

Does the Principle of Compensation Provide a Solid Basis for Establishing Corporate Environmental Responsibility: A Case Study of Madagascar's Mining Industry

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Abstract

The mining sector has been criticized for its lack of environmental responsibility, but a certain amount of progress has been evident. At the same time, a number of developing countries have opted for an environmental management framework underpinned by the principle of compensation. Even though this principle is closely aligned to corporate social responsibility, it does not appear to represent the most effective way of achieving corporate social responsibility. Based on a case study in Madagascar, we examine the application of the principle within a mining project and show that its inadequacy stems from failing to consider the population's response to the actions taken by companies. In our study, the principle of compensation was strictly applied, but the local population began to clear the forest once the mining project was underway. Our findings hence suggest that corporate social responsibility in this kind of context would be more effective if it were based on a stakeholder approach. In addition, our case study sheds new light on how the stakeholder approach should be interpreted.

Key Words: Compensation, Environmental Responsibility, Mining Industry

Introduction

Over the last decade, Madagascar has experienced a considerable growth in its mining industry. As Reed (2002) underlines, this is a key sector for the development of the economy. Since the beginning of 2000, new legislation has compelled mining companies to obtain an exploitation licence. During this time, the government also launched a nature conservation strategy. This double thrust has led to a tension between the desire to protect the environment and the desire to develop the mining sector. Originally, the State department for Energy and Mining was responsible for defining exclusion areas. The Commission Interministérielle des Mines et des Forêts (Interministerial Committee on Mines and Forests) was also created in 2004. Its role was to prevent any overlapping between areas designated for the mining sector and areas designated for the protection of nature.

In spite of these arrangements, there exists a 33% overlap between mining concessions and protected areas (Cardiff & Andriamanalina, 2007). This illustrates the inherent conflict between exploiting natural resources and conserving the environment. The lack of an effective policy framework to solve this conflict reinforces the importance of a mining sector corporate responsibility towards the environment, especially as the sector's impact on the environment is significant (Walker & Howard, 2002; Hamann & Kapelus, 2004). This is true for precious stones (Duffy, 2005), graphite mining (République de Madagascar, 2003) and other mining operations (Friends of the Earth, 2004).

However, in this context what do we mean when we say that a company should be responsible? Is it simply to comply with the legal framework that the government has put in place to reduce the negative effects of its action? Or is it to compensate for these negative effects? Does it mean interacting with all

stakeholders, including local people, to define the rules that will be applied? And of course, there exist competing theories of corporate social responsibility (Garriga & Melé, 2004).

In our case study we analyze an initial conception of corporate social responsibility based on the application of the principle of compensation in relation to the damage caused by the activity of a company. In Madagascar the law makes provision for companies that want to obtain an exploitation licence, and according to the category of licence the company must carry out an environmental impact survey. The results of this survey determine if financial compensation should be arranged and if money transfers should be made to organisations for environmental protection and/or local communities. The principle of compensation therefore corresponds to a compensatory amount paid to organisations for environmental protection and/or local communities for the damage caused by the activity of a company. This amount is based on an estimated value of the environmental damage. The principle of compensation is not new, and economists have discussed it extensively (Kaldor, 1939; Hicks, 1940; Arrow, 1951 for origins; Kanbur, 2003; Cernea, 2003, for a recent discussion). Despite the conceptual inconsistencies noted in the initial discussions (see Arrow, 1951; Scitovsky, 1951; Mishan, 1962; and Stringham, 2001 for a more recent assessment), the application of this principle for development projects is often advocated (Bruce & Harris 1982, Little & Mirrlees, 1990). It has also acquired a new meaning with the arrival of the principle of ecological compensation (Rundcrantz & Skärbäck, 2003; Fengnian, 2006; van Noordwijk & Leimona, 2010). According to Stiglitz (2007), it could be used to regulate multinational companies by requiring them to assume their responsibilities.

