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Corporate Social Responsibility from an Institutional Perspective - An Illustration of Talvivaara Mining Company

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1 Introduction

“Corporate Social Responsibility” (CSR) is a term used for describing the social and environmental contributions of business activity (Jenkins & Yakoleva 2006), though its specific meaning is highly context dependent (Dahlsrud 2006). Currently, its significance as part of company operations is on the rise, as corporations are increasingly expected to take on social responsibilities beyond their bottom line (Hamann 2003).

In this context, the mining industry is a key topic to consider (Jenkins & Yakoleva 2006), because mining is widely regarded as one of the most environmentally and socially disruptive activities undertaken by business (Peck & Sinding 2003). The CSR activities (or lack thereof) undertaken by mining companies have implications for community relations, company reputation, investor relations, and continuance of production among others (Hamann 2003, Jenkins & Yakoleva 2006). As an illustration, Talvivaara Mining Company, which opened a nickel mine in 2008 in Sotkamo, Finland, in 2011 ended up in the spotlight of Finnish media due to its environmental problems as well as the company’s apparent lack of respect for regulatory procedures and its poor relationship with the local community.

A fundamental business question regarding CSR is why companies such as Talvivaara would act in socially responsible ways. Institutional theory addresses this issue by referring to institutional mechanisms that impose pressures on companies. However, several theoretical frameworks have been suggested, but lack empirical testing (Campbell 2007, Delmas & Toffel 2004).

This study investigates empirically how well institutional theory is suited to explain the CSR activities of a mining company. The objectives of the study are to collate a framework on how a company responds to institutional pressures regarding Corporate Social Responsibility practices and to test the illustrative capacity of the framework through a case study on Talvivaara Mining Company. Talvivaara is a flagship project of the growing mining industry in Finland. Its example in terms of CSR activities hence may have significant implications for the future of Finnish mining (Section 4.1). Also, the company keeps only one operational mine, which simplifies the application of the institutional framework (Section 3.2) for illustrative purposes.

The study addresses the following research questions:

- How well can Talvivaara’s CSR behaviour be understood in terms of the actors and causalities described in the framework?
- Based on the case study, what lessons for the future can be formulated for individual mining companies and the (Finnish) government?
2 Research Methods

2.1 Institutional Framework

A framework on how companies respond to institutional pressures regarding Corporate Social Responsibility practices was collated based on key literary references, more specifically Campbell (2006) and Delmas and Toffel (2004). The theoretical literature on why corporations adopt socially responsible behaviour is scarce (Campbell 2006, Delmas & Toffel 2004), and the references constitute two recent attempts at formalizing the influence of institutions on company behaviour. The papers complement each other, considering both the influence of external factors (Campbell 2006) as well as the moderating effect of internal company characteristics (Delmas & Toffel 2004). Delmas and Toffel (2006) furthermore focus on the stakeholders pressuring companies, whereas Campbell (2006) considers the environmental conditions affecting corporate behavior.

2.2 Case Study Data Collection

Data gathering was carried out by collecting and analysing publications on Talvivaara published by local and national media (Helsingin Sanomat, Kainuu Sanomat, Vihreä Lankka, YLE), environmental government agencies (Kainuu ELY-keskus, Pohjoissuomen aluehallintovirasto, Säteilyturvakeskus, Ympäristöministeriö), Talvivaara Mining Company, environmental interest groups, and individual citizens. These selected publications were online in 2011.

_Helsingin Sanomat_ (HS) is the largest Finnish newspaper, and was hence used to collect a wide introductory coverage of the “Talvivaara case”. The newspaper’s on-line archive was searched for 2011 publications, and all entries containing the search word “talvivaara” were selected for additional scrutiny. Any such publications dealing with Talvivaara Mining Company were noted, yielding a total of 86 entries. Where ever the HS publications referred to external organizations or media sources, a secondary search was run on the 2011 publications of that particular entity (on its web page) using the search word “talvivaara”. Any publications dealing with Talvivaara Mining Company were noted, yielding 74 entries by Kainuu Sanomat, 18 by Vihreä Lanka, 40 by YLE, 4 by the Kainuu Centre for Economics, Transport, and the Environment (Kainuu ELY-keskus), 1 by the Regional State Administrative Agency of Northern Finland (Pohjois-Suomen Aluehallintovirasto), 2 by the Radiation and Nuclear Safety Authority (Säteilyturvakeskus), and 3 by the Ministry of the Environment (Ympäristöministeriö). The web pages of Talvivaara Mining Company were also scanned for relevant information.

Finally, searches were run on Google, the largest and most commonly used internet search engine available (Shannon 2010), using the key word “talvivaara”. On-line blogs and statements concerning Talvivara Mining Company were collected, but on-line discussion forums were not
considered. The search for “talvivaara” yielded 1 170 000 entries, of which the first 200 titles were scanned for relevant entries dealing with Talvivaara Mining Company. Consequently 6 entries were collected, including 1 opinion in writing, 4 blog posts, and 1 petition. Where the identified entries referred to secondary sources, these were also collected, yielding 2 additional blog posts and 1 press release.

2.3 Case Study Analysis

The conceptual validity of the institutional framework was first confirmed by categorizing the collected data according to stakeholder; publications, or parts thereof, identified as concerning actions or opinions by institutional stakeholders (see framework in Section 3.2) were attributed to that stakeholder category. Entries on actions or opinions expressed by Talvivaara were considered as company response to institutional pressures. Throughout the categorizing process, any information identified as describing characteristics of Talvivaara was attributed to the “organization characteristics” section in the framework.

