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An Evaluation of Corporate Social Responsibility Initiatives Implemented by Alcoa, Votorantim, and Vale as a Means to Aid in Poverty Alleviation in the Brazilian Regions These Mining Companies Operate

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CLAREMONT McKENNA COLLEGE

**AN EVALUATION OF CORPORATE SOCIAL RESPONSIBILITY
INITIATIVES IMPLEMENTED BY ALCOA, VOTORANTIM, AND VALE AS A
MEANS TO AID IN POVERTY ALLEVIATION IN THE BRAZILIAN REGIONS
THESE MINING COMPANIES OPERATE.**

SUBMITTED TO

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BY

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FOR

SENIOR THESIS

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I. The Role of Corporate Social Responsibility in International Development

Even though each year millions of people in developing countries are rising out of poverty to join the emerging middle class, a large portion of the developing world still lives on less than \$2 a day. Governments, non-governmental organizations, non-profits, and corporations acknowledge this disparity and aim to address the issue using a variety of methods. Mineral extraction corporations, in particular, have the potential to play a key role in alleviating poverty. These firms are eager to meet the increasing demands of the newly developing global middle class by spreading their operations further around the globe. Their sprawling presence creates new opportunities to serve the world's impoverished through corporate social responsibility initiatives. Today, many of the problems seen in developing countries include inefficient distribution of resources, poverty, poor standards of living, overpopulation, malnutrition, disease, lack of education, gender inequality, and government corruption. Corporate social responsibility initiatives create new avenues to address these issues associated with developing nations.

In the past 20 years, the private sector has been experiencing a paradigm shift from purely focusing on generating profits to also contributing to the social good. Today, civil society pressures corporations to not only earn profits, but also contribute to the betterment of society. Corporate social responsibility initiatives are methods of how companies can provide services to society. The term is roughly defined as “economic, legal, ethical, and philanthropic expectations placed on organizations by society at a given point in time “(Carroll and Buchholtz 2000, 35). Carroll and Buchholtz argue that each of these corporate social responsibility components must be met before the

subsequent component can be met (2000). Essentially, businesses must first fulfill economic responsibilities which include, making profits, providing employees with safe and fair paying jobs, and providing customers with good quality products. More broadly speaking: to be a functioning economic unit and stay in business. Secondly, businesses need to commit to their legal responsibilities. Meaning a business must obey the laws and follow industry norms. Since the government is viewed as an extension of society, the laws that the government enacts are social codes that must be met before any other social responsibilities are pursued. The third step of corporate social responsibility is to address a business's ethical responsibilities. Carroll defines this element as what is generally expected by society, above and beyond economic and legal requirements (1991). Society generally expects corporations to be just, fair, and to do what is right. Lastly, businesses will focus on corporate social responsibility philanthropic initiatives. The Greek word "philanthropy" directly translated means "the love of the fellow human." Thus, philanthropic corporate social responsibility is how businesses can positively contribute to the overall quality of life (Hennigfeld et al 2006, 8).

Corporations are driven to participate in corporate social responsibility by a compilation of altruistic and utilitarian motives. The stronger and more integrated application of these motives precipitate richer, fuller relationships capable of producing higher value for stakeholders on multiple levels (Austin 2004, 30-32). Altruistic components refer to a passion to help society. Utilitarian components refer to organization competitiveness. It is important to note that each factor does not represent a "right" or "wrong" corporate social responsibility method. There is not an innate tension between the two because both are essential in the corporate social responsibility process.

While it is important to serve the needs of the community, it is equally important to meet the legitimate needs of a corporation. (Austin 2004, 33). Davis and Blomstrom's "Iron Law of Responsibility" suggests that "in the long run, those who do not use power in a manner which society considers responsible will tend to lose it" (1975, 50). The most successful corporations must choose to intentionally and strategically become a part of the solution to complex issues today, in order to preserve their businesses for the future.

Michael Porter, well-known for his work on competitive advantage, argues that if a corporate philanthropic activity does not have a strategy base, it is a disadvantageous activity. Thus, even though companies gear corporate social responsibility towards an altruistic element, a utilitarian element must be present, as well. Porter attests that certain philanthropic investments will create a long-term competitive advantage for business, industries, and communities (2003). In some cases, companies are better equipped than governments to meet society's needs because they possess specialized skills and technologies that are significantly more efficient than government. Similarly, the "bottom of the pyramid" method aims to tap into the nearly 4 billion person market in developing countries. When companies transform their products to meet the financial and resource needs of this market they simultaneously increase profitability and contribute to reducing poverty. In addition, when companies contribute to social, economic, or environmental community needs the company is investing in the region's potential for business operations in the future. As a result, improving the company's competitive advantage compared to those companies who do not participate in equitable quality corporate social responsibility.

Adversaries of corporate social responsibility business strategy refute that corporations should play a role in philanthropic activities. Milton Friedman once attested that the primary “social responsibility of business is to make profits (Friedman, 1970).” Within his argument, Friedman claims that only human beings are responsible for their actions and that corporations are not considered human beings. Therefore, corporations are not responsible for their business activities, but rather the individuals a part of the corporation must hold themselves responsible. Further, Friedman (1970) asserts that social issues should be the responsibility of the state, not business. This is because managers do not have the capacity to understand how to address society’s needs. This rests under government jurisdiction. Since legal restrictions on business activity are set in place by the government, who represents society, managers are obligated to solely act in the interest of shareholders, as long as the mandatory legal framework is being met. According to Friedman, shareholder interest revolves around fulfilling the corporation’s central purpose: profitability (1970). For managers to act otherwise, would be considered ‘theft’ from shareholders. Friedman does not deny that corporations participate in such corporate social responsibility activities, however he argues that any business action performed for corporate-interest should not be classified as corporate social responsibility (1970). If actions are grounded in a central goal to produce profit, then Friedman reasons it should be not characterized as a corporate social responsibility activity. Either way, corporations are engaging in corporate social responsibility activities, therefore, investigating the most efficient models provides valuable information to these entities.

Determining which element causes the other, corporate social responsibility initiatives or profitability, is nearly impossible to prove because of the ambiguity between

each factor. There is, however, a positive relationship (Porter and Kramer, 2002). So according to Carroll's four-level corporate social responsibility design, it is imperative that corporations take into account social concerns because corporate social responsibility promotes profitability, which is the first requirement of his corporate social responsibility model. Corporations are attracted to corporate social responsibility activities because of the multi-tiered benefits for the community and the corporation itself. For example, by using a socially responsible business structure studies show an increase in new consumers who are attracted to the company's positive reputation. Further, companies who uphold social responsibility attract a higher quality workforce, which is even more committed to their corporation because of its perceived socially responsible mission. Establishing a positive mutual relationship with the government is also an advantage for corporations. They gain more autonomy from and influence over legislation in order to promote their own business practices. Overall, corporate social responsibility represents short-term and long-term investments in the local population, government, and economy to secure a prosperous business in the future (Henningfeld 2006).

Individual corporations participating in corporate social responsibility initiatives dictate their own strategies according to their industry norms, available corporate resources, and specific community needs. Some corporations commit to meeting the minimum governmental regulations. By doing this, corporations curb the most pressing public concerns, but do not go beyond their legal obligation. On the other hand, corporate social responsibility could be used to fulfill a philanthropic vision in which a corporation proactively and consistently contributes to society above and beyond the basic governmental requirements. Regardless of the differing corporate social responsibility

missions, each entity strategically formulates their corporate social responsibility agenda to, in some regard, meet the needs of the communities it affects. This agenda dictates how a corporation's resources and expertise are administered. Discussed below are examples of methods in which corporations may construct corporate social responsibility initiatives. This information represents hypothetical strategies and possible results, not necessarily strategies proven to be most effective.

Corporate Social Responsibility Strategies

(1) Environmental Sustainability

Environmental sustainability initiatives aim to provide an environment that meets the needs of those today, without compromising the ability for future generations to meet their own needs (United Nations, 1992). Since a wide range of people benefit from sustainable development and environmental activist groups strongly support these initiatives it is useful in influencing positive public opinion. In addition, corporations preserve future resources for their own business activities. The first step corporations take in pursuing environmental sustainability is to thoroughly research the environmental impacts of their operations. If corporations are producing negative environmental externalities, local communities are inflicted with present and future environmental challenges. In response, corporate social responsibility resources are used to create proactive and retroactive sustainable business responses, techniques, and technologies in order to reduce their direct environmental impacts. Further, environmental education and sustainable community development can be provided. This strategy places more responsibility on the local citizens to use their sustainability education to benefit their

own community. In theory, it creates a longer lasting sustainable influence because community members can use their knowledge throughout their entire lifetimes and pass on sustainable traditions to future generations.

(2) Anti-corruption/ Anti-bribery

Multinational corporations operating in the developing world typically possess more influence over political, social, and economic issues than local community members. This is due to the fact that the corporations have superior financial resources, connection with the government and knowledge about national legal issues. Despite this power disparity, it is in a corporation's best interest to avoid engaging in corrupt activity. The news of questionable business operations eventually leaks out to the global community. Currently, international business etiquette disapproves of corrupt behavior and views it as immoral. A company that participates in corrupt activities negatively impacts its reputation, thus, diminishing shareholder confidence and ultimately decreasing overall business value. To avoid this, a corporation should adopt anti-corruption and anti-bribery corporate social responsibility strategies. When a corporation refuses to engage in dishonest activities, it reflects positively on corporate operations and adds to a just political climate (Stewart 2009). In addition, a contribution to a smooth running government benefits corporations because they can operate with few governmental interventions and also save money by avoiding bribes.

(3) Local Economic Development

Corporations may choose to invest in local economic development. As a method to spur business growth corporations provide microfinance loans to local start-up or small businesses within the community. Business management courses that extend knowledge concerning entrepreneurship and sustainable business are another beneficial corporate social responsibility economic development alternative (Stewart 2009). In addition, contribution to infrastructure such as roads, ports, and city centers are beneficial for local trade because goods can be more efficiently transferred over a broader region.

(4) Education and Training

If a corporation employs people from the local community, it is necessary that these people are trained adequately. Education integration into business operations is imperative for social development (Nelson 2006). Corporate social responsibility focused on educational development helps people become more self-sufficient by teaching them skills that will attribute to being more productive members of society. This type of corporate social responsibility strategy, creates valuable human capital. Corporations could choose to focus on primarily employee training or choose to extend services to the entire community. The latter would consist of supporting primary to tertiary schools in order to invest in local human capital for potential future employees. The locally operating corporations will be more efficient with trained and educated employees who gain business and operations skills.

(5) Health and Wellness

Access to health care services attributes to healthier community members, therefore extending a person's work life and improving productivity. "Business works best when operating in stable and secure societies," (Plugge 2004) in which a healthy workforce plays an important role. Corporate social responsibility health and wellness strategies may include education about basic hygiene, nutrition, and sanitation. Corporations who open access to basic medicines reduce the risk of many common illnesses that could be avoided or significantly reduced. All of these benefits contribute to stronger, healthier, and more productive employees.

(6) Gender Equality and Women Empowerment

Evidence shows that empowering women contributes to positive socio-economic development within communities in developing countries (Malhorta et al 2002, 33). Female leadership programs, increase corporate employment of women, provide microfinance loans for female entrepreneurs, and establish strict sexual harassment corporate policies are all possible corporate social responsibility gender equality initiatives (Plugge 2004, 6). By empowering women, more people are added to the work force, more businesses are developed, and familial relationships are more equalized. As a result, the community becomes increasingly competitive.

(7) Employee Volunteerism

Highly qualified professionals immigrate into local developing communities when a large business opens. These people have received ample training and are intellectually

qualified to operate a business on multiple levels. Using employee volunteerism within the local community is another example of a beneficial corporate social responsibility strategy. Depending on each employee's skill set, corporate volunteers serve the community by improving local business strategies, infrastructure, education system, and public services. Studies have shown that employees desire a sense of "self-worth and a belief that their work provides value to the community," rather than solely receiving high salaries (Shayon et al 1975, 2). Employee volunteerism fulfills this desire for importance in corporate work. When employees participate in volunteer work they also gain and perfect skills that will be more effective within corporate operations. Hence, this corporate social responsibility technique improves employee morale, provides needed services to the community, and advances employee skills.

Corporate Social Responsibility Implementation Techniques

Corporations choose from a variety of implementation techniques in order to maximize the positive effects of each corporate social responsibility strategy within communities. Specific techniques are "aimed at mobilizing not only money, but also the company's people, products, and premises to help support and strengthen local communities and non-profit partners" (Nelson 2006, 7). Discussed below are examples of corporate social responsibility implementation techniques that multinational corporations invest in.

(1) Philanthropic Cash Donations

The philanthropic corporate donation phenomenon began in the United States during the 20th century with business leaders such as Rockefeller, Mellon, Ford, Gates, Kellogg, and Packard. This type of relationship is based upon responses to non-profit requests for donations with simple “check-writing,” rather than a deeper interaction with charitable organizations. Interactions between corporations and non-profits are usually infrequent, with low engagement, and do not apply strategic planning. The basis for this implementation technique is to promote company image in a way that consumers and stakeholders perceive a compassionate and responsible institution. On the flipside, non-profits receive the necessary funding to maintain service operations (Austin 2004, 4).

(2) Independent Service Provider

Less commonly pursued, corporations may choose to develop an “in-house” philanthropic service department to carry out their corporate social responsibility strategies. This department would act as the management team for the creation and implementation of corporate social responsibility strategies autonomous from non-profits, non-governmental organizations or the government. Nonetheless, consultation from these service organizations and the government occurs because of their specialized understanding of philanthropic initiatives which the corporation does not possess. Employee volunteerism would be the most common resource used within this implementation technique because it is one of the most accessible assets the company holds.

Direct Corporate Humanitarian Investments represent another form of independent service provider implementation technique that corporations autonomously develop. This technique “involves a firm using its resources and know-how to alleviate a particular instance of human misery” (Dunfee & Hess 2000, 95). Corporations with specific niches in a development sector best optimize this technique. For example, the pharmaceutical company, Merck, held the patent to the drug that controlled river blindness. Hence, Merck was the only entity that could distribute this drug independently to developing communities for a reduced price.