We demonstrate that applying the principle of compensation is inadequate,

and this is supported by previous studies. Lea (1999), for instance, argues that such a principle runs the risk of generating excessive claims by stakeholders, whereas Broadhurst (2000) suggests that public policies are more suitable for regulating damage, as the assessment of the compensation is too complex to apply to corporate responsibility. In fact most of the studies focus on the level of compensation, either for development projects and displaced populations (Cernea & Mathur, 2007) or for environmental damage (Wende et al., 2005; Moilanen et al., 2009; Sun et al., 2013), with recurrent compensation being paid out on large projects such as highways (Kuiper, 1997; Cuperus et al., 2001), dams (Zheng & Zhang, 2006; Penz et al., 2011; Yu & Xu, 2016) and railways (Villarroya & Puig J., 2013).

Our case study highlights another disadvantage. We show how the behaviour of a local population changed after a mining project was initiated. We reveal that it is not so much financial compensation which causes this change in behaviour, but the behaviour of the companies themselves. The perception by community members that environmental protection is necessary can be affected by the actions of a company. Our case study hence gives credence to a reinterpretation of the stakeholder approach developed by Wicks et al. (1994), and Buchholz and Rosenthal (2005). Corporate responsibility must involve a relationship with community members, and this relationship must take into account any potential effects on stakeholder behaviour. Relations with stakeholders cannot be resolved through a compensation mechanism. Our case study emphasizes that even though a level of compensation may be deemed sufficient, applying the principle of compensation has led to unexpected changes in the behaviour of local populations, and this behaviour does not support environmental sustainability. Indeed, financial compensation is based on a rights rationale which proves inadequate when faced with the real issues of environmental protection. In particular, financial compensation does not take into account the changing behaviour of local community members vis-à-vis environmental protection. Behavioural economics, with its links to psychology and neuroscience, offers a new type of economic analysis that endeavours to improve our understanding of human behaviour (Camerer et al., 2011). Within the behavioural economics movement, economists and psychologists have pointed out that people's behaviour is often a reaction to other people's behaviour (Rabin, 1993; Camerer & Thaler, 1995; Cherry, 2001; Blanco et al., 2011), and that behaviour is socially contingent (Triandis, 1989; Nyborg et al., 2006; Di Paolo et al., 2008). They have also underlined that an external intervention via financial incentives or punishments may reduce intrinsic motivation (Deci, 1971, 1999; Titmus, 1971; Gneezy & Rustichini, 2000; Frey & Jegen, 2001; Bowles, 2008; Wrzesniewski et al., 2011, among others). We use behavioural economics to demonstrate how the stakeholder approach should be applied.

In accordance with Siggelkow (2007), we consider that the purpose of a case study is to illustrate a theoretical hypothesis. Our theoretical hypothesis is that stakeholders (the local population) interpret the behaviour of a company towards the natural environment in a way that modifies their own behaviour towards the natural environment. This hypothesis is linked to symbolic interactionism (Blumer, 1986): the value of things, for example, the natural environment, is derived from the interactions that individuals have with others, for example, a company. The value of things may evolve according to the interactions, and more specifically, the interpretation of the others' behaviour. As a result, and for this reason, the principle of compensation is largely inadequate in solving environmental

problems. Indeed, the principle of compensation is based on a monadic viewpoint of ethical decision-making. It advocates financial compensation for the damage caused to the natural environment, but it does not take into account the effects produced by the actions of the company on the stakeholders (the local population). Furthermore, financial compensation may lead to the assumption that the natural environment has an instrumental value, which reduces its intrinsic value and hence affects its overall value to the stakeholders. Therefore, corporate social responsibility should be combined with a stakeholder approach that takes into account the impact corporate actions have on the value of things to stakeholders and their potential to modify the behaviour of these stakeholders.

In the first section we present the case study i.e. the general context and the geographical area under study. In the second section we present the methodology. In the third section we set out the progress of the mining project and the financial compensation mechanism. In the fourth section we use the findings from our interviews to present how the behaviour of the villagers in the area changed during the project. In the fifth section we discuss our findings with regard to the stakeholder approach and more generally, moral theory.

