. | .. | .. |
| Aircraft departures | 18,300.0 | 19,300.0 | 19,300.0 |
| **Trade and finance** | | | |
| Trade in goods as a share of GDP (%) | 32.9 | 46.1 | 44.0 |
| Trade in goods as a share of goods GDP (%) | 60.0 | 98.5 | 91.2 |
| High-technology exports (% of manufactured exports) | 18.2 | .. | .. |
| Net barter terms of trade (1995=100) | 118.0 | 148.0 | .. |
| Foreign direct investment, net inflows in reporting country (current US$) | 16.6 million | 93.1 million | 8.3 million |
| Present value of debt (current US$) | .. | .. | 1.4 billion |
| Total debt service (% of exports of goods and services) | 14.7 | 5.2 | 9.9 |
| Short-term debt outstanding (current US$) | 229.6 million | 239.2 million | 231.4 million |
| Aid per capita (current US$) | 33.0 | 22.9 | 22.7 |
| **Source: *World Development Indicators database*, April 2004** | | | |

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