(3) Partnerships

Corporate and social sector partnerships resemble a joint-venture relationship in order to achieve common philanthropic goals central to the mission of each institution. Within the partnership each organization shares its resources equally and frequently communicates about specific initiatives. In addition, the managerial complexity required within a partnership typically precipitates a separate department to directly manage and implement the bilateral exchanges (Austin 2004, 4-5). In contrast to the previous implementation techniques, corporations acting in a partnership focus on specific initiatives and programs. For example, cause-marketing, project development, and synchronization of strategies are all activities involved within corporate and non-profit partnerships. Multinational corporations play an additional role in partnership corporate social responsibility implementation. Specifically, multinational corporations frequently participate in cross-sector partnerships because most have a mission to engage with the local community. Not only do corporations transfer technology and economic

development, but also their values and social policies (Austin 2004, 35). This adds another level of influence within the partnership.

Methods of how corporations establish partnerships include social networking, past relationships, connections through acquaintances, related institutions or an affiliation with a specific cause. Typically in developing countries partnerships are with reputable non-profits or non-governmental organizations. Corporations partner with mostly traditional institutions because of their established reliability and proven success. In more progressive developing countries relationships could be developed with local service organizations, but in more underdeveloped countries multinational western based service organizations are used.

A partnership acts as a form of risk-management for both the corporation and non-profit organization. Corporations utilize a partnership as an effective tool to address incurred harm to the community from business activities or as a resource to resolve future issues (Austin 2004, 34). Specifically in industries that produce negative externalities, a preventative alliance with a non-profit that specializes in neutralizing harmful business activities is extremely advantageous. Businesses cut-costs, improve public image, and engage with the local community with an established partnership. Moreover, when a corporation partners with the government or provides a service to society, both parties create a “win-win” relationship (Steward 2009, 18). The government gains from the economic development, material wealth, and jobs that corporations provide. Corporations benefit from government investment in infrastructure and legal protections. In addition, the government determines laws and regulations that a corporation must abide by. Thus, positive and reliable partnerships would influence the government to be more willing to

responsive to accommodating corporate needs. Governments are better off because corporations create an increase in GDP, provide jobs to local citizens and contribute to national development.

Non-profits and non-governmental organizations further gain from partnering with corporations. Funding diversification and reducing dependence on public resources are the main examples of how these organizations reduce their business risks.

Corporations provide a secure source of funding despite possible government fluctuations in monetary support. For example, if a non-profit organization relies solely on government funding and there is a change in government leadership, budgeting, or policy that reduces funding to the non-profit, the organization would be at-risk of losing many resources. By partnering with corporations, non-profits and non-governmental organizations reduce their financial risk and gain valuable business strategy consultation.

Corporate Social Responsibility Assessment Methods

The evaluation of corporate social responsibility initiatives is extremely important for organizational analysis and public awareness. Documenting corporate social responsibility investments may influence corporations to be more accountable and take more ownership over their activities because it will be appraised by corporate and public experts. Firms use a variety of corporate social responsibility assessment methods in order to internally assess and externally report their corporate social responsibility investments. Reporting assessments may be an important and efficient way to communicate corporate social responsibility investments and achievements with academia, the financial community, government, policy makers, regulators, interest

groups, non-governmental organizations, general public, the local community, employees, shareholders, and the industry (Tilt 1994). Jason Saul (2009) believes that “at the end of the day we have to demonstrate value, and the way we demonstrate value to business, and to society, is by speaking the language of the business—by speaking the language of measurement.” Therefore, he argues that quantitative analysis of corporate social responsibility initiatives and reporting is a key component of corporate social responsibility management. In addition, if companies choose to use the internet and their websites to disseminate their social and environmental activities they have the potential to increase their transparency. This is an advantageous mode of communication because of its wide accessibility, low-costs, and ability to easily create in-depth or interactive tools (Line et al, 2002).

The information gathered from expert audits, annual reports, corporate social disclosure reports, environmental sustainability reports and corporate assessments can be used to assess the efficiencies and short comings of corporate social responsibility initiatives. Important factors to consider are generally firm transparency, corporate governance, code of conduct, corporate social disclosure, social impacts, community relationships, product quality, and stewardship (Szablowski 2006, 49). Thomas Haynes (1999) further recommends all companies measure four critical areas of corporate social responsibility: 1) economic function, 2) quality of life, 3) social investment, and 4) problem-solving. However, Harold D. Lasswell would consider these four critical areas incomplete because it does not take into account the evaluation of corporate social responsibility investments and policies according to the appraisal results. The corporate social responsibility goals must be specific and clear in order for the evaluations to be

effectively implemented to improve corporate social responsibility programs and investments or to propose alternatives. In the past decade, corporate social disclosure reports are being more commonly used. These reports consist of voluntary and mandatory accounting of community issues above purely economic activities, such as human resources, community involvement, energy, product safety, environmental issues). The Corporate Citizenship Company, an international corporate responsibility and sustainability consulting firm, uses seven categories to assess the effectiveness of corporate social responsibility activities.

Assessment Factors by Corporate Citizenship Company
(Yakovleva 2005, 23)

- 1) Shareholders
 - a. Return on investment
 - b. Corporate governance
- 2) Employees
 - a. Salary and Benefits
 - b. Health and safety
 - c. Training and staff development
 - d. Diversity
 - e. Communications
- 3) Consumers
 - a. Price/ value
 - b. Quality of product
 - c. Advertising policy
- 4) Business partners
 - a. Jobs sustained
 - b. Payment of bills
 - c. Technology transfer
- 5) Government
 - a. Tax contribution
 - b. Local economic impact
 - c. Transfer pricing policies
- 6) Community
 - a. Charity contributions
 - b. Local economic impact
 - c. Transfer pricing policies
- 7) Environment
 - a. Sustainable raw materials

- b. Emissions to water and air
- c. Energy efficiency
- d. Waste management
- e. Reduced packaging
- f. Consumer education

In partnership with the Corporate Citizenship Company, the London

Benchmarking Group analyzes corporate social responsibility investments and gives each program and service quantitative value. The LBG was founded in 1994 and consists of over 100 companies dedicated to measuring Corporate Community Investment. Hundreds of companies around the world use the LBG method to quantitatively value corporate social responsibility activities. Monetary values are applied to 5 variations of business activities: 1) business basics, 2) mandatory contributions, 3) commercial initiatives in the community, 4) community investment, and 5) charitable gifts. These varying business activities allow corporations to classify a monetary value to a company's corporate social responsibility inputs including cash, time, in-kind, and management costs ("Measure for Measure," 2004). The companies also assess their corporate social responsibility outputs and impacts in order to equate the net gains of corporate social responsibility investment. For example, new availability of cash or other resource, quantity of people aided, and business benefits represent measurable outputs.

Assessment tools have the potential to be extremely valuable in corporate social responsibility strategies. Companies should be evaluating the performance of their corporate social responsibility investments to gain further intelligence about how to efficiently improve the use of their corporate resources. However, currently corporations are not required by law to report their corporate social responsibility activities. Those that do report use different methodologies, creating inconsistencies in appraisals techniques.

Some models that companies are presently using could be omitting crucial key factors in corporate social responsibility efficiencies, thus, providing incomplete information. A comprehensive corporate social responsibility evaluation model needs to be established in order to effectively assess and improve corporate social responsibility activities.

II. Historical Trends of Corporate Social Responsibility Strategies Implemented by Corporations in Brazil

Background: Corporate Social Responsibility in Brazil

Throughout Brazilian history, philanthropic and charitable donations were significantly represented in the nation's culture. Since the colonial period, the Catholic Church has inspired the establishment of many civil society organizations that carry out needed services for society. This movement grew during the industrialization period and gained substantial public support. During military rule, civil society organizations diminished in quantity because of the extremely centralized government. By the democratization period during the late 1980s until present, more and more corporations have adopted corporate social responsibility initiatives, thus, influencing a shift in Brazilian business culture. Brazilian society remains highly centered around philanthropic concerns, which is made evident through a study cited by Cappellin and Giuliani. In 2000, 70 percent of the adult population donated goods and money to social organizations or people in need (2004). Understanding the historical trends of the evolution from philanthropy to corporate social responsibility strategies will provide more insight into the analysis of mining company corporate social responsibility and how it could be most effectively implemented.

Brazilian colonial development was originally based upon an agricultural slave economy under an authoritarian and centralized government. The country's colonial origins also influenced the predominance of the Catholic Church in Brazilian society. The state collaborated heavily with the Church. Responsible for public services including education, health and social welfare, the Church played an important role in connecting

the state to its people. After the separation of Church and state in 1891, the Church continued to invest in schools, hospitals and charitable works (Landim 1998, 68). During this period, “popular Catholicism” inspired the establishment of the first societal associations, including the most notable “Brotherhoods of Mercy.” These endeavors were sponsored by the business elites, who helped in establishing a philanthropic cultural norm among many wealthy citizens. These associations were used for worship, as well as creating some of the first hospitals, homes and psychiatric hospitals (Landim 1998, 67). Corporations did not notably donate to philanthropic associations, but business leaders contributed individually.

The state managed Brazilian society in a hierarchical fashion that maintained power and wealth within exclusive authoritarian elite. For example, societal changes generated by industrialization in the late nineteenth century were managed using agreements between the dominant elites (Landim 1998, 64). Under governance, the Brazilian rich became relatively richer while the poor became relatively poorer. This disparity is evident to this day. During the industrialization period between 1822 and 1930, the government established associations to provide services and resources to the unemployed as a strategy to attract foreign workers. Trade unions gained momentum during this period, as well. Thus, businesses were forced to deal with employee rights and services in order to contract with the trade unions. James Austin notes that if corporate social responsibility was implemented, it only extend to corporate employees (Austin 2004, 29) during the industrialization period.

Military governments controlled the state from 1964-1985. They prioritized economic growth through expanding its industrialization system to diversify from the

previous mono-culture agriculture of sugar, rubber, coca, and coffee (Schroy 2006). In the mid-twentieth century the military government instigated anti-inflation policies and invested in economic infrastructure: industry, transportation, and power, but failing in essential reform of public education (Evanson 2002). In addition, this period also marked the suppression of social organizations and social movements. The state controlled all social initiatives from education, to social security and health care. Consequently, the evolution of corporate philanthropy into Brazilian business strategy became extremely limited. However, the Brazilian non-governmental organizations, civil society organizations and non-profits that did operate during the period of military rule were given minimal supported by the government, so some organizations turned to corporations as a source of resources and funding. This process led to significant alterations to how Brazilian social organizations strategized their operating models (Austin 2004, 207).

Corporate Social Responsibility in Brazilian Business Culture

In Brazil, like elsewhere, companies are being challenged to better strategize their corporate social responsibility resources in order to become a part of the shifting paradigm that businesses should implement corporate social responsibility initiatives in their development. A survey conducted by Instituto Ethos (2002), a Brazilian corporate social responsibility non-profit organization founded in 1998, reveals that Brazilian consumers expect ethical behavior from companies. It is no longer acceptable for a corporation to produce negative externalities without engaging in activities to recuperate and compensate those who are affected. On the other hand, Brazilian consumers seek out

companies that operate sustainably, collaborate with the community, and provide quality working conditions (Instituto Ethos 2002). Corporations increasingly devote more resources to their corporate social responsibility initiatives as a result of public pressure and evolving business missions.

In the 1990s, an increase in civil society organizations occurred because of the changing economy and collaboration of business leaders. Liberalizing the Brazilian economy presented many challenges due to over 25 years of strictly regulated military rule. After eradicating most trade barriers, local Brazilian businesses were faced with intense international competition that nearly suffocated local businesses. This created an extremely unfavorable economy for corporate commitment to factors outside of direct business activities, such as corporate social responsibility. Instead, business leaders personally founded third-sector organizations in order to influence legislation and public opinion regarding issues they were most passionate about. For example, a group of business people who all had a mission to mobilize, encourage, and help companies manage their business in a socially responsible way, established Instituto Ethos. Once the Brazilian economy began to recover in the mid-1990s, businesses slowly started engaging in corporate social responsibility initiatives once again, first with charitable giving (Austin, 2004) to many of the newly established third-sector organizations. The increase in research, academic studies, dissemination pieces, and broad media communication about corporate responsibility initiatives has further influenced businesses to participate in corporate social responsibility activities. The stronger spotlight on this shifting business paradigm further increases awareness and promotes widespread expectation of corporate social responsibility investment.

Brazilian Government Social Policies

During the early part of the twentieth century, civil society organizations rapidly gained a strong presence within Brazilian culture. In 1938, the Decree-Law was enacted establishing the Conselho Nacional de Serviço Social (National Social Service Council or CNSS): a linkage institution between the state and public sector. The institution's main duties included implementing and assessing aid to the poor and determine which non-profits should receive government funding. In addition, the Legião Brasileira de Assistência (Brazilian Legion of Assistance or LBA) was established to serve the needs of the noticeably vulnerable portions of the population, for example, young children, pregnant women, and the elderly. These services were carried out with the partnership of social or church organizations. These departments of state maintained a social network within the government and society that set a precedent for subsequent social governing and Brazilian culture.

The military acted as a highly centralized functioning government from 1964 to 1988. Under military rule, the government directly controlled the economy, national development, and social service agencies. The military focused on rapid economic growth and expansion creating the "Brazilian Economic Miracle." From 1964-1972, Brazil experienced an average of 10% GDP growth (Schroy 2006). Despite its economic achievements, Brazil neglected education and health care reform leaving a significant portion of the population in poverty (Evanson 2002). By the end of military rule, the economic disparities between the rich and poor were epic creating the societal need for poverty assistance.

The current democratic government and constitution were founded in 1988 after the military relinquished governing power. In light of the experience under the military governments, the 1988 constitution directly protects Brazilian civil rights. It is best known as the “Citizen Constitution” due to the state’s commitment to enhancing social policies and defending human rights (Austin 2004, 210). This philosophy aids in developing and maintaining civil society organizations that contribute to reducing poverty, improving health care and education, and protecting the environment. Government regulation of business also reflects the protection of civil rights. For example, in 1995 the Environmental Crime Law was enacted to give citizens the right to sue business executives in court if they do not comply with health, environmental, or safety standards (Cardoso 2003).