Case study

Our aim was to analyze a nickel and cobalt mining project run by Sherritt Ambatovy in the town of Moramanga in the centre of Madagascar. Rather than focus on the site of the mine, we looked at the construction of a pipeline carrying crude ore from Moramanga to the port of Toamasina (the capital of the Atsinanana region in eastern Madagascar). We chose to examine the passage of the pipeline through the town of Andasibe as this town possesses certain characteristics.

General context

Madagascar is ranked 154th out of the 188 countries on the Human Development Index (UNDP, 2015). In total, 76.5% of the population lives on less than \$2 per day (INSTAT, 2010). In this context, companies involved in development projects have a huge responsibility to meet the expectations of both the population and the government. This responsibility is all the more pressing since the Malagasy government depends in large part on foreign direct investment to promote the country's development (Cocks, 2005). In the late 1990s, the government launched a poverty reduction policy through the promotion of economic growth. Foreign direct investments form the cornerstone of this policy (Sarrasin, 2006), which was conceived as a way of simultaneously reducing poverty and environmental damage. Indeed, the loss of forest area and biodiversity has been blamed on local populations, due in particular to a low level of agricultural productivity that forces people to constantly look for more farmland, and hence to stray into and clear forest land (Cleaver & Schreiber, 1998). The policy was a means to halt a vicious circle of poverty-environmental damage by enabling people to find jobs on major projects financed by direct foreign investment. This argument is routinely presented to national governments by international funding institutions such as the World Bank and companies seeking to invest. The policy design gives foreign companies considerable room to demonstrate social responsibility, and this corporate-responsibility-driven development framework has been applied to the mining sector. The World Bank, with Malagasy government approval, has made the mining sector in Madagascar the key instrument for Integrated Growth Pole programmes (Mission Economique de

Tananarive, 2007) in regions with good mining potential. Integrated Growth Pole programmes are development programmes based on the leading industries in each of a country's regions. They aim to produce development in a region, which when combined with the development occurring in all the other regions, is expected to lead to national development. The mining sector generates only a small proportion of national wealth (4% of GDP), but the Malagasy development plan predicts a figure of 30% in the future (Plan d'action Madagascar 2007–2012). Our case study therefore focuses on the mining sector, and in particular, on one of its largest ongoing projects.

Geographical area of study

Our case study is located in Andasibe, 138 km east of Antananarivo, the capital of Madagascar. It was one of the first towns in Madagascar to benefit from the implementation of a resources conservation programme which has been in operation since the colonial period. Andasibe has two protected areas: the Special Reserve of Analamazaotra and the National Park of Mantadia. According to the town's development plan (Commune rurale d'Andasibe, 2007), these two protected areas occupy a surface area of 8,312 hectares (810 hectares for the special reserve and 7,502 hectares for the national park). The two protected areas are managed by Madagascar National Park, a parastate structure responsible for managing protected areas in Madagascar. They comprise more than one thousand species of fauna and flora, and exhibit a very high rate of endemism (close to 77%). There are 140 species of orchid alone. In terms of fauna, there are 14 species of lemurs, 113 species of birds, 53 species of reptiles, 260 species of insects and 81 species of amphibians. The rate of endemism is very high for certain species, like amphibians (80%) and lemurs (100%) (Holloway, 2000).

All this makes Andasibe one of the main destinations for nature tourists/ecotourists and it is number three on the list of protected areas most visited by foreigners in Madagascar (ATW Consultants, 2009). The site also constitutes an important area for local tourists and plays a major role in raising awareness about environmental protection for groups of children who frequently come on school visits. There are actually more local visitors than foreign visitors, and this mix of local and foreign visitors has made Andasibe the second most visited town in Madagascar (Ministère de l'Environnement et des Forêts, 2009). Part of the admission fees to the protected areas (50%) goes directly to the town and must be used for micro project funding.