Second, the directions of causality in the framework were investigated. The data entries were scanned for normative statements by stakeholders on what Talvivaara should do (denoted “Pressure” in the framework), expressed motivations on how Talvivaara characteristics influenced the actions and opinions of institutional stakeholders (“Affect”), and statements by Talvivaara on how institutional pressures exerted by stakeholders had influenced the company to adopt certain CSR behaviour (“Response”). The entries were then grouped according to these labels, and the content compared to the institutional framework to confirm how well the data corresponded with the theoretical framework.
3 Institutional Theory of Corporate Social Responsibility

3.1 Corporate Social Responsibility

The term “Corporate Social Responsibility” (CSR) takes on many meanings depending on time and context, and there is no consensus definition (Campbell 2007, Husted & Allen 2006). The World Business Council for Sustainable Development proposes a definition of CSR as “the ethical behavior of a company towards society [...] management acting responsibly in its relationships with other stakeholders who have a legitimate interest in the business” (quoted in Moir (2001)). Campbell (2007) takes a similar stakeholder-oriented perspective, stating that socially responsible corporations must (i) not knowingly do anything that could harm their stakeholders, and (ii) rectify their actions if some harm is discovered and brought to their attention. This definition, in contrast to other definitions, sets a minimum behavioural standard on corporate actions (Campbell 2007). Van Marrewijk (2003) proposes the existence of various levels of CSR, corresponding to intrinsic organizational characteristics and motivations, and Dahlsrud (2006) analyses different dimensions of CSR, concluding that “the challenge for business is not so much to define CSR, as it is to understand how CSR is socially constructed in a specific context and how to take this into account when business strategies are developed”. Thus there exist various interpretations of the concept of CSR.

CSR has in recent years grown in importance due to a global shift in how the role of business is perceived (Hamann 2003). Friedman’s shareholder-oriented argumentation from 1962 (see e.g. ibid) is challenged by public concerns about the sustainability and social responsibility of industries (Jenkins & Yakoleva 2006). CSR calls for a company to respond not only to its shareholder, but also to other stakeholders such as employees, customers, local communities, and the general public (ibid). All in all, little theoretical attention has been paid to why or why not firms adopt environmental management practices that go beyond regulatory compliance (Campbell 2007, Delmas & Toffel 2004). In this regard, most research has so far focused on the connection between CSR and corporate financial performance, and there is a need for paying more attention to institutional mechanisms that may influence CSR behavior (ibid).

3.2 Institutional Framework

Delmas and Toffel (2004) approached institutional pressures from the perspective of strategic management, considering why organizations within the same organizational field pursue different strategies, despite experiencing isomorphic institutional pressures. They proposed a model that links institutional pressures to organizational characteristics in order to explain the adoption of environmental management practices at the plant level. The model describes how stakeholders (governments, customers, competitors, local communities, environmental
interest groups, and industry associations) impose institutional pressures on plants and their parent companies (see Appendix A). Additionally, firm and plant characteristics, including organizational structure, strategic positioning, and performance, affect not only the level of institutional pressure exerted on a plant, but also how plant managers perceive and act upon those institutional pressures. Delmas and Toffel (2004) furthermore discussed an empirical approach for testing the presented framework. This combines both existing publicly available databases and original data from survey questionnaires at the plant level in order to distinguish between “objective pressures” and perceived pressures, respectively. The authors proposed measures of the framework’s constructs, however leaving actual testing of the model for future research.

Campbell (2007) in turn excluded consideration of internal corporate characteristics to focus solely on external institutional determinants; he investigated the external conditions under which corporations are more likely to act in socially responsible ways than not. Campbell performed a literature review on corporate social responsibility and defined CSR in terms of a threshold below which corporations no longer behave in socially responsible way (quoted in Section 3.1). Finally, using literature on institutional analysis in sociology and on comparative political economy in political science, he explored conditions under which corporations are likely to engage in socially responsible behaviour. As a result, Campbell put forward an institutional theory of the determinants of socially responsible corporate behaviour through eight propositions (see Appendix B), arguing that economic conditions affect the probability that corporations will act in socially responsible ways but that this relationship is mediated by a variety of institutional factors. He suggested that responsible corporate behaviour has the potential to improve corporate and national economic performance and hence concluded that decision-makers, corporations, and other stakeholders should support the creation of such mediating institutions.

Based on the two studies, an institutional framework was collated, describing the institutional determinants and interactions affecting CSR. The framework shows how organizational characteristics mediate not only company behavior but also the pressure exerted by institutional entities in the first place. Compared to the original model by Delmas and Toffel (2004), the framework was simplified to consider only one level of company activity rather than both parent companies and plants (Figure 1). This is because the structure and operations of Talvivaara Mining Company, the object of the case study, were, respectively, considered flat and localized enough to allow this simplification without significant loss of generality (see Section 4.2 for further information on Talvivaara). In the framework, institutional stakeholders exert pressure on companies. The magnitude and nature of these pressures depend on the organization characteristics of the company, which also modify the company management’s impression of the external pressures. As a result of the institutional interaction, companies exhibit behaviour that can be either socially responsible or not.
Institutional field
• Community
• Competitors
• Customers
• Educational institutions
• Government
• Industry associations
• Shareholders
• Societal organizations

Pressure

Organization characteristics
• Firm size
• Competitive position
• Level of internationalization
• EHS organization
• Sources of information on CSR practices
• Historical CSR performance

Company behaviour
• CSR management system comprehensiveness
• Management of stakeholder relations