To understand the remaining needs and opportunities for corporate social responsibility contributions, it is important to understand existing social policies. Currently, the Brazilian government actively implements social service programs for poverty alleviation and social safety protection. The government of President Luiz Inácio Lula da Silva established the Ministério do Desenvolvimento Social e Combate à Fome (Social Development and Fight Against Hunger Ministry or MDS) in 2004. This ministry enacted “Assistencia Social” (Social Assistance), “Bolsa Familia” (Family Bag), “Segurança Alimentar e Nutricional” (Food and Nutrition Security), “Inclusão Produtiva” (Production Inclusion), and “Avaliação e Gestão da Informação” (Information Management and Evaluation) all aimed at elevating poverty and promoting human development (Desenvolvimento Social, 2010). As a result, Brazil’s poverty rate declined by 20 percent during the 1990s (Cardoso 2003). Bolsa Familia was created in 2003 as a

method to reduce short-term poverty and combat long-term poverty by requiring children to attend school and become vaccinated. Currently, the program provides 11 million families with US\$44 a month (Casanova 2009, 141). The past decade has shown even more social improvements. The World Bank justifies that living on less than US\$1.25 equates to living in poverty. In 2003, 22.9 percent of the Brazilian population was impoverished, but by 2009 only 10 percent of the population was impoverished (Santos 2010). It is important to note that there are still many weaknesses within the social system. 33 percent of the active working population does not qualify for unemployment or social insurance, leaving them at risk against sickness, accidents or maternity leave. At the same time, 20.3 percent of children are still living in poverty (Santos 2010). Overall though, the system as a whole has been effective in reducing poverty.

Brazilian Government Environmental Policies

The government has a formal commitment to sustainable development in addition to improving civil society. For instance, the Brazilian “Environmental Protection and Licensing Plan” requires corporations to receive a ‘Previous License’, ‘Installation License’, and ‘Operation License’. At each stage, environmental risk assessments must be completed by the company and approved by the environmental government agency, Insituto Brasileiro do Meio Ambiental (IBAMA 2010). At any time in the application process, the Brazilian government has the right to halt construction. Government regulations appear to be strict; however, past precedent shows that the government encourages profitable resource extraction industries, such as mining. Mineral exports are a robust commodity for Brazil contributing to GDP and tax revenue for the quickly

developing nation. Therefore, the government reduces regulation and loosens its monitoring system in order to promote rapid resource extraction and increase national revenue.

At the same time of the increasing expansion of the mining industry, the International Council of Minerals and Metals, consisting of 19 robust multinational mining corporations, have set in place environmental and social commitments in an attempt to preserve environmental and social rights. Each mining project must receive a “Social License to Operate” from the International Council of Minerals and Metals. This requires consent by the local community through negotiations and written agreement of how the community will regulate mining activities. The firm is obligated to administer an environmental impact assessment to pinpoint potentially hazardous affects on the environment and how it plans to rehabilitate any degraded environments. However, the International Council of Minerals and Metals does not regulate corporate social responsibility initiatives. Companies themselves are responsible for implementation and assessment.

Present State of Corporate Social Responsibility in Brazil

Instituto Ethos, Brazil’s prominent social change non-profit organization, reports that more than half of Brazilian companies implement social policies (2010). Public opinion continues to promote a shift in corporate culture to develop solutions to some of the country’s toughest problems such as, environmental degradation, poverty, and health care. The vast inequalities within Brazilian society have become a hot topic among international development organizations. For example, even though Brazil’s economy is

ranked as the eighth largest economy in the world (IMF 2010), 50 million people are living on less than US\$30 a month. Globally, Brazil is ranked 4th to last in income distribution and 73rd on the Human Development Index (Austin 2004, 215). This wealth disparity highlights the extensive potential corporate social responsibility initiatives could have upon the disadvantaged populations.

Corporations operating in Brazil view corporate social responsibility as a tool to restore trust among the public by serving those who suffer from the unequal distribution of national wealth originally initiated by some of these corporations. SustainAbility Vice-Chairman Geoff Lye reasons that “if business leaders can make a difference but choose not to, they will live to regret the disruptive social, environmental, and economic consequences that will result from failing to achieve development goals” (Lye 2006). Purely focusing on firm profitability is not enough now. A corporation’s culture, impact, and global image play an imperative role in Brazilian business activity. Businesses that do, however, chose to participate in corporate social responsibility initiatives usually focus on issues that have relevance to their own business activities. For instance, Roberta Mocrejs Paro and Claudio Bruzzi Boechat (2008) researched business priorities and corporate social responsibility initiatives of 30 Brazilian companies. The study uncovered that corporations prefer corporate social responsibility activities that are important for business activities. For example, the top four corporate social responsibility initiatives among the participants are in the energy, water, education, and environmental sectors. These were also the top four sectors for the implementation of business activities (Paro 2008, 539).

The Brazilian government heavily promotes corporate social responsibility activities, as well as, implements extensive corporate regulations in order to protect its environmental, social, and economic identities. Even though some business philosophies behind corporate social responsibility activities appear to be clearly defined and structured, often the reality is a different scenario. Emilio Klein a researcher at the International Labor Organization remarks about corporate social responsibility in Brazil (Hopkins 2007, 177):

...in that country everything is there on paper, perfectly neat and rational. But when you check the reality then things are very different. I would say that roughly in Latin American large corporations, and almost all enterprises, lack something that is essential in the background of your definition: fairness. They are unfair with their stakeholders, both inside and outside, and they can be so because they have all the power, including of course the government. If you add to that their short-term perspective, then you get what we get [in Brazil]. Employees, customers, purveyors or whatever, are being squeezed and pushed around by business, particularly those related to basic services (privatized), financial services and commerce.

Even though the Brazilian government has set into place complex social and environmental protection laws, the enforcement and regulation of these principles are extremely limited. Therefore, businesses easily take advantage of local communities by out maneuvering them through economic and political avenues. As a result, businesses typically operate according to their own motives, not the governmental guidelines.

Instituto Ethos uses strategies such as expanding the corporate social responsibility movement, deepen corporate social responsibility practices, creating a more favorable business environment for corporate social responsibility, and articulating corporate social responsibility within public policies to achieve their mission. Currently, this Brazilian corporate social responsibility organization has 907 member companies

who combined employ about 1.2 million people and contribute to about 30 percent of GDP. Business represents one of the most powerful groups in Brazilian society.

Therefore, it is pivotal that this sector engages in corporate social responsibility activities to achieve development success. In 1999, the UN Secretary General launched the Global Compact Program. This aims to coordinate business and corporate responsibility initiatives. Instituto Ethos organized a conference of over 107 companies to develop guidelines for Brazilian companies to participate in this Program. Fourteen principles were created:

- 1) Indivisibility of rights (all human rights must be considered as a whole)
- 2) Meeting employee human rights should be viewed as positive and productive for business
- 3) Companies are leading agents for change because of their large presence in society,
- 4) Possible new labor relations could be developed
- 5) Refuse child labor
- 6) Implement multiple intervention corporate social responsibility programs
- 7) Business participation in policy development for long-term commitment
- 8) Promote women rights
- 9) Environmental protection
- 10) Exchange knowledge and methodologies
- 11) Increase interaction with UN agencies
- 12) Pro-active thinking
- 13) Create methods for discussion
- 14) Monitor Global Compact indicators

These goals represent key factors that Brazilian companies could address while constructing their corporate social responsibility initiatives. Because of the scope of corporate social responsibility options is broad, the presence of corporate social responsibility and corporate social conscience create a favorable environment for further promoting corporate social responsibility into businesses not yet participating.

Modalities of Corporate Social Responsibility in Brazil

Within the Brazilian corporate social responsibility environment, corporations most commonly participate in civil society partnerships. A study conducted by James Austin (2004, 215) shows that of the 385 companies that participated, 85 percent rely on some variation of alliances with civil society organizations to implement social responsibility strategies. Of this group, 15 percent solely use partnerships to conduct their social practices, 37 percent use non-permanent partnerships, and 33 percent occasionally engage in partnerships. Most often these partnerships are multi-sectored, because each civil society organization has specific niches that aid in the common corporate social responsibility goal. For example, businesses often partner with non-governmental organizations and non-profits that already have social management expertise to reduce implementation and operating costs for business social responsibility activities. In addition, corporations are amenable to working with local non-governmental organizations or non-profits because it can lead to positive community relations.

In addition, corporations may also choose to partner with the local, regional or national government to implement social initiatives. Business leaders often view Brazilian governmental organizations as non-cooperative, bureaucratic, slow, and

inefficient. Therefore, business and government alliances tend to be infrequent in Brazil (Austin 2004, 220). However, these difficulties do represent an opportunity for businesses to enhance government entities and to provide advice on how to make the government processes more effective. For example, Natura's commitment to improving local public education in Itapeceriaca da Serra not only required the company to work closely with the local government, but also led to the establishment of "Barracões da Cidadania" (Community Shelters). This program is managed by the Municipal Secretary of Culture in order to provide needy children and youth social and cultural activities and equipment (Austin 2004, 220).

Even though such partnerships are becoming more prevalent, a significant proportion of corporations' efforts remain un-partnered because of factors such as lack of confidence in civil society organizations, lack of information, and precedent frustration. 15 percent of the companies in the Austin's sample do not engage in partnerships, but individually create and implement corporate social responsibility (Austin 2004, 219). Some company executives believe that they can better manage their resources independently because they have "better control" (Austin 2004, 219) than those firms who engage in cross-sector partnerships to implement their social initiatives. Another finding is that companies that incorporate corporate social responsibility into their business models are more likely to make profits than if they treat these factors as expenses unrelated to business strategies directed to enhancing good will, educate potential employees or provide health care to the community (Hamman 2003, 238).

Company executives frequently commit to carrying out ethical business practices as a component of their corporate responsibility. This includes refraining from using

child labor, providing fair compensation, creating safe and comfortable work conditions, and operating within the legal environmental regulations. This promotes ethical business behaviors, as well as benefits the product and companies because they will avoid potential labor rights issues. Further, environmentally friendly operations reflect positively on the company and its products. The company also reduces the risk for governmental fines due to negative environmental impacts. Often companies whose business leaders choose to invest in “green” technology and environmentally sustainable business practices tend to become industry leaders because they are evaluating and strategizing how to improve their operations, as opposed to maintaining the status quo.

Joint commitments to practice corporate social responsibility among firms at the same level within a specific industry have proven to be an effective tool to promote company investment in corporate social responsibility initiatives. These commitments consist of each company dedicating a standardized amount of business resources to corporate social responsibility. Therefore, no company can gain a competitive advantage by not engaging in corporate social responsibility, thus creating a “level playing field” within the industry. The International Council on Mining and Metals is an example of this type of alliance. The organization consists of 18 mining and metals companies, as well as 30 national and regional mining associations and global commodity associations. Its vision is to lead “companies to work together and with others to strengthen the contribution of mining, minerals and metals to sustainable development” (ICMM 2010). This alliance encourages mining corporations to participate in corporate social responsibility, which neutralizes potential disparities

between competitors because a significant amount of the world's most prominent mining companies are members of the International Council on Mining and Metals.

Corporate Social Responsibility in the Mining Industry

Mining company leaders argue that the extraction of non-renewable resources is essential to world development (Jenkins and Yakoyleva 2006, 271). They declare that newly discovered mineral deposits and improved technologies will provide additional wealth into the world's economy. Even though the mining companies claim that they are a part of an important source of global wealth, public opinion has largely focused on the negative externalities of mining activity. In response to this public cynicism, corporate social responsibility represents a valuable impression management tool that all prominent mining corporations utilize (Jenkins and Yakoyleva 2006, 272). Corporate social responsibility is treated as a strategic response to social challenges that inevitably arise from mining extractive operations. Almost all mining companies allocate resources to these initiatives. Thus, it is necessary for corporations in this industry to participate in corporate social responsibility initiatives in some capacity in order to remain current among industry competitors.

It has become standard practice in the mining industry to develop more environmentally and socially conscience operational strategies. "corporate social responsibility in the mining industry is viewed as a mechanism for maximization of positive and minimization of negative social and environmental impacts of mining, while maintaining profits" (Acutt et al, 2001). According to a poll of the ten largest mining companies in the world, the number one reason for participating in corporate social

responsibility activities is to contribute positively to brand reputation. Additional incentives are to increase value to shareholders, maintain relationships with the domestic government, and satisfy socially conscience consumers (Hamann 2003, 242). Not only is corporate social responsibility a useful tool to establish corporate goodwill, but also for providing an explanation of the company's positive additions to controversial issues. Often mining companies receive criticisms about their presence in a community. In response, mining companies tend to use corporate social responsibility publications as a method to highlight the beneficial contributions the company provides to the community as a method to promote the company's goodwill.

Challenges Faced by Mining Companies

Corporate social responsibility initiatives present many challenges to mining corporations. Scattered and piecemeal negotiations with multiple access points within the community can create significant confusion, disorganization, and lack of reliable information (Szablowski 2006, 53). If companies cannot create an efficient working relationship with community members, a lack of clear communication may arise. Thus, corporate social responsibility resources could be implemented less effectively because companies do not receive accurate information about community needs.

Mining companies find it challenging to fuse corporate social responsibility and sustainable development with enhancing shareholder value in the short term versus the long term. The short term is generally a period of no more than one year. In this time, companies often focus on sales, cost reduction, and revenue generation to attract and retain shareholders. Long-term strategies generally consist of activities that positively

alter the context in which the firm operates. Corporate social responsibility and sustainable development initiatives, in general, benefit a company in the long term, but usually require setbacks to short term goals. For instance, corporate social responsibility activities and sustainable business techniques most commonly require additional costs, thus reducing profits. A company's positive reputation and goodwill normally increase when it invests in these types of strategies though. Further, a company tends to avoid government retaliation and hostilities from local communities because it is acting generously towards these players. Accordingly, the short term losses could result in significant long term gains. The long term benefits discussed do not hold specific monetary values; unlike the costs of corporate social responsibility and sustainable initiatives. As a result, corporate executives frequently finds it difficult to justify to stakeholders short term costs for nonspecific long term gains. 80 percent of executives surveyed by McKinsey & Company expressed that "they would cut expenditure on research and development, marketing or corporate social responsibility to ensure that they hit quarterly earnings targets" (Davis 2005, 3). However, the same research article shows that up to "80 percent of a share's market value can be explained only by cash flow expectations beyond the next three years" (Davis 2005, 2). These findings illustrate that executives should consider committing to long term goals, including corporate social responsibility initiatives, because they could actually increase the company's market value.

Further, many community members face difficulties in organizing themselves to gain leverage in negotiations with large corporations. Power imbalances between corporations and local citizens often disadvantage the community. This is because the

mining companies typically have more financial, political, and technological resources than the community with which they are working. Thus, community members are at the corporations' largess to how the corporation invests its corporate social responsibility resources. In addition, if the corporation invests in corporate social responsibility initiatives that are not appropriate for the local community, the company could potentially do more harm than good in the long run. For example, when a corporation provides the local communities with a large sum of money, often the money is distributed unevenly. Certain families receive more money than others, therefore, disadvantaging the families who receive fewer funds.