Cultural features of the area and implementation of the natural resource management programme

Like other rural areas in Madagascar, the agricultural sector dominates the economic activities of the town. Rice cultivation is widespread, as is the case for nearly every rural area in Madagascar. Most of the time, cultivation takes place on poor quality land and slash-and-burn land (tavy according to its local name), occupying about 90% of all agricultural land. There are also other crops, such as sugar cane, coffee and bananas. The practice of tavy for rice cultivation, however, represents a major risk of damage to protected forest areas (Aubert et al., 2003). This practice must of course be viewed in the light of the socio-economic context where it is exerted (Green & Sussman, 1990; Jarosz, 1993; Ganzhorn & al., 1997; Kull, 2000; UNDP et al., 2000).

Two key points arise: first, rice remains the staple food for the population and is eaten by virtually all Malagasy people (most households grow rice); secondly, protected areas occupy

significant space, which reduces the area available for agriculture. Arable land covers an area of 3,996.55 hectares (Commune Rurale d'Andasibe, 2008), whereas the total area of the town is 363 km², meaning that agricultural land accounts for only 11% of the total area. It should be noted that Andasibe is in a fairly mountainous area and there is little suitable land for rice cultivation. The practice of tavy, although essential for the survival of the population of that locality, is a major risk for the sustainability of forests and protected areas, and the resources they contain.

To prevent the encroachment of agriculture onto protected areas, and according to the framework of the GELOSE law (According to Order no. 96-025 of the September 30, 1996 Act, local members of the population, being members of an association, become local institutions - CLB or VOI for Vondron' Olona Ifotony in Malagasy - with whom central government can draw up contracts that transfer management for certain natural resources), five natural resource management contracts were implemented in Andasibe and its surrounding area. These contracts represent a total area of 12,930 hectares, which is added to the 8,312 hectares of special reserve and national park. This additional protected land surrounds the special reserve and the national park, and local people are involved in its management. The purpose of these agreements is to prevent any encroachment, but land assigned under the natural resource contracts also hinders opportunities for farming.

To stop people farming in protected areas, natural resources management contracts, like almost all contracts of this type in Madagascar, are based on the cultural traditions of the local population, in particular, the dina mechanism (see for instance Fritz-Vietta et al., 2011 for other traditions that apply to natural resource conservation). The dina mechanism is a method for regulating the use of the natural resources on a territory. Traditionally, the village chief is the regulator. Regulation is specific to each village, but in an attempt to avoid too much resource degradation, there are overall similarities regarding restrictions of use. Contravening the restrictions is punishable by a sanction, which is again specific to each village, but which is generally a financial penalty. Natural resource management contracts implemented in the area under study follow this tradition. However, it is no longer necessarily the village chief who acts as regulator and enforces the sanction, but the entire population who implement the contract and who delegate its management to a small group of people.

Methodology of the study

We adopted a qualitative approach which relies on a contextual understanding and a thick description of behaviours. Thick description is understood here as the fact that behaviours cannot be interpreted outside the context in which they occur (Tracy, 2013). We hence used an interpretative qualitative research method (Geertz, 1973). We also conducted the study in three stages to ensure that our interpretation would be as robust as possible.

The first stage involved an initial contextualization based on secondary information (Communal Development Plan, etc.) i.e. we obtained historical information about the town. The purpose of this first stage was to gather information in order to have a clear insight of the local context compared to the national context. We collected documents from decentralized administrative bodies (town hall, etc.). During this stage we were able to trace the history of the area in relation to mining.

The second stage involved the actual survey, which we car-

ried out by staying on site for a period of one month (October 2009). We were able to collect qualitative data by interviewing local officials and key conservation actors (mayor of Andasibe, head of fokontany -the smaller territorial administrative unit-, people in charge of associations, etc.). These interviews were conducted with the aim of establishing an initial inventory of the population's behaviour with regard to natural resources. To the extent that the overriding objective was firstly to gain historical information about the area, and secondly, to have an idea of the population's perceptions of the current situation and problems related to the conservation of natural resources, we developed a semi-structured interview guide. The topics covered in the interviews were the state of natural resources and their level of degradation, as well as the behaviour of local people and the reasons for this behaviour. We were able to gain a rudimentary sense of this behaviour from the interviews.