Figure 1: Framework of the institutional pressures regarding CSR behaviour exerted on a company, collated based on Campbell (2007) and Delmas and Toffel (2004). In the framework, institutional stakeholders exert pressure on companies. The magnitude and nature of these pressures depend on the organization characteristics of the company, which also modify the company management’s impression of the external pressures. As a result of the institutional interaction, companies exhibit behaviour that can be either socially responsible or irresponsible.
3.2.1 Institutional Stakeholders

The relevant institutional stakeholders were identified by combining all the factors proposed by Campbell (2006) and Delmas and Toffel (2004), and by extending the latter to consider CSR rather than environmental management only. The list may not be exhaustive, but considers the issue as treated by Campbell (2006) and Delmas and Toffel (2004). The considered factors are, in alphabetical order:

Community pressure: Local communities are often pressing companies to enhance their socially responsible behaviour. The pressure may realize through voting in local and national elections, through activism in NGOs, and by filing of citizen lawsuits against irresponsible company behaviour. Socio-economic characteristics such as income, voting rate, and membership in societal interest groups moderate the power of communities on companies. Companies generally seek to improve or maintain their relations with the community, and to be a good neighbour, and they may opt for increased self-regulation in order to avoid increased regulation by the authorities. This may include adoption of CSR plans or programmes and environmental management systems among others.

Competitive pressure: A company is faced with competitive pressure when other corporations compete with it for customers or market share, for instance. Companies can also try to deprive each other of their respective competitive advantages, for example by contributing to the creation of regulatory or institutional obstacles, such as tariffs and environmental regulations. Intense competition may endanger profit margins and shareholder value, and hence reduce the incentives for engaging in costly socially responsible behaviour. In contrast, companies may also mimic practices adopted by successful firms so as to improve their own performance.

Customer pressure: Customers concerned about company CSR may create pressure on corporations through their purchasing decisions. In this regard, retail consumers show more interest and hence impose stronger pressure than commercial and industrial consumers. As a response, companies can expand their CSR plans and practices, especially to preserve their reputation and the trust of the customer.

Pressure from educational institutions: The world views of corporate managers prove important for how they run their firms, since managers generally want to behave in ways that are deemed appropriate by other managers and significant actors. Managers often learn mental constructs in business schools and through professional publications, and the enhancement of CSR in these instances hence encourages managers to promote socially responsible behaviour.

Government pressure: The government, in its capacity to monitor corporate behaviour and enforce regulations when necessary, has the single most important influence on company behaviour. Here political pressure involves the political support for more stringent regulations whereas regulatory pressure constitutes threat to or actual impeding of company operations. Governments, on one hand, may promulgate and enforce regulations, enhance the reputation of companies adopting CSR practices, reduce information and search costs linked to the
adoption, provide technical assistance to CSR practitioners, provide citizens with access to information about the CSR practices of companies, offer legal standing in court for citizens to sue suspected offenders, facilitate institutionalized dialogue between corporations and their stakeholders, and provide sufficient resources to support these activities. Companies, on the other hand, may resist the imposition of regulations, control regulators for their own benefit, or threaten with capital disinvestment. The development of regulations through consultation and negotiation with business stakeholders however reduces the prerogative for fighting regulation.

Pressure from industry associations: Industry associations may pressure the companies operating in an industry to adopt self-regulation through monitoring their performance, establishing regulatory mechanisms, setting industry standards, as well as educating and motivating organizations regarding the advantages of self-regulation. Membership in trade or employer organizations pushes corporations to develop more long-term views of different stakeholder interests and promotes more sophisticated understanding for how CSR may boost corporate performance in the long run. Industry standards generate corporate peer pressure, but also promote enlightened self-interest, as neglecting the adoption of self-regulation may result in tightened state regulatory intervention. Notably, industry self-regulation should preferably be authorized and supported by the state, since initiatives lacking state support often fail.

Shareholder pressure: Shareholders, as owners of the company stock, may influence company behaviour by monitoring and pressuring company boards, with large share ownership inducing larger power. According to neo-classical economic theory, shareholders are interested in maximizing their expected earnings and give company managers the imperative to maximize profit and shareholder value, leading to opportunistic behaviour at the expense of CSR. In contrast, shareholders interested in responsible investing may also pressure corporate boards to act more responsibly.

Pressure from societal organizations: Different kinds of societal organizations and movements, with an increasing presence in the institutional field, can pressure companies for more socially responsible behaviour. They can achieve this by monitoring corporate activity, publishing lapses in CSR, establishing industrial codes of conduct, directly appealing to corporations, organizing demonstrations, pressuring governments for stricter regulation, and by mobilizing media campaigns to catch public attention. The press plays an important disciplining role by subjecting companies to the constant threat of public exposure. Corporations, interested in avoiding the loss of reputation, may amend their CSR practices as well as monitor and manage their media relations.

3.2.2 Institutional Dynamics

Interactions between stakeholders: According to Delmas and Toffel (2004), the interactions between institutional stakeholders moderate the influence of any individual stakeholder on company practice. Environmental interest groups may for example pressure governments for more
stringent regulation, which causes industry associations to push companies for improved self-regulation in order to avoid tightened government regulation. Campbell (2007) gives additional examples of the influence of stakeholder interactions; industries may push for self-regulation out of fear for public opinion, whereas competitors may push for increased regulation to undermine a company’s competitive advantage. Companies may also threaten governments with capital disinvestment to realize eased state regulation.