The Mining Industry in Brazil

Considered as one of the largest and strongest emerging markets in the world, Brazil's economy surpasses all other Latin American countries combined (60 Minutes, 2010). In 2009, Brazil had an estimated \$2 trillion GDP (in purchasing power parity), 10th largest in the world. In the past ten years, Brazilian annual GDP growth averaged a rate of about 5 percent. Despite the country's perceived economic strength, 26 percent of the Brazilian population lives on less than US\$1 a day, which is equivalent to Laos and Uzbekistan (CIA World Factbook, 2010). Many of these citizens live in either the city slums known as, "favelas," or in the northern region of Brazil. The resource richness in the northern region attracts a variety of extractive corporations into the Brazilian Amazon. In the past 20 years, these companies have treated northern Brazil as one of the newest frontiers for mineral extraction. The world's increasing demand for mineral ore such as iron, aluminum, copper, and gold is spurring rapid mining expansion in the

Brazilian Amazon. Northern Brazil holds some of the most concentrated deposits of these minerals. With increasing knowledge of how to develop mining projects in the Amazon, multinational mining corporations are showing increased interest in this region.

The mining industry currently represents 14 percent of Brazil's overall GDP and establishes a trade surplus of US\$11.8 billion (ALCOA 2010). It is evident that the mining industry plays a large role in the Brazilian economy and possesses significant potential to support effective corporate social responsibility initiatives. The presence of large mining corporations in Brazil's poorest regions represents an opportunity for corporate social responsibility investment to improve social, economic, and environmental conditions in these locations. Corporate social responsibility implementation and effectiveness is extremely important to mining corporations in Brazil as a method to respond to public pressure and improve business goodwill. Therefore, the legitimate need for social services in northern Brazil and the declared commitment to corporate social responsibility initiatives by mining companies appears to be a mutually beneficial relationship.

III. ALCOA in Juruti, Pará: Bauxite Mine and Shipping Port

The Region

Corporate social responsibility has the potential for contributing greatly to a poor region, such as Juruti. This region holds a prospective 700 million metric tons of bauxite deposits used to produce aluminum, which spurred Alcoa, the multinational mining company, to create a mine in this location. The Juruti region consists of an estimated 40,000 people in over 150 rural communities. The average per capita income for this region is US\$23 per month, with about 60 percent of the population living below the poverty line (Bartolini, et al., 2010). Most of the population generates income fishing, cattle-raising, Brazil nut extraction, and subsistence agriculture. Within the Juruti region, only 21 percent of the population is literate (Abadala and Archell, 2011). In 2008, Alcoa only employed 15 local Juruti residents; the other 260 employees immigrate from other towns in Pará or other Brazilian states (Alcoa 2011). The challenges in Juruti combined with the region's mineral richness presents an opportunity for Alcoa's corporate social responsibility initiatives to make a positive difference for the regional population.

Alcoa's Perspective on Corporate Social Responsibility

Headquartered in Pittsburgh, Pennsylvania, the Aluminum Company of America (Alcoa 2011) is the world's third largest producer of aluminum (The Economist 2007). During the early 1990s, Alcoa made an organizational decision that the company must always implement "its state-of-the-art corporate environmental management systems to its aluminum extraction and manufacturing operations, business units, and subsidiaries

worldwide (Rondinelli, 2000). Influenced by investor demands to reduce potentially negative environmental impacts, Alcoa executives acted upon the opportunity to position Alcoa as a leader on environmental, health, and safety issues within the aluminum industry. In 2000, Alcoa launched its 2020 Strategic Framework for Sustainability. This is a short and long term metric system that targets six sustainability areas: economic benefit, respect and protection of employees, respect and protection of communities, safe and sustainable products and processes, efficient resource use, and accountability and governance” (Alcoa 2011). Alcoa’s executives support managers, domestic and international, by communicating and discussing how to set clear goals to meet the company’s environmental policies (Rondinelli 2000).

Controversy and negative public opinion due to other mining projects in the Amazon region encouraged Alcoa to evaluate its corporate social responsibilities initiatives for its new bauxite mine in Juruti. The company solicited the Juruti citizens using two opinion surveys, three public meetings attended by almost 8,000 people, and an additional 70 meetings with various community groups. Alcoa partnered with Getúlio Vargas Foundation (FGV) and the Brazilian Biodiversity Fund (FUNDBIO) to devise Alcoa’s corporate social responsibility approach. Three objectives were posited: 1) develop a multi-stakeholder council (Sustainable Juruti Council) to facilitate communication between civil society, Alcoa and the government; 2) utilize sustainability indicators and metrics to measure the progress of corporate social responsibility initiatives; and 3) create a development fund to provide resources to be invested in sustainable initiatives proposed by the Juruti community (Abadala and Archell 2011).

Alcoa has been careful to observe the formal regulatory requirements set up by the federal and state governments. For example, the company has invested US\$15 million in its *Environmental Control Plans (PCAs)*. These plans were established during the licensing process which include six physical environmental programs to monitor air, water, noise, and soil pollution; seven biotic environmental programs that are based upon preserving vegetation, flora and local animal species; 14 social and economic environmental programs to resettle people living in the Port area, education initiatives, health and medical initiatives, training laborers, supporting familial agriculture, wealth management education, and preserving cultural heritage; and eight management programs for environmental compensation, waste, emergencies, and rehabilitation (Alcoa 2011).

Corporate Social Responsibility Initiatives

Of Alcoa's US\$ 2.2 billion investment in the Juruti mine, the company has invested US\$26 million in corporate social responsibility projects or 1 percent of total the investment. Although, Alcoa will continue to contribute to corporate social responsibility initiatives for the Juruti region in the future, these investments will most likely remain a very small percentage of the company's total mining investments. In addition, it is important to note that these initiatives are voluntary on behalf of the company and are not required by the terms of the concession with the state.

Alcoa created the Council for a Sustainable Juruti (CONJUS) as a method to establish community involvement in a tri-sector partnership between government, company and community. Community meetings are implemented as a forum for

community members to communicate with Alcoa executives and managers. The first workshop was held in 2007 as a way for Alcoa to consult with the local municipality and community on its sustainability and corporate social responsibility initiatives. Now over 100 citizens are involved, including rural producers, fishers, town people, local government, and non-governmental organization representatives. Eight chambers were created to monitor the Environmental Control and Positive Agenda Programs in the areas of health, education, environment, security, infrastructure and sanitation, culture and tourism, rural development, and the economy and labor (Alcoa 2011).

The Positive Agenda represents another overarching strategy to effectively implement corporate social responsibility. Alcoa has invested US\$25 million in community improvement initiatives. The program includes 8 categories for improvement: health, education, security, culture, urban infrastructure, rural infrastructure, and environment. Alcoa's presence has placed significant pressure on government services. Health presents an important sector for corporate social responsibility contribution because it equates to about 15 percent of the municipal government's expenditure (Bartolini, et al 2010). Therefore, the company constructed a new hospital in Juruti which can serve medium and high risk patients and alleviates the prior 12 hour boat trip to the nearest hospital. Health clinics in six surrounding communities were refurbished and provided with new medical tools and equipment. The company also built a research laboratory in the Juruti Health Department for the Evandro Chagas Institute. Education represents the largest municipal government social investment at 25 percent of total expenditure (Bartolini, et al 2010). Thus, Alcoa invested in education through the development of the SENAI permanent school, construction of 16 classrooms in local

public schools, and a Technical Training Center. Alcoa's investment in security includes the construction of a municipal court, renovation of the Juruti Police Station, and created a traffic flow system for Alcoa vehicles. To provide improved urban and rural infrastructure Alcoa invested in creating a network of roads to connect the majority of communities in the Juruti region, constructed three deeps wells in the region, and constructed a municipal sanitary landfill site. Over 45 miles of road were built, as well as two bridges. Lastly, investments in environmental issues include partnering with Conservation International to support the conservation of the biodiversity in the Tapajós-Arapuins Region and acquiring land by Jará Lake for the Municipal Department of the Environment (Alcoa 2011).

Civil Society Organization Partners

Alcoa works with reforestation non-governmental organizations to re-vegetate the mine after operations end. The company pledges that “for every Brazil nut tree removed during the mining process, Alcoa will replant 10 trees” (Alcoa 2011). For every other species of tree impacted during the process, Alcoa will replant two trees. During the mining period, the company maintains a log that documents all the trees impacted and reports this log to the government with strategies on how to replace each tree (Alcoa 2011).

The Sustainable Juruti Fund (FUNJUS) represents another partnership with Alcoa and local civil society organizations to implement corporate social responsibility initiatives. The program was launched in May 2009 from the Brazilian Biodiversity Fund and is currently managed by local organizations and fund donors, including Alcoa. The

mining company earmarked US\$1 million to FUNBIO, of which US\$250,000 has been used during the experimental phase over the past two years. In January 2010, Alcoa selected 21 projects from civil society organizations to receive US\$5,000 up to US\$25,000 over an 18 month period. In order to qualify for funding, each civil society organization had to utilize Alcoa consultants in the development of their project. Of these projects selected 14 are focused on agricultural development, five are focused on social programs, and two are based upon political organization (Alcoa 2011).

Alcoa chose to partner with Peabiru Institute, an non-governmental organization with over 8 years of experience in educating people in the Amazon Region about biological conservation, to establish the Juruti Sustainability School (Peabiru 2011). This school was founded in March 2009 to provide the tools for professionals and leaders in the community to develop sustainable initiatives in the region. Alcoa provides the financial resource and non-governmental organization representatives teach a 10 month, 300 hour course.

In partnership with Alcoa, the Getulio Vargas Foundation classified 87 indicators for the quality of life in Juruti. GVF evaluates these indicators periodically to monitor the municipality's development: 27 environmental indicators, 38 social indicators, and 22 economic indicators (Getulio Vargas Foundation 2009). Environmental monitoring includes water, air, forest cover, greenhouse gas emissions, and animals. Social monitoring includes education, health, social risks, security, culture, labor, and conflicts. Economic monitoring includes local cost of living, public finances, energy, waste, transportation, private investments, and financial services. Alcoa executives envision that this data will positively contribute to influencing public policy, private social investment,

and financial resources for the Juruti region (Getulio Vargas Foundation 2009). The evaluations indicated rapid urbanization over the past four years, and increases in the quality of education, healthcare, and the economy.

The evaluations also documented conflicts between Alcoa and the local community. A settled compensation plan for Juruti Velho was pending, which created tensions between the community and Alcoa. Further, local streams were polluted with silt from the highway and railroad construction, aggravating many citizens. In response, Getulio Vargas Foundation recommends to engage in new negotiations for compensation plans and for Alcoa to invest in restoring the stream quality (Getulio Vargas Foundation 2009).

Conflicts with the Local Community

In January 2009, 150 local citizens protested the presence and negotiations of Alcoa by occupying the Juruti mine site and blocking the highway that Alcoa uses for operations. These people were from a highly organized community group, ACOJURVE, located in a Juruti Velho that is directly affected by the mine. These protesters halted Alcoa's operations for a few hours in order to demand compensation of 1.5 percent of the mine's profit and argue that Alcoa should negotiate with ACOJURVE separate from the CONJUS forums (Alcoa 2011).

In addition, the State Prosecutor's Office, as a representative of the local community of Juruti, cited Alcoa for inadequate and illegitimate adherence to the company's "social license to operate" because the company unlawfully entered Juruti

Velho and prohibited river access for the residents (Bartolini, et al., 2010). However, the state never acted upon these threats and Alcoa maintained normal operations.

Evaluation of Alcoa's Corporate Social Responsibility

Alcoa solicited Universidade de São Paulo's Instituto de Relações Internacionais and Centro de Estudos das Negociações Internacionais to conduct an independent assessment of the design, initial implementation, and future corporate social responsibility projects in Juruti. In November 2009, IRI and CAENI used a team of seven researchers from Columbia University's School of International and Public Affairs and two researchers from University of São Paulo to conduct this evaluation through semi-structured interviews in Juruti. The researchers interviewed members of CONJUS, Alcoa employees, community leaders, municipal government officials, and, state government officials in Belém, the state's capital. The results showed many weaknesses in Alcoa's corporate social responsibility initiatives.

The CONJUS and Sustainable Juruti Model were established by Alcoa with the mission to create community collaboration in a structured forum in order to implement effective social, economic, and environmental programs for the Juruti region. However, these councils were created in direct response to allegations from the State Prosecutor's Office. Alcoa responded to the public pressure by establishing the CONJUS and Sustainable Juruti Model. The company needed to act quickly and take responsibility for most of each organization's structural development. According to several interviews, Alcoa minimally communicated with the community and municipal government during the construction of CONJUS and Sustainable Juruti Model. Even though these councils

appeared to quell public descent because the state never took away Alcoa's operating license, these models and initiatives, especially CONJUS, may be considered less optimal solutions because Alcoa did not heavily consult the community during the structural development of the councils (Bartolini et al 2010). A member of CONJUS told researchers that "the council started from top to bottom, since Alcoa created it and invited members. It wasn't bottom to top, like a tree. So it started the wrong way" (Bartolini et al 2010, 32).

In addition, CONJUS avoids establishing itself as a formalized municipal group. Since Alcoa has significant influence within the Council, if it was a formal governmental Council, it would probably put Alcoa in a compromising role. Conversely, some community members characterized CONJUS as unaccountable because it does not have power to regulate the issues discussed (Bartolini et al 2010). An additional criticism includes some government representatives in CONJUS viewing that the projects developed in this group appear to be primarily implemented by Alcoa for corporate gains, rather than municipal development (Bartolini et al 2010). While the Council is a productive forum for Alcoa to discuss and negotiate issues with the community, it appears that Alcoa needs to clearly define the Council's role.

The independent research portrayed much inefficiency in Alcoa's relationship with civil society. The Juruti community members are extremely organized and unified, thus they often forced Alcoa to engage in bilateral negotiations to address civil demands and concerns. The community requests Alcoa to invest in regional development projects such as the construction of hospitals and schools, which normally is undertaken by the municipal government. The researchers claim that by Alcoa taking on the role of

delivering civil services a paternalistic and dependency relationship may become detrimental in the long run (Bartolini et al 2010). However, if Alcoa did not meet the requests of the community, Alcoa may also be viewed as detrimental to the short term development of the community. Since Alcoa deters CONJUS becoming a legalized state council, it appears that Alcoa is trying not to play the role of government, which the researchers do not take into account in their review.