The interviews were supplemented by interviews with the local population. In total, 50 formal interviews were conducted. None of these interviews were recorded because we were aware that local people might have been afraid that their statements would be used against them if they came to the attention of local authorities. We did not therefore take handwritten notes during the interviews, but we summarized the discussions once the interviews were finished. To ensure that interviewees could speak as freely as possible, we explained that the contents of the interviews would not be disclosed to the leaders of environmental protection organizations and/or local authorities. The interviews focused on the issues faced by people and how they were coping with these issues. During the interviews we asked questions about their environmental practices and what had changed for them since the arrival of the mining project. Furthermore, information was verified by onsite observations where necessary. The conflicting points of view of the local officials and the local population led us to propose our interpretation of the situation as described in the fourth and fifth sections.

Finally, a third stage of the study involved a second period on site (January 2011) to supplement and update the previously collected information. The aim of this third stage was to look at any changes to the situation or to the behaviour a year later. We conducted several interviews with local officials and local people, as well as a field observation of the situation, especially the level of degradation of resources compared to the previous visit. This is represented visually because we were unable to take accurate measurements. The interviews focused on changes, especially in behaviour, for just over a year. This third stage was important to understand the non-temporary nature of change in behaviour.

Mining in the town

The goal of this section is consider the mining history of the area under study. The town's mining past is important in our study because people have become accustomed to mining. We therefore cannot simply interpret people's reactions to the mining project as a response to something new and outside their usual experience. Instead, we must understand their specific response to this mining project, and not to mining projects in general. All information used in this section comes from decentralized administrative documents (town hall records, etc.) and interviews with the decentralized authorities (the mayor) and other people in charge of the associations for the protection of natural resources.

Mining in the town has been marked by two distinct periods. In the first period, from the 1940s to the mid 2000s, graphite

mines had an important role. In the second period, the collapse of graphite mining has been offset by the passage of the pipeline for cobalt and nickel ore.

An important mining past

Andasibe is rich in graphite and this is due to its geological formations. The ore has been mined in the town for many years. In 1940, during the colonial era, Arsène Louys Ltd. began mining for graphite. That same year, René Izouard Ltd. also started to mine for graphite. Until 2005, René Izouard mined on average 1,200 tons per year and Arsène Louys, 500 to 600 tons per year. The activity of these companies declined sharply after 2006.

The extraction of graphite requires a large amount of labour, so many people migrated to the area with the hope of finding employment in one of the two companies. In 2005, Arsène Louys employed 150 people from the town, while René Izouard employed 250 people.

Mining has played a major role in the economic and social development of Andasibe, not only through the jobs and training provided, but also through the taxes that the town has received. Thus, in 2003 the town earned 548,656 ariary (1 US\$=2,500 ariary) from mining rights. According to the mayor, this is the last year that the town benefited from these rights. Mining has gradually entered into crisis. The drop in the price of graphite at a global level, along with competition from China (As stated by a manager from Arsène Louys during his interview), has destroyed the mining industry in the region. Arsène Louys significantly reduced its activities after 2006; René Izouard also sharply reduced its activity, contracting its workforce from 250 employees to 14 employees in September 2009. In 2010, the two companies stopped their operations entirely. However, the majority of the laid off workers are now employed by Sherritt Ambatovy on the construction of the pipeline carrying crude nickel and cobalt ore. In addition, at the time of our case study, most of the former employees had found new jobs.