Company characteristics: Company characteristics comprehend all corporate attributes affecting different stakeholders’ impressions of the organization in question, including for example public visibility, market share, financial performance, historical environmental records, manager education and world views, company inter-relatedness and dialogue with stakeholders, and membership in industry associations and trade unions. These characteristics influence stakeholders’ perceptions of a company, and consequently the modes of institutional pressure exerted on it. Multinational corporations are for example forced to deal with more numerous stakeholders than national organizations, and hence face higher external pressure with regard to their behaviour. Companies with poor historical environmental records are also often subjected to heightened scrutiny by local communities and regulators.

Company action: Depending on their organizational characteristics and the perceptions of their managers, two companies facing the same institutional stakeholders may experience different levels of institutional pressure and hence behave differently from a CSR perspective. Companies can improve their socially responsible behaviour by complying with regulations and industry practices or voluntary reaching beyond regulatory requirements, participating in government of industry sponsored CSR programmes, adopting CSR policies and management systems, educating their employees, facilitating faster response times to CSR issues, consulting and engaging more effectively with stakeholders, and disclosing larger amounts of CSR information. In contrast, companies may also choose to behave irresponsibly, especially if their financial performance is weak or their competitive position threatened. All in all, large multinationals subjected to public scrutiny and firms with poor CSR records have the most to gain by anticipating and managing external institutional pressures.
4 Talvivaara Mining Company

4.1 The Finnish Mining Industry

The global demand for mineral resources is growing rapidly, especially in fast-growing countries such as India and China, where urbanization and increasing living standards create an unprecedented need for raw materials (Ekdahl 2010). While developing countries are demanding an increased share of ferrous and base metals, developed countries use increasing amounts of high-tech metals on new technology, and the supply of these minerals is critical for future technological innovations (ibid). Simultaneously, the mining industry is challenged to develop more diverse and more sustainable mining technologies (ibid) due to the excavation of lower-concentration deposits and the increased competition for energy and water (GSF 2010).

In the European Union, the Fennoscandian shield is the major prospective region with respect to minerals excavation (Ekdahl 2010). Finnish bedrock contains significant known deposits of many critical metals and minerals, and has considerable potential for the discovery of new resources (GSF 2010). The Finnish ore output has grown exponentially since 2006 (Ekdahl 2010), and the country is globally known as a leading supplier of skills and equipment in the minerals sector (GSF 2010). The minerals industry is expected to form one of the key foundations of the Finnish national economy (ibid), and government projects such as the Green Mining initiative seek to position Finland as a global forerunner in the eco-efficient minerals industry by 2020, promoting materials- and energy efficiency in minerals production as well as minimizing negative effects on the environment and local communities in the whole logistics chain (Keskinen 2011).

4.2 Talvivaara Mining Company

The Talvivaara nickel deposit was discovered in the 1970s in Sotkamo, Finland. At the time, exploitation was judged to be economically inviable using conventional metal extraction techniques. Talvivaara Mining Company Plc bought the rights to the deposit in 2004 and introduced the so called bioheap leaching extraction technique (Talvivaara Mining Company Plc 2009a), becoming the largest mine in Europe to extract nickel, zink, and cobalt using this new method (Suutari 31.12.2011). Production at the mine started in 2008 (Talvivaara Mining Company Plc 2009a).

In its ramp-up years 2007-2008, Talvivaara was celebrated as a flagship project announcing the growth of the minerals industry in Finland (HS 20.11.2011). In the Kainuu region, the mine is a very important employer (KS 30.4.2011). Talvivaara is also the only Finnish mining company operating in Finland (HS 25.1.2011). However, by the end of 2008, the inhabitants of the communities around Talvivaara began suffering from odor and dust pollution, followed
by affected watercourses. During 2010, Talvivaara’s environmental problems grew to endanger the Kainuu tourist industry (HS 20.11.2011), a development that continued throughout 2011.

4.3 Institutional Framework Applied to Talvivaara

The framework (Figure 1) is discussed in three parts: the Talvivaara organization characteristics, the influence of Talvivaara’s characteristics on the institutional stakeholders and their respective pressure on Talvivaara, as well as the actions of Talvivaara.

4.3.1 Talvivaara Organization Characteristics

The Talvivaara mine is a large open-pit mine that produces 30 000 tons of nickel per year (HS 20.10.2011). Talvivaara Mining Company Plc is currently preparing plans for doubling its excavation area (Partanen 1.11.2011, YLE 30.6.2011) and increasing its production to 100 000 tons of nickel per year (YLE 28.4.2011). It also considers the construction of its own nickel refinery, an investment of 200 Million euros (KS 30.4.2011, YLE 20.1.2011). The expansions would triple the amount of Talvivaara employees to 1100-1200 people, which would mean a huge enlargement project on regional scale (KS 30.4.2011).

Currently the Talvivaara mine employs about 450 people (HS 10.11.2011), and indirectly its operations benefit over 1800 employees (Reini et al 2011). The company suffers from a lack of mining engineers and needs additional staff especially to realize its expansion plans (Partanen 12.8.2011). Educational institutions such as Kajaani University of Applied Sciences have started engineering programmes to satisfy the needs of Talvivaara and other mines (KS 6.7.2011, Liimatainen 4.7.2011), the largest and most important employers in the Kainuu Region (Jantunen 12.11.2011).