Alcoa largely contributed to the development of CONJUS, however recently, the company has taken a strong position that the council should be independent from the company's oversight and control. This change creates ambiguity in the various roles within the Council. Interviews with CONJUS members illustrate that a lack of clarity and diverging perceptions exists about whether the council is a consultative or decision-making entity (Bartolini et al 2010, 36). In reality, Alcoa states that CONJUS exists as a "permanent public space for dialogue and collective action" (Alcoa 2011). This statement implies that it is a consultative body. Conversely, Council members interviewed were not able to clearly define the Council's mission or purpose.

Since Alcoa directly and substantially constructed CONJUS, some community members were not inclined to join the Council. ACORJUVE, the community organization of Juruti Velho, declined an invitation to join CONJUS because it saw Alcoa as the main representative and the community members believed that joining the Council would be a sign of its acceptance of Alcoa. ACORJUVE is also unwilling to participate because it saw CONJUS as a way for Alcoa to directly manipulate the community, not as a forum for discussion. Further, rural community members are not represented in CONJUS because of transportation challenges to the town center where meetings occur

(Bartolini et al 2010 39). The skewed representation of the community may affect the perceived legitimacy, accountability, and effectiveness of initiatives enacted by CONJUS.

Program and Impacts Analysis of Alcoa Corporate Social Responsibility

The table below illustrates the corporate social responsibility programs set up by Alcoa, the investment for each program, the duration of the program, and how the programs affect the community and company.

Table 1. Alcoa corporate social responsibility programs and impacts analysis.

Program	Investment	Time Period	Affects on Community	Affects on Alcoa
CONJUS	Alcoa management time	2007-undefined	Forum for structured negotiations	Reduce public conflicts
Positive Agenda	US\$25 million for entire program	2004-2009	Improved quality of life	Adequate infrastructure and content community
Sustainable Juruti Fund (FUNJUS) managed by Brazilian Biodiversity Fund (FUNBIO)	Initial US\$1 million	2009-undefined	Funding for community managed projects to improve environment and quality of life	Extend impact of corporate social responsibility through direct and indirect methods
FUNJUS-Pilot Program	US \$250,000	18 months	21 projects received funding of US\$5-25,000	Community members manage projects
Juruti Sustainability School Partnership with Peabiru Institute	Undisclosed amount from FUNJUS	2009-undefined	Community leaders gain skills to sustainably build initiatives	
Development Indicators and Monitoring (Partnership with Getulio Vargas Foundation)	Unknown	2007-undefined	Documented measurements of community development initiatives to keep Alcoa and government accountable	Provides quantitative data for analysis, decision-making, and benchmarking
Total	US \$26 million and Alcoa staff time			

Alcoa strategically invests in corporate social responsibility programs that diminish possible conflicts between the company and the community or the government. The community fora and government consultative group, in which Alcoa contributes to providing corporate social responsibility programs, directly meet the community's diverse needs. Through this process, effective negotiations between Alcoa and community or government leaders are established, which furthers the reduction of possible conflicts that may halt or limit Alcoa's operations. In addition, these corporate social responsibility programs are tactically designed to function without constant funding or employee time from Alcoa. The company provides each program with the required initial resources and organizational structure, and then focuses on developing community leaders and local sponsorship to ensure future operations and services. The company is able to claim that these programs are a part of its corporate social responsibility strategies, while reducing its investment. The scope of Alcoa's corporate social responsibility programs extend to indirect beneficiaries by supporting FUNJUS that manages and supports numerous other community improvement programs.

The benefits of Alcoa's corporate social responsibility investments appear to surpass the costs. Overall, Alcoa reported spending US\$26 million in the past 6 years. In the future, the company will contribute additional resources to its corporate social responsibility initiatives; however this figure quantifies costs incurred within roughly a 10 year period. The corporate social responsibility investments have proven to be a significant factor in the avoidance of potential conflicts that may halt mining operations.

To demonstrate potential savings, Alcoa's corporate social responsibility investments may be compared to the Overseas Private Investment Corporation issuance

plans. Overseas Private Investment Corporation issues insurance packages as a form of compensation to mining companies in the case of financial losses due to conflicts, as well. Alcoa does not purchase Overseas Private Investment Corporation insurance. However, if the company did choose to use this form of protection against loss, it would probably pay between US\$18.7 million and US\$57.2 million *annually*¹ (OPIC 2011). In this case, corporate social responsibility represents a far more cost-effective investment tool to reduce Alcoa's risk of financial losses due to conflicts between the company and community or government compared to Overseas Private Investment Corporation insurance.

¹ US\$2.2 billion/ \$100* 0.85= \$18.7 million
US\$2.2billion/\$100*(0.45+0.85+0.55+0.75)= \$57.2 million

IV. Votorantim in Niquelândia, Goiás: Nickel Mine and Processing Center

The Region

Corporate social responsibility initiatives have the potential to support and expand a developing economy, such as Niquelândia. Nickel was first discovered in the region during the 1930s, which signifies the city's name: Niquelândia. This is one of the largest nickel reserves in the world. Following the discovery of nickel, rapid development expanded across the region. Currently, it is the largest city in the state of Goiás and attracts many regional tourists who enjoy Lake Serra da Mesa, Carnival, and Ride into the Muquém. The robust regional economy consists of mining, cattle ranching, pig farming, fish farming, poultry farming, and beekeeping (Ministério das Cidades, 2011). In 2007 the city had a population of 38,517 and by 2010 the population rose to 42,380 people (IBGE, 2010) with a per capita income estimated at US\$ 6,415 (Sepin, 2011). This rapidly growing region creates opportunities for Votorantim corporate social responsibility initiatives to provide in depth and complex socioeconomic programs to assist in the process.

Votorantim's Perspective on Corporate Social Responsibility

Votorantim Group is a Brazilian family-controlled industrial conglomerate. The corporate operations include metals, steel, agribusiness, cement, energy, pulp and paper, and finance. In 2009, the company earned US\$14.3 billion in net income and invested US\$24.8 million in community related projects (Votorantim Group, 2009). Votorantim Metals controls the nickel mine in Niquelândia, Goiás. The nickel unit of Votorantim is

one of the largest producers of nickel in the world and the only producer of electrolytic nickel. In 2006, Votorantim Metals only documented that it directly invested about US\$3.4 million to the corporation's social responsibility organization: Votorantim Institute (Votorantim Metals, 2007).

The Votorantim Group founded Instituto Votorantim in 2002 with the goal to “create value for society and promote efforts focused on young people.” The institute is dedicated to stimulating and guiding corporate social responsibility and sustainability practices of all units of the Group. After extensive research and regional data collection Votorantim Institute ruled that people aged 15-29 represent the focused demographic for the Group's corporate social responsibility initiatives. This group represents 25 percent of the population, 50.5 million people. However, 4.5 million young people who express interest in working or studying, are not. In contrast, 90 percent of the six million newly created jobs between 2003 and 2007 are held by young people. Therefore, the company believes that positively contributing to preparing young people is the best method for its corporate social responsibility (Votorantim Group, 2009).

Over the past five years, the Votorantim Group via the Votorantim Institute has steadily increased its investments and scope of its corporate social responsibility programs in Brazil. In 2005, the company reported donating US\$18 million to the Votorantim Institute for social programs. In 2006, the corporation invested US\$18.8 million in 70 projects across 170 municipalities that reached about 156,000 people. In 2007, the Group invested US\$22 million in social projects. By 2008, US\$23 million was invested to 150 projects across 273 municipalities and directly benefiting about 405,000 people. In 2009, the Votorantim Group donated US\$24.3 million in 148 projects across

216 municipalities that directly benefited 522,000 people. Most currently, in 2010, the Group invested US\$ 22.5 million in 153 projects across 241 municipalities that directly benefit over 550,000 people (Votorantim, 2005-10 Annual Report).

Corporate Social Responsibility Initiatives

Votorantim Metals maintains “diverse social programs intended to increase the quality of life of collaborators and those with tie ties to” the company (Votorantim Metals, 2007). The metals business unit facilitates its corporate social responsibility programs through the Votorantim Institute. The institute independently focuses on investing in its six youth development categories: Education, Work, Culture, Sports, VIA, and Geração Atitude Program (Votorantim Institute, 2010). These programs are present in each of the communities that Votorantim operates.

The Education Program aims to increase the quality of schooling for young people for their continued development and combat the academic dropout rate. In Niquelândia, Votorantim Institute sponsors the “People of Tomorrow Project.” This project was founded in 2008 as a youth professionalization curriculum for students 15-29 years old through nutritional, psychological, educational, physical and social education. Two recent graduates attested that the program exceptionally prepared and motivated them to enter the professional field (“Votorantim Institute, 2010).

The Work Program aims to provide access, inclusion and empowerment of youth in the skilled labor market to help build individualized support for each participant’s desired professional career. Niquelândia has the “Art of the People Project” and an internship program. The “Art of the People Project” was created by Votorantim Metals

and Votorantim Institute to support 25 youth in generating income from selling fish and products made from wood or yarn. In addition, the Niquelândia mine provides 30 youth internships at the mining site. Responsibilities will include basic business management and maintaining supplier relationships (Votorantim Institute, 2010).

The Votorantim Institute developed the Culture Program to encourage youth development in all areas of the arts, performing arts, visual arts, film and video, literature, music, and heritage. In the Niquelândia region, the Votorantim Institute and Metals provide a culture program involving music. The “Social Action through Music” program provides scholarships to 320 students aged 8-24 years old for music classes and instruments rental. Students have the opportunity to perform in local and national music performances, as well as independently develop their musical skills (Votorantim Institute, 2010).

The Sports Program sponsored by the institute focuses on enhancing knowledge, self-esteem, and moral character through sports training and competition. The program also recovers public areas for sporting use. In Niquelândia, the “Friends of Volleyball” program hosts 300 youth participants that make up multiple teams and leagues in the area. This program provides health education, develops social relationships, and enhances cooperation and teamwork among the participating youth athletes (Votorantim Institute, 2010).

The VIA project exists to support the rights of children and adolescents. The program encourages taxpayers to direct a portion of their income tax to projects that protect children and adolescents in socially vulnerable situations. The Votorantim Institute supports and guides municipal educational, cultural and vocational development

of youth through sponsorship of existing adolescent service centers. The institute aids the “Development Center for Children and Adolescents- Ensuring Fundamental Rights” in partnership with the municipal government. The program is conducted at the Family Center for Children and Adolescents. The program provides education, culture, sport, leisure activities, professional training, and mentoring families in the Bolsa Familia (federal poverty assistance program) (Votorantim Institute, 2010).

The Geração Atitude Program was developed in 2009. The program supports young entrepreneurs for two to three years in order to expand their business operations. The institute’s goal is to promote young professional entrepreneurs that are socially and environmentally responsible and strengthen the entrepreneurial culture. The Institute focuses on proposals that explore untapped niches of local economies that fit the needs of the communities (Votorantim Institute, 2010).

Civil Society Organization Partners

In partnerships with local non-governmental organizations and local municipal governments the Votorantim Institute further supports professional networking and its six development programs. The “Youth Search Portal” was established in partnership with Grupo de Afinidade em Juventude do Gife. This is an online networking tool for companies interested in hiring to search for qualified young people. Votorantim Institute also independently invests in “Youth Wave”. This project includes a magazine and a portal for educators, researchers, young leaders, nonprofit professionals, and others interested in the topic of young professionals (Votorantim Institute, 2010).

Together with the partnering Fundação Consciencearte, the Votorantim Institute created the “Library for Life” program. This program aims to encourage literary excellence through providing books and community activities. The mobile library system, sponsored lectures, reading courses, and workshops on storytelling and theater performances are examples of “Library for Life” program initiatives. In addition, young people also conduct a radio program focusing on storytelling of local stories (Votorantim Institute, 2010).

The Votorantim Institute’s cultural program has partnering with Ivan Marcos de Souza to develop the “Caravan Brazilian Cinema” project. This corporate social responsibility initiative brings national cinema to villages in Brazil that do not have movie theaters. The movies show for free and afterwards the audience is encouraged to debate the public issues raised by the films. The program has been circulating since 2008 reaching over 70,000 spectators. In addition, the cultural program has partnering with Serviço Social da Indústria (SESI) to administer a public forum program that aims to promote community integration by holding 10 public forums in Niquelândia to encourage companies to develop community groups to encourage artistic and cultural expression and improve the quality of life (Votorantim Institute, 2010).

Conflicts and Community Challenges for Votorantim

Although the metals division of the Votorantim Group has never been involved in newsworthy conflicts with local communities, the Group has fallen under public scrutiny due to operations by its other divisions. For example, in 2005 a case against the Barra Grande hydroelectric plant in southern Brazil, operated by the Votorantim Energy

division and Alcoa, was brought forth against these companies for knowingly “utilizing a fraudulent environmental impact assessment.” Community members protested against the construction of the dam and inaccurate environmental impact assessment because it forced nearly 1,200 families to move out of the flooding zone. The Brazilian government’s Development Ministry, INCRA, accepted the case and ruled to hold further meetings to arrange environmental compliance of the hydroelectric dam. However, the ministry commented that the government’s drive for development may make it difficult to resolve the conflict. Currently, no progress has been made on this case (OECD Watch, 2011). In addition, in 2005 more than 500 people from the Landless Workers’ Movement (Landless Workers’ Movement) clashed with the Votorantim Agribusiness division about the ownership of 580 hectares of farm land. The Landless Workers’ Movement argued that the land owned by Votorantim had been idle for 17 years, which designated it as public land that the Landless Workers’ Movement had the rights to live on. However, the families living there face constant threat of violent eviction. The Votorantim Group negotiated with INCRA to allow the Landless Workers’ Movement to keep the land if the company was waved of all existing debts on the land in question (Landless Workers’ Movement, 2011). By 2009, INCRA concluded that the land should be controlled by the state and thus, gave the Landless Workers’ Movement the legal rights to the disputed area (FIAN, 2009). Both of these conflicts incurred by the Votorantim Group did not affect revenue generation or stock prices (Votorantim Group, 2009).

Program and Impacts Analysis of Votorantim Corporate Social Responsibility

The table below illustrates the corporate social responsibility donations given by Votorantim Group and the programs set up by Votorantim Institute in the Niquelandia region, the duration of the program, the investments, and how the programs affected the community and company.

Table 2. Votorantim corporate social responsibility programs and impacts analysis.