The pipeline for nickel and cobalt and financial compensation

The passage of the pipeline began in early 2004. Sherritt Ambatovy (DYNATEC Corporation at the time) conducted a feasibility study for the nickel and cobalt mining project in the district of Moramanga. The passage of the pipeline caused the project to extend the company's mining footprint to three rural towns, namely Ambohibary, Andasibe and Morarano. After the positive conclusion of the results of the study in 2007, the creation of the infrastructure began. The first phase involved the construction of a pipeline carrying crude ore. As noted above, a large number of the employees from René Izouard and Arsène Louys were hired by Sherritt Ambatovy, which hence reduced the level of economic pressure on these households.

As required by the legislation, an impact study was carried out and compensation was defined for people incurring damage, especially landowners, who were compensated for the expropriation of their land to ensure the passage of the pipeline. At the time of our surveys, only one conflict persisted, over a piece of land belonging to Mitsinjo, an environmental preservation association; this land was part of a reforestation programme. No other land dispute was reported. This suggests that compensation mechanisms were deemed sufficient in the eyes of the landowners.

As well as the financial compensation offered for the expropriation of land, "visible" environmental damage was compensated, for example, in relation to trees that had to be cut down. As such, a local environmental conservation group, the Tarata Vondron'olona ifotony (VOI), received financial compensation

for the pipeline passing through a forest area for which the association could have received funding for an alternative reforestation project. This association was indeed engaged in a reforestation project. With the passage of the pipeline, the project had to be abandoned and the association was compensated for the loss of earnings it would have received if the reforestation project had been implemented. Although differences of opinion between the members of the association exist on the effective use of this compensation, the amount has not been the subject of litigation.

As most of the people in charge of associations for the protection of natural resources have told us, the financial compensation provided by Sherritt Ambatovy has been criticized. In particular, many immediate effects were felt on the environment, such as water pollution and the destruction of rice paddies after sludge carried by the pipeline was buried underground. This environmental damage has not led to any financial compensation.

Given all these elements, and despite there being problems (some pollution has not been compensated and a land dispute persists), the compensation mechanism seems to have counterbalanced the risks of injustice that the population may have felt. All our interviewees agreed that the financial compensation was fair.

Discussion

The impact on the environment would certainly have been reduced if Sherritt Ambatovy had established a more personal relationship with the local people, for example, if it had shown its concern for the environment while explaining the technical constraints. The challenge of this case study derives from a mutual understanding of the responsibilities that have priority over rights. Indeed, rights are not the basis of responsibilities in our case. It is rather responsibilities that underpin rights.

The principle of compensation is based on a conception of justice in terms of rights i.e. local people have the right to be compensated. This principle is in line with much of contemporary moral theory as defined by Anscombe (1958), but also with the principle of compensation in economics (Little & Mirrlees, 1990). Stocker (1976) however stresses that contemporary moral theory leads to the promotion of a petty or schizophrenic moral life, precisely because it forgets that individuals are not discrete atoms with rights, but beings in relationships with each other. The ethics of care (Gilligan, 1982; Tronto, 1993, among others) has also emphasized that an ethics of justice founded on rights does not usually resolve rights conflicts and is particularly inadequate when applied to the majority of ordinary situations. As Baier (1985) notes, in many situations, morality cannot be reduced to a moral theory based on justice.

Our case study perfectly illustrates this issue, and highlights the importance of considering the response of individuals to situations. Indeed, despite the overall compensation that seems fair for the people who have suffered damage, the pipeline project has affected the local population's perception of environmental conservation. Unfairness is perceived in regard to the responsibilities assumed by the various protagonists. As an all-encompassing licence to operate, financial compensation cannot cope with the spillover effects on the behaviour of the local population caused by any difference in treatment in favour of mining companies. The ethical legitimacy of company activities is not a matter of rights and justice: it is also about how companies manipulate the environment, and how the company and its social environment are perceived (Sethi, 1979). Behind this

licence to operate there is the idea that mining companies are not just economic structures, but also social entities, and must exercise their responsibility towards the common good. This can be seen in the social expectations of equality in environmental responsibility. The issue is behavioural. Financial compensation should be a means to compel mining companies to behave responsibly. However, as far as local people are concerned, financial compensation as a tool provides little incentive to go further in the pursuit of a fair environmental responsibility. Justice based on rights is not symmetrical to injustice (see Sen, 2011 for a discussion) because injustice is anchored in responsibilities which are themselves unrelated to individual rights.