In the spring 2010, Talvivaara announced its intention to start the recovery of uranium as a bi-product of the bioheapleaching process (Talvivaara Mining Company Plc 20.4.2010). The company signed a contract with Cameco Corporation in February 2011 regarding the selling of uranium, filed for the necessary permits (HS 30.11.2011, YLE 11.8.2011), and is expecting the final permit by the Finnish government in early 2012 (Mainio 9.11.2011a). The construction of necessary infrastructure began in spring 2011 (Paavoseppä 2.12.2011) and uranium recovery tests were performed in the summer (YLE 6.6.2011). The company believes its Cameco-cooperation to speed up the final legal processes (YLE 8.2.2011), and it has filed for speedy consideration of its uranium permit (Kinnunen 14.6.2011).

Talvivaara Mining Company Plc made a profit of 25 Million euros in 2010 (Perttu 17.2.2011). However, the company’s financial performance fell throughout the year, Talvivaara losing 60 % of its share price compared to December 2010 (HS 9.11.2011, KS 28.12.2011). Extended machinery reparations in the spring and autumn reduced the estimated production of nickel for 2011 (Liimatainen 7.4.2011, YLE 7.4.2011), the nickel price fell considerably throughout


### 4.3.2 Talvivaara Influence and Stakeholder Pressure

**Community**: The local communities surrounding the Talvivaara mine have grown increasingly frustrated with the activities of the company (Heikkinen 22.11.2011, KS 11.11.2011). On one hand, dust, odour, and water pollution is bothering the inhabitants (Mainio 9.11.2011b), reducing the value of their land (Mainio 6.12.2011), and affecting the important traveling and tourism industry in the region (Oinaala 20.3.2011). On the other hand, the locals consider themselves betrayed as to the stated estimations of environmental impact when the mine was established in 2005 (Mainio 9.11.2011a, KS 11.11.2011). The plans for uranium recovery cause concern, especially as these were not brought up during the establishment process (Kinnunen 18.1.2011).

Local inhabitant organizations have reported on Talvivaara’s activities to the Finnish police, demanding an investigation as to whether the company has broken Finnish environmental law (Leinonen 2.9.2011, STT 2.9.2011). Private citizens have filed complaints with the Vaasa Administrative Court (Vaasan hallinto-oikeus) (Mainio 29.6.2011), demanded compensations (Heikkinen 22.11.2011), and requested temporary suspension of the mining operations (Mainio 9.11.2011a, Sola 17.11.2011).

The municipality of Sotkamo has pressed Talvivaara to demonstrate that its activities do not affect the surrounding watercourses (Mainio 9.11.2011). It also approved the expansion of the mine on this condition only (Leinonen 31.8.2011). The city of Kuhmo has likewise approved the expansion conditional on the elimination of external pollution. Both bodies also oppose Talvivaara’s plans to treat uranium from external sources in addition to the amounts collected at the mine (Heikkinen 15.6.2011, Mustonen 22.3.2011).

**Competition**: The Finnish energy company Fortum has requested Talvivaara to compensate it for lost water power. Fortum maintains that the water consumption of the mine reduces the water level in the river Oulunjoki, reducing the amount of electricity produced and hence
the company profits (HS 29.11.2011).

Consumers: No explicit consumer pressure has been noted based on the performed data collection.

Educational Institutions: No explicit pressure from educational institutions has been noted based on the performed data collection.

Government: The environmental practices of Talvivaara are monitored by the Kainuu Centre for Economic Development, Transport and the Environment (Kainuun ELY-keskus) (Heikkinen 9.11.2011). Ever since the first environmental problems occurred at Talvivaara, the Centre has pressured the company to reduce its odor pollution and to improve the treatment of its waste water (Leinonen 13.4.2011, Mainio 9.11.2011a, Moilanen 5.6.2011). According to the Centre, Talvivaara operates out of bounds of its environmental permit (Heikkinen 9.11.2011), and has reported the case to the Finnish police, who started an investigation regarding the pollution of the company (STT 2.9.2011). Due to the company’s historical environmental performance, the Centre has tightened its monitoring (YLE 15.12.2011) and also requires a new examination of Talvivaara environmental impact in order to approve the expansion of the mine (HS 20.10.2011). In addition, the Radiation and Nuclear Safety Authority (Säteilyturvakeskus) has presented conditions for issuing Talvivaara’s uranium recovery permit (STT 16.6.2011, STUK 13.6.2011).

Talvivaara’s environmental permit is granted by the Regional State Administrative Agency of Northern Finland (Pohjois-Suomen Aluehallintovirasto). According to the Agency, Talvivaara is currently not fulfilling the requirements of its environmental permit (HS 10.11.2011, Väisänen 22.9.2011). The company’s application in 2007 announced very low expected emissions, why no maximum limits were included in the permit. Now Talvivaara maintains that it has not exceeded the boundaries of its permit, since no boundaries have been set (Väisänen 22.9.2011), while the State Agency points to the current emissions exceeding expected amounts by at least a hundred times (HS 10.11.2011, Liimatainen 13.7.2011, Väisänen 22.9.2011). Ville Niinistö, appointed Finnish Minister of the Environment in June 2011, has criticized Talvivaara for exceeding its own estimated emission levels (Erkkilä 9.11.2011a, KS 11.11.2011) and for addressing its environmental problems too slowly (Laita 25.11.2011, Roslund & Tiri 14.12.2011, YLE 15.11.2011). He maintains that the issues are serious, but that progress has been made and that the mine operations need not to be suspended (Savolainen & Tikkanen 14.12.2011, STT 13.12.2011).

Industry Associations: No explicit pressure from industry associations has been noted based on the performed data collection.