Program	Time Period	Investment (US\$)	Affects on Community	Affects on Votorantim
Votorantim Group donations to the Institute	2005	18 million		-Benefits from the goodwill generated by the national projects
Programs themes include: Education Vocation Culture Sports	2006	18.8 million	70 projects across 170 municipalities directly benefiting over 156,000 people	-Save management time and potential division restructuring by transferring CSR responsibilities from Metals to the Institute
	2007	22 million		
	2008	23 million	150 projects across 273 municipalities directly benefiting 405,000 people	
	2009	24.3 million	148 projects across 216 municipalities directly benefiting 522,000 people	
	2010	22.5 million	153 projects across 241 municipalities directly benefiting over 550,000 people	
Votorantim in Niquelandia				
“People of Tomorrow”	2008	Undisclosed	Professionalization curriculum for students 15-29 years old	Investment in human capital for the local region and potentially the company
“Art of the People Project”	Undisclosed	Undisclosed	Support 25 youth in generating income from selling fish and products made from wood or yarn	Goodwill
Internship Program	2010	Undisclosed	Provide internships for 30 youth at the mining cite	Professional training for potential future employees
“Social Action through Music”	Undisclosed	Undisclosed	320 students receive musical scholarships	Goodwill
“Friends of Volleyball”	Undisclosed	Undisclosed	300 youth participants in regional Volleyball league	Goodwill
Total		US\$ 128.6 million		

The Votorantim Group invests about US\$20 million to Votorantim Institute's social programs *annually*. The 153 programs are dispersed widely across Brazil in 241 municipalities that serve on average 2,300 people in each municipality. In 2010, the Group invested US\$22.5 million in programs that directly served 550,000 people, which averages to an investment of about US\$40 per person. The programs sponsored and developed by Votorantim Institute focus on the development of young adults and improving the quality of life for local communities. The company does not implement community negotiation counsels or collaborate with the government regarding municipal or national policy. On the contrary, the company focuses on socioeconomic initiatives on a micro-level. Even though the Group has encountered some challenges from local communities, this did not occur in Niquelândia.

The corporate strategy to cumulatively invest in the Votorantim Institute, rather than each individual business division independently implementing separate social responsibility initiatives, has proven beneficial. With more resources and personnel, the Institute focuses solely on corporate social responsibility, which frees each division of the extra management time and restructuring the organizational responsibilities for corporate social responsibility initiatives. The national scope of the Votorantim Institute creates an overarching presence of Votorantim's corporate social responsibility that benefits each division's operations because each can use the institute's work as evidence of its commitment to social responsibility without needing to specifically develop the variety of projects.

V. Vale in Carajás, Para: Iron Mine, Railroad, and Smelting Industry

The Region

Corporate social responsibility may positively contribute to the diverse and conflict-plagued Carajás region. Carajás is located in the southwestern region of the state of Para. Prior to the discovery of iron in the late 1960s, the Carajás region was inhabited by a native semi-nomadic tribe, the Guajajara. Only after the exploration of iron in this region was the Guajajara tribe discovered (Denslow, 1988). After exploration, it became evident that the Carajás region held one of the richest iron reserves in the world, close to 66 percent purity (Oren, 1987). Thus, by the 1970s, the rapid development confined the tribe to only a fraction of the region it formally inhabited. The speed of the development has largely been attributed to the military government's "Grande Carajás Program." This initiative has accounted for nearly 10 percent of the urbanization and "mechanization" (alteration of a land's natural growth, deforestation, farming, cattle-ranching, mineral extraction, etc) of Brazilian territory (345,560 square miles) (Denslow 1988). The mine, a hydroelectric dam, roads, railroads, and urban centers all attribute to the development. In addition, Vale constructed Parauapebas, an urban center, to directly serve its Carajás mine. First developed in 1981, this village has grown to 110,000 people (Prefeitura Municipal Parauapebas 2011). Along with growth in the city, in 1994, the Movimento dos Trabalhadores Rurais Sem Terra (Landless Workers' Movement- Landless Workers' Movement) created a settlement in the Carajás region. This group organizes landless and impoverished farmers in order to capture unused farmland from large scale farmers. The tactics used by this group have caused repeated conflict in the region.

Even though the city's economy was originally highly dependent on the mine, in the past two to three years the city has seen a growth in agriculture, cattle-ranching, grain farming, and commercial industries. In 2008, the per capita income in Parauapebas was US\$23,000. However, this estimation does not take into account the indigenous and landless workers movement in the region. These are the groups who would greatly benefit from corporate social responsibility (Prefeitura Municipal Parauapebas 2011).

Vale's Perspective on Corporate Social Responsibility

As the largest publicly traded company in Latin America and the second largest metals and mining company in the world, Vale has the potential to make a significant impact with its corporate social responsibility. Formally known as Companhia Vale do Rio Doce (CVRD), the company was first founded in 1942 as an entity of the Brazilian Federal Government. Even though in 1997 the company privatized, the government still plays a prominent role in the company's decision-making. Through the combination of shares owned by the state, BNDES (state developed national bank), and state pension funds, the Brazilian government possess enough shares to use veto power in order to control the company (Ascher 2011, 32). This relationship does not appear to inhibit Vale's financial success. As the world's largest iron ore producer, Vale produces nearly 230 million tons each year. This accounts for 65 percent of Vale's revenues (Economist 2010). Vale announced that in 2010 its annual revenue hit a record of US\$46.5 billion (CNBC 2011).

Vale invests a small portion of its financial resources to corporate social responsibility. The company states that it pursues "a balance between local

socioeconomic development and maintaining the quality of natural resources, biodiversity and life” (Vale 2011). In the first half of 2008, Vale invested globally US\$110 million in social projects and US\$272 million in environmental projects (Burnell 2011). Vale commits to using an internationally recognized environmental management model. To do this, the company uses the Environmental Quality Management System (SGQA) to construct its internal environmental management system. This model is based on ISO 14001, which serves as a framework to assist companies in developing an environmental management system (Vale 2011). However, this model does not require companies to meet environmental performance standards (ISO 2011).

By 1986 in the Carajás region, Vale had spent more than US\$66 million on conservation and Indian-protection plans for Carajás. Only a small portion of these investments were directly negotiated with indigenous people. The National Indian Foundation (FUNAI), which was disorganized and may have been uninformed of the majority opinions, negotiated with Vale for a compensation agreement. In 1984, an agreement was signed that required Vale to provide US\$13.6 million over the subsequent five year period to the indigenous communities in the areas influenced by the Vale Carajás railroad and mine (Fisher 1994). Even though some of these investments were required by state laws and regulations, the additional investments proved to be cost effective. Without environmental and social investments, Vale incurred US\$140 million worth of costs that were incurred in the south-central Brazilian mines for which the company had to retroactively solve the environmental and social issues that arose.

Corporate Social Responsibility Initiatives

The Vale Foundation manages and implements the majority of Vale's corporate social responsibility initiatives. The mission of the organization is to "contribute to the integrated development (economic, environmental, and social) of the territories Vale where is active. Strategies include organizing and funding social investments, empowering the communities' human capital and respecting local cultural identities" (Vale 2011). In 2008, the Vale Foundation invested US\$ 12.1 million in 72 projects. These investments initiated an additional federal investment of US\$437.5 million for these projects. Of the US\$449.6 million funds, two municipalities in the Carajás region have received US\$88.8 million. US\$22.2 million was invested in a Paragominas housing project and US\$66.6 million for a sewage project in Parauapebas (Somavilla et al, 2011). Nationally, the Vale Foundation focuses on two corporate social responsibility programs: so-called "Knowledge Stations" and Brasil Vale Ouro (Vale 2011).

The Vale Foundation develops Knowledge Stations to "help improve the quality of life and promote integrated, sustainable development in local communities" (Vale 2011). Currently, eight Knowledge Stations operate in Brazil. The company has set up two Knowledge Stations in the state of Para, Igarape Gelado and Tucuma. Igarape Gelado is located in Parauapebas municipality. This Knowledge Station focuses on supporting the local producers in the village of about 120 families, by providing technical agricultural education to share modern agricultural production information and techniques regarding dairy farming, poultry farming, beekeeping, and fruit and vegetable growing. Further, Vale sponsors the development of "Community Production Support Centers," where local families are organized into work groups, so that Vale may better

assist small producers. Additional carpentry and construction classes are also provided at this location to expand professional skills in the village.

The Vale Foundation sponsors Brasil Vale Ouro (Brazil Going for Gold) with the main goal “is to spot new talent...to help Brazil become an Olympic power.” The program welcomes all children six to eighteen years old to participate in its sports program. The company builds sports fields and provides training at the Knowledge Centers. Amenities include a track, swimming pool, and a large field for soccer and judo training (Vale 2011).

Vale continues to invest in corporate social responsibility in the Carajás region. In March 1985, Vale opened a zoo and botanical park spanning 30 hectares out of the 400,000 hectare Carajás National Park, in which the company’s mining operations are situated. Within the 30 hectares, 70 percent consists of primary forest (Vale 2011). In addition, the company has set up a group that helps capture wild animals that enter the urban center of Carajás and provides environmental education projects to schools around the country. Critics of the Carajás mine suggest that the US\$6 million investment in the zoo was “mis-spent and poorly designed” due to its location and lack of legitimate conservation effectiveness (Denslow 1988).

Most recently, Vale published plans to invest in three Vale Technology Institutes (ITV). The program goals include spreading innovative and scientific knowledge, and promoting research to positively contribute to socioeconomic and environment development, and sustainable mining production. Vale’s first investment took place in Para. It sponsored 80 master and doctorate scholarships worth over US\$2 million for research in computer science, biology, genetics, neuroscience, engineering, botany, and

physics. Vale is currently building the first Vale Technology Institute in Belém, Para (Vale 2011).

Civil Society Organization Partners

Vale partners with Instituto Alianca (IA) and Martins Pereira Consultoria Educacional (MPCE) to implement the Vale Youth corporate social responsibility program. Of the 16 Vale Youth programs in Brazil, two are located near the Carajás mine. The program encourages personal, social and professional development for people aged 10-20. It focuses in two main areas, emotional and sex education. From 2007 to 2009, almost 170,000 people participated in the program, including young people, parents, and health and welfare professionals (Vale 2011).

In 1999, in partnership with the Center for Education and Documentation for Community Action (CEDAC), municipalities' Department of Education, and Vale Foundation, the "Education Action" program was established in Brazil. The program aims to "strengthen the public municipal education management, in addition to training and providing continued education to teachers, with a view to improving the level of learning for students in public primary schools. It is a four year teaching program that trains future teachers in four disciplines: language (Portuguese), math, art, and management. From 2000 to 2009, Vale has invested US\$2.75 million to serve the 172,420 participants nationwide (Somavilla et al 2011). In the Carajás region, Vale has set up an "Escola que Vale" program in two communities. The first was founded in 1999, in Parauapebas, Para. The second was founded in 2003 in Paragominas, Para (Vale 2011).

Literacy in local communities represents another issue that the Vale Foundation supports. In partnership with Alfamol, a non-governmental organization that specializes in literacy, an eight-month literacy course was developed for people over the age of 15. 30 municipalities in Brazil are engaged with the Vale Literacy program. Between 2003 and 2009, the program served 120,000 participants and invested US\$1.2 million (Somavilla et al 2011). Of the nine municipalities in the state of Para, the Vale Literacy program exists in all three municipalities closest to the Carajás mine: Parauapebas, Paragominas, and Marabá (Vale 2011).

The Harpy Eagle Conservation Program was established through a partnership between Vale, Chico Mendes Institute for Biodiversity Conservation (ICMBio), and National Amazon Research Institute (INPA). This program operates in the Carajás National Forest. In 2010, after an eight month observation and monitoring period, researchers published a book highlighting their findings.

Conflicts and Challenges at the Carajás Mine

In October 2006, the Xikrin tribe protested for two days in portions of the Carajás mine to demand higher compensation paid by Vale to the indigenous community. Afterwards, Vale filed a lawsuit against the indigenous tribe for US \$10 million in damages (Mattera 2010). Again in February 2011, the Guajajara indigenous tribe blocked the Carajás railroad line for more than five hours and held six Vale employees hostage. This tribe demanded an improved healthcare center and a school (Pearson and Leahy 2010).

Between 2007 and 2008 the Landless Workers' Movement conducted 13 protests in Para that halted Vale operations. Protests included vandalizing a Vale pig iron plant, blockading the Vale railroad lines, and invading Vale offices in Carajás and Belém. The Landless Workers' Movement stated that it wanted Vale to close 70 charcoal furnaces in the Carajás region. The 500 Landless Workers' Movement protesters that blockaded the Vale railroad line were protesting Vale's involvement in the construction of a hydroelectric dam that has displaced over 1,000 people. Despite these protests, Vale traded shares were unaffected (Kinch 2008). In addition, the Landless Workers' Movement group does not receive corporate social responsibility resources from Vale. The national public opinion about the Landless Workers' Movement is extremely negative, so corporate social responsibility investments in this group would not be well accepted by the general Brazilian public.

Evaluation of Corporate Social Responsibility

A formal evaluation of corporate social responsibility initiatives conducted by Vale or a third party cannot be found. Vale states that company officials evaluate corporate social responsibility programs on a case by case basis. Officials refer to the initially-set project goals and examine whether or not those objectives are met (Vale 2011).

Program and Impact Analysis of Vale’s Corporate Social Responsibility

The table below illustrates the corporate social responsibility programs supported by Vale, the investment for each program, the duration of the program, and how the programs affect the community and company.