The principle of compensation is based on the notion that individuals are motivated only by their interests rather than by intrinsic motivation derived from care and responsibility (Salzman, 2005). Our case study shows the contrary. Furthermore, it demonstrates that intrinsic motivation can be diminished by the behaviour of a company. Corporate social responsibilities should therefore be considered in relation to behavioural issues. Jones (1995) has already stated that the stakeholder approach should be tackled within a behavioural framework. Of course, stakeholder theory has been widely debated and organized under at least three different approaches: descriptive, instrumental and normative (Donaldson & Preston, 1995; Freeman, 1999; Phillips, 2003; Phillips et al., 2003; Freeman et al., 2010) and the implications of this theory for corporate social responsibility have been amplified (Clarkson, 1995; Freeman et al., 2004; Branco & Rodrigues, 2007; Freeman et al., 2010). In particular, two issues that echo our case study have already been raised, those of fairness (Phillips, 1997) and the common good (Argandoña, 1998). From both a normative and an instrumental perspective, our case study contributes three elements to the debate. First, it shows that fairness is a mainstay in the stakeholder and corporate social responsibility framework, but that fairness should not be considered only as a reasonable basis for the distribution of costs and benefits. Fairness is above all interactionist, and behavioural issues are bound up with responsibilities. Second, this result implies that the stakeholder approach must emphasize relational aspects. Wicks et al. (1994), Burton and Dunn (1996), and Buchholz and Rosenthal (2005), in accordance with the ethics of care, have stressed the need to develop the relationship between a company and its stakeholders, not as a relationship of separate entities, but as a whole composed of related components. Our example illustrates that the failure to account for relational implications leads to a neglect of the stakeholders' behaviour in response to a company's actions. Indeed, if a company treats stakeholders as mere outside entities and does nothing more than respects their rights, it ignores the recognition that stakeholders seek and the efforts they are willing to make. This causes corporate social responsibility to break down. Third, Fraser (2001), Honneth (1996), and Fraser and Honneth (2003) emphasize the incompleteness of theories of justice. They note that the focus on rights and the issue of redistribution leaves out an essential element, which is the basis for "good living together" i.e. recognition. The findings of our case study demonstrate that this oversight is harmful because it leads to a response from people who do not feel recognized or whose efforts are not recognized. Therefore, what is at stake in a relational or caring approach toward stakeholders as part of corporate social responsibility is the need for stakeholders to be recognized by the company. As a result of this behavioural analysis, our study hence offers a way forward for establishing corporate social responsibility within a stakeholder framework analysis.

Conclusion

Our case study highlights the fact that the ethics of rights-based justice is not always appropriate. This kind of ethics does not solve certain fundamental practical problems. In particular, the principle of compensation is unable to either address the effects on people's behaviour which have been caused by specific projects or to meet the requirements of corporate social responsibility. Our behavioural analysis hence shifts toward a deeper understanding of the relational aspects of the stakeholder approach from a normative as well as an instrumental perspective. Behavioural analysis could be a new avenue for evaluating corporate social responsibility.

From a normative (and practical) standpoint we can im-

agine that a process of discussion with the population on the economic value of the mining project would have put the need for the project versus the need for environmental preservation into perspective, and hence explained the technical constraints facing the project. These discussions would undoubtedly have reduced the feeling among the local population that there were different levels of responsibility. This type of process does not have to involve an ethics of discussion in the true sense of the term (Habermas, 1981; Appel, 1992), but could have taken the form of an ethical forum (Elster, 2003) in which a particular focus could have been placed on a mutual concern for the environment and a recognition of the efforts stakeholders make. Naturally, the influence of this practical implication on the behaviour of the stakeholders needs to be verified.

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