Societal Organizations: Environmental organizations, both nationally and in the Kainuu region, have questioned the operations of the Talvivaara mine (HS 21.11.2011, Mainio 29.6.2011). They are concerned about the company’s environmental problems, and frustrated at its apparent nonchalance towards the environment and the Finnish legislative system (Kin-
They have organized demonstrations (HS 28.9.2011, Leipola 27.9.2011), environmental activists have trespassed on the mine property (HS 21.4.2011, Partanen 21.4.2011), and the company has been threatened by hackers (Anonymous 11.11.2011, HS 14.11.2011). In addition, the Finnish press has questioned Talvivaara’s attitude towards environmental protection, the foundations of its environmental permit, and its slow response to the revealed environmental pollution (HS 10.11.2011).

**Shareholders:** No explicit shareholder pressure has been noted based on the performed data collection. Nevertheless, the Talvivaara management is strongly concerned by the declining profitability and weak share price of the company (Section 4.3.1). Competitive profit margins are a central strategic aim for the company (Talvivaara Mining Company Plc 2009b), and in autumn 2011 Talvivaara announced a redirection of focus from production to profit maximization (STT 7.10.2011b).

### 4.3.3 Interactions Between Stakeholders

The Finnish government is pressured by large companies in the global mining industry, because increased demand for minerals drives multinational corporations to explore the Fennoscandian shield (Malmberg 18.9.2011, Section 4.1). These provide large amounts of jobs in the remote areas of the country (KS 11.11.2011), but also push for eased environmental regulations (STT 1.11.2011). The Ministry of Employment and the Economy has defended the industry in public discussion (Manssila 24.10.2011), and the Minister Jyrki Häkämies has criticized the Minister of the Environment Ville Niinistö for overreacting with regard to the Talvivaara case (HS 18.11.2011).

Throughout 2011, private individuals and local community groups have repeatedly challenged the Finnish government and the environmental regulatory bodies with respect to Talvivaara’s environmental pollution, questioning the transparency and efficiency of the regulation and even demanding closure of mining activities (HS 10.11.2011, Mainio 29.6.2011, Pynnönen 9.11.2011, Sola 17.11.2011). Locals consider themselves betrayed by incompetent regulatory agencies and the dishonest Talvivaara (Ihalainen et al 27.11.2011, Savolainen & Tikkanen 14.12.2011). Furthermore, Finnish citizens have have increasingly questioned the future of the mining industry in Finland; criticizing mining companies and the government for promoting mining at the expense of environmental protection, tourism, and local communities (Amnell 3.8.2011, Arola 31.12.2011, Tiusunen 9.11.2011). The discussion has engaged several communities to oppose local industrialization plans, also outside the scope of mining (Ihalainen et al 27.11.2011, Kinnunen 21.10.2011, Mustonen 2.11.2011).

Both the national and local press have called for stricter monitoring and regulation of mining activities by governmental environmental agencies and local municipalities so as to protect the environment and the tourism industry (HS 10.11.2011). The regional organizations of several political parties have also pressured the agencies on Talvivaara’s uranium permit (HS...

In the autumn of 2011, the discontent expressed by the local communities around Talvivaara led Ville Niinistö, the Finnish Minister of the Environment, to inquire into the activities of the government agencies responsible for the monitoring of Talvivaara (HS 18.11.2011). The investigation revealed that the agencies have correctly performed their responsibilities (Kainuu ELY-keskus 2.12.2011, Laita 25.11.2011, Mainio 6.12.2011, Savolainen & Tikkanen 14.12.2011, Ympäristöministeriö 13.12.2011), but also sparked a discussion concerning the appropriateness of the current environmental regulatory practices (HS 22.10.2011). Talvivaara’s environmental permit application 2007 has been re-evaluated as deficient; the environmental impact was not correctly stated, the local inhabitants were given deficient information, and the responsible governmental agencies lacked the capability and capacity to correctly estimate the environmental impact of the mine (Erkkilä 9.11.2011a, Kinnunen 21.10.2011, Liimatainen 19.7.2011). The latter have now expressed requests for the formulation of stricter environmental regulations (HS 11.12.2011, KS 14.12.2011, Savolainen & Tikkanen 14.12.2011), possibly leading to slower growth in the Finnish mining industry (Ollikainen 4.11.2011, Rönty 21.9.2011).

4.3.4 Company Actions

Ever since the opening of its mine, Talvivaara has been strongly focused on expanding and diversifying its business. During 2011, the company prepared and submitted an application to expand its mining practice (Partanen 1.11.2011), signed an agreement with Cameco Corporation for supplying uranium (HS 30.11.2011, YLE 11.8.2011), obtained the uranium extraction permit of the European Union (HS 30.11.2011), and began construction work on the extraction facilities (Paavoseppä 2.12.2011). The Finnish government is expected to approve Talvivaara’s uranium extraction business in early 2012 (HS 12.9.2011).

According to Talvivaara, the company has striven to minimize its environmental impact ever since the polluting effects of the mine were first noted by the state monitoring agencies (Erkkilä 9.11.2011b, HS 10.11.2011). The pollution of water courses was unexpected due to the novelty of the bioheapleaching extraction technique (ibid), and the company is looking for solutions on how to clean the affected areas (Arola 31.12.2011). In the meantime, it has applied for a renewed environmental permit, requesting to increase its pollution levels up to forty times compared to the previous permit (Mustonen 27.9.2011).