Table 3. Vale’s corporate social responsibility programs analysis

Program	Vale Direct Investment	Time Period	Affects on Community	Affects on Vale
National Indian Foundation (FUNAI)	US\$13.6 million	1984-1989	Indigenous community was compensated for potential loss in quality of life due to mine operations	Repeated indigenous protests regarding additional compensation and services that halted operations
Vale Foundation	US\$12.1 million	Undefined	72 community projects throughout Brazil including Paragominas housing project and Parauapebas sewage project	Urban centers near operation cites for labors and their families, which attract additional human capital and attribute to content employees
- Knowledge Stations	Undisclosed 18 built by 2012	1999-undefined	Community received economic development resources and social support	A more robust local economy, which may attribute to more stable communities.
- Brasil Vale Ouro	Undisclosed	1999-undefined	Athletic education and opportunities for the youth. Potentially more athletic success internationally	Improved goodwill Goodwill
Zoo and Botanical Park	US\$6 million	1985-undefined	Aesthetic benefits, potential future use, potential research findings	Goodwill

Table 3 Continued. Vale’s corporate social responsibility programs analysis

Program	Vale Direct Investment	Time Period	Affects on Community	Affects on Vale
Vale Technological Institute (ITV)	US\$2 million for Para scholarships Building investments-undisclosed	2010-undefined	Increased opportunities for technical research and education	Intellectual rights to research and possible discoveries. Benefits from new regional research
Vale Youth in partnership with IA and MPCE	Undisclosed	2007-undefined	~170,000 participants nationwide received emotional and sex education	Goodwill
Education Action in partnership with CEDAC, Department of Education	US\$2.75 million	2000-undefined	172,420 participants nationwide received teacher training. Improved municipal education	Goodwill
Vale Literacy in partnership with Alfisol	US\$ 1.2 million	2003-undefined	120,000 people nationwide participated in the eight month literacy course	Goodwill
Harpy Eagle Conservation Program	Undisclosed	2009-undefined	Aesthetic value	Goodwill
Total	US\$37.7 million and undisclosed investments			

The Vale Foundation, Knowledge Stations and the Vale Technological Institute represent the corporate social responsibility programs implemented by Vale that directly benefit the company’s operations. The benefits reduce the risk for conflicts and economic dysfunction, as well as promoting future technical benefits for the company. A significant contribution to the National Indian Foundation has proven to be inadequate to eliminate all conflict with indigenous groups. Avenues for clear communication and negotiation between the indigenous groups and Vale have not been established, as reflected by the repeated protests.

Six out of the ten corporate social responsibility programs that Vale invests mainly benefit the company through goodwill. However, the programs also contribute to the positive development of Brazil. Through this analysis, the presence and influence of the government over Vale operations illustrates that the company may need to only minimally contribute to its corporate social responsibility programs. The relatively low corporate social responsibility investments by Vale portray this concept. The goodwill generated from the six programs has not immunized Vale from public protest either. The company's affiliation with the government and the well-known government dependency on Vale for revenue makes the mining company a prime target for larger national protests. The Landless Workers' Movement repeatedly protested Belo Monte, a northern hydroelectric dam, and the iron smelting industry outside of Carajás. These issues are not a part of Vale's direct operations, however they are indirectly related, which may encourage the public to criticize Vale as a method to reach the government, as well.

VI. Analysis of Corporate Social Responsibility Strategies: Alcoa, Votorantim, and Vale

Corporate social responsibility implemented by mining companies operating in Brazil directly impact hundreds of thousands of Brazilian citizens each year. These acts of corporate social responsibility have the potential to positively contribute to the country's socio-economic development by providing additional resources to numerous local communities. The strategies to implement such programs appear to vary between multinational, state-influenced, and national mining companies. The analysis of Alcoa, a large multinational company; Vale, a government influenced company; and Votorantim, a private Brazilian-owned company, illustrate how differing organizational characteristics influence a company's behavior in investing in various corporate social responsibility programs.

Evaluation of the Data Collection

The data were collected for each company using the company's official website, scholarly articles, and news articles. The availability of quantitative information regarding specific corporate investments for all specific programs proved to be incomplete. This lack of thorough information limits this analysis and quantitative comparisons between the three corporate social responsibility strategies. A poll of the ten largest mining companies in the world stated that the number one reason mining companies engage in corporate social responsibility activities is to positively contribute to brand reputation. If this holds true, then it would be in Alcoa, Vale, and Votorantim's best interests to accurately report all of the investments they make in CSR in order to

widely publicize and quantify their positive contributions to communities. On the other hand, it is difficult to access all of this material, which may skew the evaluation.

In addition, each company lacked thorough appraisal methods for corporate social responsibility programs, such as measuring the effects of each program for the community served, gauging improvement of participants, and implementing strategies in response to the program appraisals. Of the three companies in this analysis, none appears to allocate funds to evaluate the programs in the corporate social responsibility budget. This may limit the companies' abilities to gain further information about the impacts of their corporate social responsibility investments. With the knowledge of how corporate social responsibility programs affect the participants, the companies may be able to improve the programs and invest in the programs that are making the most significant impacts. Alcoa, Votorantim, and Vale may be missing the opportunities to improve their corporate social responsibility initiatives due to a lack of program evaluation. Additional research conducted on corporate social responsibility programs implemented by oil companies in Indonesia found that program evaluations were not used in this case, as well (Stewart 2009). Future assessments may prove that the majority of the resource extraction industry does not implement results-based evaluations of corporate social responsibility programs.

Analysis of Alcoa, Votorantim, and Vale's Corporate Social Responsibility Initiatives

Annually, the Brazilian-owned company, Votorantim, donates US\$22.5 million to all of its Brazilian corporate social responsibility initiatives; the most of the three

companies evaluated (Votorantim Group, 2009). Alcoa, the multinational company, donates about US\$4.3 million a year to its corporate social responsibility programs in Juruti (Alcoa 2011). Lastly, the formerly government owned and current private, but heavily government influenced company, Vale, donates the least amount of funds to corporate social responsibility programs, about US\$1.9 million per year throughout the entire country (Vale 2011). It is important to note that these investments are allocated for multiple mines operated by Votorantim and Vale, but the amount invested by Alcoa is only representative for its mine in Juruti. Compared to each company's annual revenue generated in Brazil, Alcoa invests the most in corporate social responsibility, Votorantim thr second most, and Vale the least. Of the revenues generated from Alcoa's mine in Juruti, US\$975 million in 2009, the company's investment of US\$4.3 million represents 0.44 percent of the Juruti mine's total revenues.² Of Votorantim Group's total US\$14.25 billion revenue, the entire Group invested US\$22.5 million in its corporate social responsibility programs, which is equivalent to 0.16 percent of the company's total revenue.³ Vale's Carajás mine earned US\$38 billion in 2009 and invested about US\$1.9 million in corporate social responsibility programs, representing about 0.005 percent of total revenues.⁴ All the companies invest less than one percent of the company's total revenues, which may indicate that even though investment in corporate social responsibility is a norm in the mining industry, these investments are not necessarily a significant portion of corporate revenues. This also indicates that if a company increases its corporate social responsibility investments to one or two percent of total revenue, the

² Alcoa= (US\$4.3 million/ US\$975million) (100)= 0.44 %

³ Votorantim= (US\$22.5 million/ US\$ 14.25 billion) (100)= 0.16%

⁴ Vale= (US\$1.9 million/ US\$38 billion) (100)= 0.005%

company could significantly out-spend the other mining companies. This investment could contribute to additional positive community development and further promote corporate goodwill and branding with minimal costs relative to revenue. Further, Vale's close relations with the national government may indicate the company's relative minimal investments in corporate social responsibility initiatives. Alcoa and Votorantim must strategize, negotiate, and persuade local communities to accept their operations, which may represent an indicator for increased corporate social responsibility programs. In contrast, Vale does not necessarily need to engage and negotiate with the community to conduct operations because the company has the support of the national government.

Differing Target Populations

The corporate social responsibility programs supported by each company possess differing target populations. For instance, Alcoa invests in regional infrastructure near its mine in Juruti such as, hospitals, schools, the local economy, and a council for negotiating with the local community. These are all initiatives focused on regional stimulus. Since Alcoa is a multinational corporation that will primarily operate in Brazil at the Juruti mine site, the company's major dealings will be with the citizens and officials of the local municipality and state community. Therefore, only citizens of this region benefit from Alcoa's corporate social responsibility. The company states on its website that "Alcoa's biggest challenge in Juruti is to earn the right on a daily basis to operate," thus, it may target its corporate social responsibility programs to address this concern (Alcoa, 2011). In addition, Alcoa implements a unique forum for corporate and community negotiations. Alcoa has entered a community that its management may not be

familiar. Therefore, the company uses this forum as a method to better gauge how to invest its corporate social responsibility resources. The two other firms, Votorantim and Vale, have not held community forums.

In contrast, Votorantim's corporate social responsibility programs focus on young adults ages 15-29 across the entire nation of Brazil. The existing programs span a wide range of needs from sports, to cultural development, to education, and occupational success. Investment in well-rounded youth development across the country represents an opportunity to additionally increase public relations and media publications in Brazilian society. Similarly with Alcoa, it is in the best interest of Votorantim to gain the support to operate within the regions of its mines. Votorantim pursues corporate social responsibility programs that focus on providing curriculum and training for the youth to achieve this goal, rather than infrastructure investments of Alcoa. Votorantim will most likely continue to operate in Brazil for the rest of its corporate existence because it is a Brazilian-owned corporation. Therefore, this may influence the company to invest more widely across Brazil in order to establish corporate social responsibility in congruence with Michael Porter's argument that companies may aim to establish long-term competitive advantage through corporate social responsibility activities. In addition, maintaining and improving the company's goodwill and the Brazilian public view of the company will be beneficial in the future because the company will always operate in Brazil.

Comparably with Votorantim, Vale invests in corporate social responsibility programs that enrich the youth across the nation, such as Brasil Vale Ouro, the Vale Technological Institutes, the Vale Youth Program, and Education Action Program. These

programs focus on athletic, academic, and educational development. Vale further invests in its Knowledge Stations that are geared towards providing resources and support to the specific local economies and entrepreneurs in industries such as farming, fishing, crafting, and trading. The Knowledge Station resources are available for all citizens, not only the youth population such as Votorantim. In addition, Vale has also compensated indigenous groups that have been affected by the company's operations, but, unlike Alcoa, the company has not engaged in community negotiations or fora. Vale, similar to Votorantim, will continue to operate in Brazil for the rest of its corporate life and will most likely maintain relations with the Brazilian government. These characteristics may attribute to Vale's national corporate social responsibility initiatives.

Differing Strategies for Implementation

Alcoa partners with third party organizations to implement its corporate social responsibility initiatives, such as non-governmental organizations and the municipal government. The non-governmental organizations that Alcoa partners with are internationally well-known institutions such as, the Getulio Vargas Foundation. As a multinational corporation, Alcoa may prefer to partner with internationally respected non-governmental organizations because these organizations possess an internationally esteemed reputation, which makes it easier for management to justify the partnership to other Alcoa decision-makers and shareholders.

The Votorantim Group created the Votorantim Institute in 2002 in order to directly implement the majority of the corporation's corporate social responsibility programs throughout Brazil. Each division of the Group, including Metals, contributes to

the Institute that uses these funds to conduct corporate social responsibility on behalf of the entire Group. This strategy may save time and money for each individual division of Votorantim Group because each group does not need to dedicate additional management time or organizationally structure corporate social responsibility management into divisional operations. In addition, the Votorantim Institute operates with the investments from every division, thus the organization can implement corporate social responsibility programs with significantly more resources compared to if a single division had to separately develop its own programs. Therefore, each division benefits as well because they can take credit for all the Institute's programs in order to improve divisional goodwill. Further, when the Votorantim Institute partners with non-governmental organizations, they are typically small and local organizations such as, Grupo de Afinidade em Juventude do Gife and Fundação Conscieciarte. Many factors may potentially contribute to the Institute's decision to partner with primarily local non-governmental organizations such as availability of non-governmental organizations, the amount of influence over the organizations the Institute desires, the business or personal connections that exist between the members of the Institute and the non-government organizations, or the Institute's decision to support small and local organizations.

Vale directly designs and implements the majority of its corporate social responsibility initiatives such as the Knowledge Stations, Brasil Vale Ouro, and the technical institutes. Vale gains significant support from the municipal governments because of the close-knit relationship between Vale and the Brazilian government. Vale partners with a few small and local non-governmental organizations, similarly as Votorantim, for the Vale Literacy Program, Harpy Eagle Conservation Program, and the

Vale Youth Program. Potential factors for Vale's choice in partnering with small and local non-governmental organizations may be similar to those of Votorantim: desired influence and power in the partnership, supporting local organizations and local development, and business or personal affiliations. In addition, Vale appears to contribute to infrastructure development and invest in the development of human capital through programs that provide training and educational services to the participants.

Other Factors Contributing to the Variation in Corporate Social Responsibility

Initiatives

The development stage of a mine may influence the style of corporate social responsibility activities a company implements. For instance, ten years ago a mine in Juruti did not exist (Alcoa, 2011); only in 2000 did Alcoa begin its surveying (Alcoa 2011). This was the local community's first contact with international business. Therefore, perhaps Alcoa was motivated to implement its corporate social responsibility programs as a way to build relationships with the local communities, in order to gain access to the land and, in a sense, to gain "permission" from the local residents to operate. In addition, the local Juruti community has been developing rapidly, which lends itself to certain types of corporate social responsibility programs that support and enhance this development. Thus, Alcoa invested in the Sustainable Juruti Fund in order to support community projects that aim to improve the local environment and quality of life (Alcoa 2011).

In contrast, miners have flocked to Niquelandia since the late 1930s and at this point in the town developed rapidly at that time. By 1957, Companhia Niquel Tocantins

had already surveyed and began construction on the nickel mine currently operating in Niquelandia. At that time, Votorantim acquired Companhia Niquel Tocantins, finished constructing the nickel mine, and began operations. In contrast to Alcoa's situation, Votorantim did not have to obtain the permits or work with the local community to earn acceptance and permission to open the mine. Further, in the 1950s, corporate social responsibility was rare, so the social pressures that currently exist were not factors for Votorantim at the time. Over the past 50 years, the Niquelandia municipality has rapidly developed into a diverse and fully functioning city with a complex road system, an extensive school system, a healthcare system, an involved and relatively uncorrupt municipal government, and a police department. The region has nearly all of its basic needs met, so Votorantim has invested in secondary and tertiary community needs, such as the volleyball league, the media project in Niquelandia, and the internship program.

The Carajás iron mine was first discovered by US Steel in the 1960s. In 1970, the Brazilian government engaged in a joint venture with US Steel, in which the government owned 51 percent and US Steel owned 49 percent. Only indigenous groups existed in this region. Since the indigenous groups in this area were semi-nomadic and moved away from the mine location once pressured, the Brazilian government quickly allocated the appropriate licenses to the project and construction began with insignificant regional resistance (Martins 2010). By 1977, US Steel sold its ownership to the government, making Vale the sole operator of the mine. In the 1980s, the government-owned company constructed numerous municipalities neighboring the mine in order to attract and maintain a sufficient labor force. Presently, these neighboring municipalities have developed into complex socioeconomic systems that center around the mining industry.

Therefore, Vale does not need to focus its corporate social responsibility investments primarily on community acceptance, because of its in-depth presence; rather the company focuses on investing in human capital and diversifying the regional economies. This is evident in the company's investments in the Knowledge Stations, educational programs, and sports programs.