When Talvivaara’s environmental problems featured in national media during the autumn 2011, the company denied having violated Finnish environmental law (Sormunen 3.9.2011), and claimed the issue to be “yesterday’s news” (HS 17.11.2011). It also disputed having violated its environmental permit since the permit does not specify absolute levels for the maximum pollution allowed (HS 17.11.2011, STT 10.11.2011, Heikkinen 9.11.2011). When the permit was granted, such specification was not considered necessary by the Kainuu Center for Economic Development, Transport and the Environment as the company’s estimated
levels of pollution were very low (Laita 22.11.2011, Väisänen 10.11.2011). Talvivaara also forcefully exclaimed against rumours anticipating the closure of the mine by the environmental authorities (Mainio 9.11.2011b, HS 15.11.2011, Leipola 16.11.2011, YLE 15.11.2011b), and the Talvivaara CEO, Pekka Perä, denoted the negative media attention as a political move against the Finnish mining industry (HS 15.11.2011, YLE 15.11.2011b).

4.4 Discussion

4.4.1 Institutional Framework

Based on the case analysis, the institutional framework correctly serves to capture the basic dynamics between institutional actors and their resulting socially responsible behaviour. However, its explanatory potential is limited in terms of institutional scope as well as time.

All in all, the list of stakeholders appears comprehensive. In the case study, especially the local community, the government, and societal (environmental) organizations played a large role in affecting the socially responsible behaviour of Talvivaara. Competitors, consumers, educational institutions, industry associations, and shareholders were not as prominent; however, these stakeholder categories cannot be excluded based on one case study only. Also, the influence of these stakeholders may not have been recorded due to the employed research methods.

As proposed by Delmas and Toffel (2004), the organization characteristics of Talvivaara indeed appear to affect how the mine managers perceive the pressure exerted by the different stakeholders. Talvivaara is a young company, why the organization has little experience on how to handle environmental impact and related requests from stakeholders (Hassi 24.10.2011). The mine managers also seem overconfident due to Talvivaara’s position as an important employer in the Kainuu region, which could explain why the environmental problems and the complaints of the locals were not initially given due attention (Oinaala 20.11.2011). Indeed, as the case escalated in Finnish media, Talvivaara rose to apologize for its conduct (STT 18.1.2012).

Considering influences in the opposite direction, Talvivaara’s organization characteristics have strongly affected the level of pressure that the different stakeholders exert on the company. For example, despite the growing concern among Finnish citizens regarding the country’s mining industry, only Talvivaara was targeted as an explicitly negative influence, demonstrated against, and even reported to the police. Other mines who fulfilled their environmental obligations were not as violently protested against.

Finally, the basic assumption that institutional stakeholders influence the socially responsible behaviour of companies does hold up. The case study shows that Talvivaara originally has focused more on production and shareholder value than the environmental impact of its operations. When the news of the company’s environmental problems spread into national
media the company attempted to scale down the importance of the affairs. These attempts further enraged the public rather than calmed it, and in the end Talvivaara acknowledged the offense, offered its apologies and announced an intent to clean the affected watercourses (HS 31.12.2011, STT 18.1.2012).

The institutional framework does not extensively consider the interaction between different institutional stakeholders, and the graphical representation excludes it entirely. Nevertheless, the interactions between institutional stakeholders proved important for explaining why Talvivaara’s environmental problems grew to capture national political and media attention. Additionally, the Talvivaara case is likely to result in increased environmental regulation in the Finnish mining industry, a fact not captured by the framework’s focus on individual company behaviour.

The case study furthermore demonstrates the importance of clearly defining the stakeholder categories in the institutional framework. In the Talvivaara case, different governmental entities (the Kainuu Centre for Economic Development, Transport and the Environment, the Northern Finland Regional State Administrative Agency, the Ministry of the Environment) at times put forward conflicting opinions and exerted institutional pressures on each other. These interactions could not have been captured by treating all regulatory agencies as a combined “Government” entity, as presented in the generic institutional framework (Section 3.2).

Finally, the framework is static, and hence does not emphasize the interactive and iterative nature of complex organization networks. In the Talvivaara case, the company’s environmental history is the most prominent organizational characteristic that affects institutional stakeholders and causes them to exert pressure on Talvivaara. These pressures consequently push Talvivaara to certain CSR behaviour, which then repeatedly triggers a response by the institutional stakeholders. Hence the 2011 events can only be understood in terms of an iterative loop featuring stakeholder and Talvivaara activities, and the static institutional framework alone thus offers limited insight into dynamics of the case.

4.4.2 Learnings for the Mining Industry

The Talvivaara case seems to suggest that socially responsible behaviour is a relevant factor for companies to consider, and that especially poor public reputation may severely impair business opportunities. Due to its poor environmental records, Talvivaara lost a business opportunity in terms of speedy expansion of its mining activities (Partanen 1.11.2011). The company also faces police investigations regarding possible environmental crimes (HS 10.11.2011) and has been reported to the Finnish Chancelllor of Justice for deceit (Mustonen 22.10.2011, YLE 12.4.2011). Thus Talvivaara’s poor CSR performance has brought the company into considerable conflict with Finnish regulatory authorities, and potentially endangered the continuation of its mining operations (YLE 15.11.2011a, YLE 10.1.2012).

In addition, effective management of CSR communications and stakeholder relations appears
crucial for company long-term success. Despite extensive indications towards the opposite, Talvivaara throughout the autumn 2011 claimed that the company had not violated its environmental permit (HS 17.11.2011), which caused the local inhabitants in Sotkamo to become increasingly frustrated with and lose their trust in the company (KS 14.12.2011). The strong negative public opinion raised by these events may potentially complicate future mining endeavours in Finland (Ollikainen 4.11.2011, Rönty 21.9.2011), since both the media and the Finnish citizens have grown strongly aware of the massive environmental impact of the mining industry (Oinaala 20.11.2011).

4.4.3 Learnings for the Government

The case study highlights potential for improvement regarding the regulatory activities of the state environmental authorities. First, the regulatory authorities should not rely on the private sector to provide the environmental information necessary for issuing environmental permits. In the Talvivaara case, a new extraction technique was for the first time rolled out on a large scale. No reference points existed, and so the authorities relied on the measurement data provided by the company (Laita 22.11.2011). Thus Talvivaara’s environmental permit was issued without maximum emission limits for several polluting minerals, since their initial impact estimations were significantly lower than the realized pollution (HS 10.11.2011, Väisänen 22.9.2011).

Second, it is worth evaluating whether environmental permits should be issued for shorter time periods than the customary three years (HS 11.12.2011), especially in the case of new utilized techniques whose effects on the environment are not well known (HS 22.10.2011). Talvivaara’s environmental permit was issued in 2007, and since then the company has received numerous requests from the Kainuu Centre for Economic Development, Transport, and the Environment to improve its environmental performance. The company has, however, made slow progress in this regard, and a more short-term environmental permit is anticipated to provide more frequent opportunities for reassessing the environmental impact of company activities (HS 11.12.2011).

Finally, the Talvivaara case constitutes a drawback for the plans of the Finnish government to use the mining industry in the country as a national growth engine. The negative publicity facing Talvivaara may implicate future mining endeavours, complicate the issuance of future mining permits, and hence slow down the growth of the Finnish mining industry (Oinaala 20.11.2011). As such the case demonstrates the riskiness of favouring industry development and growth at the expense of corporate socially responsible behaviour.
5 Conclusions

The institutional framework we have employed provides a good basis for the analysis of institutional pressures on private corporations, through also offering opportunities for improvement. The framework considers an exhaustive group of institutional stakeholders, and emphasizes how the organization characteristics of companies affect the level and type of pressure exerted on them by institutional stakeholders, and also how these are perceived within the company. In addition, the framework is useful for demonstrating how pressures exerted by institutional stakeholders influence the socially responsible behaviour of a company. However, the framework does not extensively consider the interactions between different institutional stakeholders, though the case study identified these as an important factor in explaining the socially responsible behaviour of Talvivaara Mining Company Plc. The framework is also static in nature, thus complicating the study of stakeholder dynamics over time. It could hence benefit from the integration of system dynamic elements in order to reflect a more nuanced view of real-world stakeholder interactions. Furthermore, the case study suggests on one hand that poorly managed CSR and deficient corporate socially responsible behaviour may result in lost business opportunities and negative public opinion for companies; on the other hand, the Finnish environmental regulatory authorities could improve their regulatory activities by introducing stricter a scrutiny of environmental permit applications by companies, and by shortening the time period for which environmental permits are issued.

Finally, it is worth noting that the case study was based on publically available material, and hence does not offer a full picture of the internal reactions and actions of Talvivaara managers. Instead, their perceptions and reactions were indirectly deduced based on public sources, and the presentation of Talvivaara in the case study may hence be deficient. Additionally, the used methods may not have exhaustively recorded all stakeholder interactions present in the case. Hence more case studies, utilizing more varied research methods, are needed to confirm the obtained results.
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Appendix A: Delmas and Toffel Framework

Figure 2: Framework of the institutional pressures regarding environmental management exerted on a company, as proposed by Delmas and Toffel (2004).
## Appendix B: Campbell’s Eight Conditions

Table 1: Eight conditions for socially responsible behaviour of private corporations by Campbell (2007).

<table>
<thead>
<tr>
<th>No</th>
<th>Economic Propositions: Corporations will be less likely to act in socially responsible ways...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>when they are experiencing relatively weak financial performance and when they are operating in a relatively unhealthy economic environment where the possibility for near-term profitability is limited.</td>
</tr>
<tr>
<td>2</td>
<td>if there is either too much or too little competition. That is, the relationship between competition and socially responsible corporate behaviour will be curvilinear.</td>
</tr>
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<table>
<thead>
<tr>
<th>No</th>
<th>Institutional Propositions: Corporations will be more likely to act in socially responsible ways...</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>if there are strong and well-enforced state regulations in place to ensure such behaviour, particularly if the process by which these regulations and enforcement capacities were developed was based on negotiation and consensus building among corporations, government, and the other relevant stakeholders.</td>
</tr>
<tr>
<td>4</td>
<td>if there is a system of well-organized and effective industrial self-regulation in place to ensure such behaviour, particularly if it is based on the perceived threat of state intervention or broader industrial crisis and if the state provides support for this form of industrial governance.</td>
</tr>
<tr>
<td>5</td>
<td>if there are private, independent organizations, including NGOs, social movement organizations, institutional investors, and the press, in their environment who monitor their behaviour and, when necessary, mobilize to change it.</td>
</tr>
<tr>
<td>6</td>
<td>if they operate in an environment where normative calls for such behaviour are institutionalized in, for example, important business publications, business school curricula, and other educational venues in which corporate managers participate.</td>
</tr>
<tr>
<td>7</td>
<td>if they belong to trade or employer associations, but only if these associations are organized in ways that promote socially responsible behaviour.</td>
</tr>
<tr>
<td>8</td>
<td>if they are engaged in institutionalized dialogue with unions, employees, community groups, investors, and other stakeholders.</td>
</tr>
</tbody>
</table>