Differences in Community Conflicts

In 2009, the community group, ACORJUVE, conducted a protest that halted Alcoa's operations for a few hours (Alcoa 2011). The protesters claimed that Alcoa had not properly compensated the community for the production of negative externalities. This group consists of citizens from Juruti Velho, a neighboring community to the city where Alcoa operates. Therefore, the protesters were receiving indirect benefits from the company's corporate social responsibility initiatives such as, monitoring pollution, but did not directly gain from the construction and improvement of Juruti's schools, hospital, or local infrastructure. In response to the protest, Alcoa worked with the government to negotiate compensation. No further protests have been conducted by this group after Alcoa directly addressed the members' requests.

From 2006 to 2008, Vale experienced numerous protests in the Carajás region conducted by the Landless Workers' Movement and indigenous groups (Mattera 2010). Many of these protests stopped operations; however the amount of production lost was not determined by Vale. Vale negotiated with FUNAI, a non-governmental organization that represented indigenous groups, in the early 1980s in order to quell the aggravation of the indigenous people in the region. This organization may not have represented all of the

indigenous groups affected, not negotiated in accordance with what the indigenous groups desired, or Vale may not have agreed to meet all of the requests of FUNAI at that time. According to Vale's published documentation of its negotiations with indigenous groups, it appears that the company had not returned to negotiations with these people since the early 1980s. By 2006, indigenous groups still living in the area and affected by Vale's operations had additional requests of the company. However, Vale had not set up a method for indigenous groups to approach the company to engage in negotiations. Thus, the indigenous groups may have chosen to protest and threaten the company as a means to initiate negotiations. In addition, Vale never invested in corporate social responsibility programs for the Landless Workers' Movement due to political factors. Therefore, this group did not have a beneficial relationship with the company, which may have made it more attractive to protest Vale because this community had nothing to lose.

Votorantim Group experienced protests conducted by a local community and the Landless Workers' Movement, but neither halted operations (Votorantim Group 2009). Since Votorantim Institute's corporate social responsibility programs canvas Brazil, most of these protesters are directly or indirectly impacted by the Institute's investments. Even though the protests occurred, the groups did not pursue halting Votorantim's operations. The benefits of the company's presence in the region, including corporate social responsibility investments, may have deterred the local people from stopping operations. The total effectiveness of Votorantim's corporate social responsibility programs is unclear due to the lack of published information regarding program appraisals. However, it is clear that the company has avoided being forced to stop operations due to public protest, contrary to Alcoa and Vale.

The majority of people and organizations that protested against Alcoa and Vale in order to halt operations did not receive corporate social responsibility investments from these companies. These groups did not have an established relationship and avenues to peacefully negotiate with its corresponding company. The communities that are receiving corporate social responsibility programs from Alcoa or Vale have not protested. Therefore, corporate social responsibility investments may deter local populations from using protest strategies that impede mining operations. Factors that may contribute to this occurrence include corporate social responsibility reducing community angst, communities not willing to risk losing the corporate social responsibility resources, communities developing other avenues to negotiate with the companies, or other socio-economic dynamics.

Degree of Monitoring and Evaluation Implemented by Alcoa, Vale, and Votorantim

In 2006, Alcoa contracted a third-party non-governmental organization, the Getulio Vargas Foundation, to monitor a wide range of comprehensive environmental, social, and economic indicators. The organization compiled its information into a book that reports the non-governmental organization's findings. The factors are the following:

Environmental Factors

1. Land occupation
2. Mineral resources
3. Water
4. Air and climate
5. Fauna and flora
6. Fish and fishing
7. Agriculture
8. Livestock

Social Factors

1. Population
2. Education
3. Health
4. Security
5. Culture
6. Sports
7. Labor
8. Employment
9. Income
10. Social participation
11. Socio-environmental conflicts

Economic factors

1. Local economy
2. Public finances
3. Energy
4. Sewage
5. Garbage
6. Housing
7. Transportation
8. Communication
9. Private investment
10. Financial services

The Getulio Vargas Foundation found it difficult to access and monitor some community factors, such as school attendance, cost of living, mapping the traditional culture, and quantitative data regarding the river and stream water quality. Therefore, the organization devoted additional effort to gather these indicators. According to these indicators the Juruti region has benefited overall from Alcoa's investments and has seen numerous social and economic improvements. Although the environment has been disturbed, this monitoring system has found that the water pollution and air pollution has been kept to a minimum where it will not hurt the local population. In the published book, the Getulio Vargas Foundation highlights the importance of coordination of municipal public policies and large business projects in the Amazon to shape the location of populations and the provision of infrastructure. For example, in

Juruti, the municipal government was ill-equipped to respond to the rapid growth and influx in population due to the presence of Alcoa. This caused a temporary deficit in social services to the local region. Even with Getulio Vargas Foundation's monitoring information, it appears that evaluation, analysis, and responses by Alcoa corporate social responsibility management has not occurred. The complete value of this information will not be realized until the company implements strategic responses in order to best allocate corporate social responsibility resources.

Vale states that its corporate social responsibility officials evaluate corporate social responsibility programs on a case-by-case basis. The company asserts that managers refer to the initially-set project goals and examine whether or not those objectives are met. Vale does not use a standardized monitoring and evaluation model, which may cause a wide disparity between the quality and effectiveness of the information gathered. In addition, it does not appear that Vale consistently evaluates its corporate social responsibility programs. The irregularity of evaluations may make it difficult to estimate and pinpoint benefits and inefficiencies within the corporate social responsibility programs.

Votorantim Institute appears to implement an evaluation strategy on a case-by-case basis as well. Most frequently the Institute contracts the evaluation to a non-governmental organization. For example, in 2003 IDECA, an educational development non-governmental organization, conducted evaluations of six school districts that the Votorantim Institute supports with corporate social responsibility investments. The evaluations took into consideration the corporate social responsibility programs' respective abilities to meet the basic needs of preschool, primary, and secondary schools. In addition, the organization included recommendations for the Institute to optimize and better integrate its mission and objectives into

the educational programs (IDECA 2011). It is unclear if Votorantim Institute acted upon the gathered information and recommendations.

Can Companies Learn From the Corporate Social Responsibility Experiences?

In 2007, Vale acquired the world's second largest producer of nickel, Inco. After the acquisition, Vale began constructing a fully integrated mine, concentrator, and nickel processing system in the province of Newfoundland, Canada. During the development of this system, Vale held community open houses across the province to discuss social and environmental issues surrounding the nickel industry being developed. In addition, Vale facilitated numerous information sessions to companies in the province to ensure optimal procurement of opportunities with the construction and operations phases of the project. In regard to corporate social responsibility investment, Vale invested US\$100,000 in arts and culture, education, health, welfare, and athletics in the local province during 2007. Furthermore, the company awarded US\$15,000 worth of scholarships to the College of the North Atlantic in the same year (Vale Inco, 2007). It appears that Vale is pursuing a more comprehensive corporate social responsibility plan compared to its initial investments in Carajás, Brazil.

The last bauxite mine Alcoa opened was in Australia in 1963. The company did not include conservation clauses into its operations agreement with the government, which aggravated many conservation activists. Repeated protests by forest conservation advocates caused significant challenges during the construction of the Australian mine. These protests prolonged the construction of the mine and halted operations. By 1986, Alcoa amended its operation agreement to include a commitment not to mine in proposed conservation reserves. After the company implemented conservation and social investments in the region the protests

ceased (Gardner and Stoneman, 2002). From this experience, Alcoa's management may have chosen to partner with Getulio Vargas Foundation to design an innovative corporate social responsibility program based upon gauging community perspectives and priorities in order for the company to best integrate into the region. Alcoa aims to "make Juruti the best mining project in the world." Alcoa designed the corporate social responsibility program in Juruti with "the intention to draft a model that could be applied-and replicated" across the company's existing and future mines globally (Alcoa 2011). Therefore, it appears that Alcoa and Vale may be renovating corporate social responsibility strategies according to previous experiences.

VII. Assessment and Recommendations

The research on Alcoa, Votorantim, and Vale has illuminated trends in the mining industry's corporate social responsibility programs in Brazil. It appears that implementing corporate social responsibility initiatives is an industry wide norm. However, the extent to which each company invests in corporate social responsibility programs varies widely. The government-influenced company, Vale, invests the least amount of resources to its corporate social responsibility initiatives relative to its production. Votorantim, the Brazilian national conglomerate, invests the most in its nationwide corporate social responsibility programs, however does not surpass Alcoa, relative to corporate social responsibility investments according to location specific investments. Alcoa, the American multinational company, solely operates at its bauxite mine in northern Brazil and invests the most in corporate social responsibility initiatives in terms of the revenue earned from the specific mine site. Differing from Vale and Votorantim, Alcoa implements community fora. Differing from Vale, both Alcoa and Votorantim contract corporate social responsibility monitoring and evaluation to Brazilian national non-governmental organizations.

The corporate social responsibility strategies implemented by these three mining companies vary widely. Presently, it is unclear which corporate social responsibility programs provide the most benefit to the communities and corporations because of the lack of monitoring and assessment implemented by Votorantim and Vale, and the lack of thorough evaluations by Alcoa, Votorantim and Vale. Even though Alcoa contracted a non-governmental organization to monitor a variety of socio-economic and environmental indicators, the organization does not provide Alcoa with recommendations for improvement and it does not appear that Alcoa has revisited its corporate social responsibility strategies subject to the recent publication of the

monitored indicators. Despite limited monitoring and evaluation information, this research highlighted that Alcoa, Votorantim and Vale generally possess three main goals for their corporate social responsibility initiatives: developing positive relationships with the local community to reduce conflicts and ensure the continuation of mining operations, provide strategic community development, and establish goodwill.

Considerations for Corporate Social Responsibility Development and Implementation

Stages of Development in Specific Mine Locations

This research indicates that mining corporations operating in Brazil must take into account the mine, the local community, and the local economy's stages of development when creating and operating corporate social responsibility initiatives. The characteristics of specific mine locations hold valuable information for corporate social responsibility development. Since mining companies operate in a variety of locations and affect a variety of different populations, location-specific needs may require a variety of different corporate social responsibility programs. These indicators provide important information regarding the type, style, and focus of corporate social responsibility programs that will be most valuable and effective in specific communities. Therefore, the most effective corporate social responsibility programs will not be identical programs at different mine locations nationally or internationally due to the variability in community characteristics. For example, Votorantim operates numerous mines in Brazil. However, its regional corporate social responsibility programs vary tremendously. In Niquelandia, a relatively well-developed city, Votorantim sponsors a regional Volleyball league and an internship program for young adults. In contrast, Alcoa's Juruti mine is located in a relatively isolated and underdeveloped region. Therefore, Alcoa invests in corporate social

responsibility focused on improving regional infrastructure, such as a hospital, multiple schools, regional paved roads, as well as educational development for all ages. Further, Vale must take into account the company's effects on indigenous populations, so at the Carajás location the company focuses a significant amount of corporate social responsibility resources in maintaining a positive relationship with the various indigenous groups in the region. In contrast, Alcoa does not affect any indigenous populations, so the need for an indigenous program does not exist.

Strengths and Weaknesses of Corporate Social Responsibility Investments

Alcoa, Votorantim, and Vale use differing organizational structures to implement their corporate social responsibility initiatives. Each corporate social responsibility structure lends itself to the strengths of each company. For example, Votorantim Metals is a division a part of a national conglomerate. Since Votorantim has multiple divisions that are all advised to invest in corporate social responsibility initiatives, Votorantim saw it in its best interest to construct the Votorantim Institute. Without the Institute, each division would have had to individually implement corporate social responsibility programs. With the Institute, each division transfers their corporate social responsibility resources to the Institute where all the resources are aggregated for the conglomerate's corporate social responsibility programs. Further, the mission, strategies and monitoring of Votorantim's corporate social responsibility initiatives are far more likely to remain constant and consistent with the upper-management's corporate policies when implemented by a single institution compared to multiple divisions.

In addition, a company may consider reviewing its weaknesses in corporate social responsibility initiatives in order to improve these areas by potentially partnering with third-party organizations. For instance, Alcoa partners with the Getulio Vargas Foundation to monitor the

region's development indicators and the Peabiru Institute to design and implement sustainability education. Alcoa does not possess the resources or know-how to implement these programs, so the company partners with organizations that do have the resources and experience.

Focus on Accurate and Specific Corporate Social Responsibility Publications

Throughout this research, it became evident that Alcoa, Vale, and Votorantim do not comprehensively publish information regarding the investments of each corporate social responsibility program. These companies may be forgoing opportunities to promote goodwill by not publishing quantitative data concerning their corporate social responsibility investments. Publishing information regarding the success and positive effects of a company's corporate social responsibility programs may contribute to its goodwill, which is an important benefit for companies engaging in corporate social responsibility initiatives. On the other hand, if the programs are not succeeding, publishing all the corporate social responsibility program information still illustrates transparency to stakeholders and the company gains valuable information regarding its corporate social responsibility performance.

Negotiating with Organizations and Representative Groups

The Alcoa and Vale cases illustrate the importance of understanding the characteristics of citizens that are represented by organizations and community groups during negotiations. In response to negotiations with community groups, a company aims to provide the appropriate corporate social responsibility programs desired by the citizens and in congruence with company vision. However, misrepresentation of the community in negotiations often results in ineffective corporate social responsibility programs. For example, Vale negotiated with FUNAI, an

indigenous non-governmental organization, in order to provide the indigenous groups affected by the Carajás mine with fair compensation and corporate social responsibility resources as a method to compensate for the harmful effects incurred by the indigenous groups. However, FUNAI did not accurately represent all of the indigenous groups that were harmed and subsequent inaccurately negotiated indigenous expectations with Vale. Therefore, the indigenous have not been pleased with the results of the negotiations because Vale did not provide the appropriate corporate social responsibility investments. This led to those groups protesting and halting Vale's operations for two days. In addition, Alcoa facilitates community fora through its CONJUS program. However, community members of Juruti Velho were not represented in the initial community fora, which may have contributed to 150 people from this group to protest in 2009.

Regional Conflicts and Protest

This research highlighted the frequency and intensity of protests and conflicts between the local communities and mining corporations. It became evident that corporate social responsibility may be used to reduce the frequency and intensity of protests and conflicts by local communities. Corporate social responsibility programs may open venues for community groups to negotiate with the company. These instances may indicate the scope and success of corporate social responsibility programs; however this indicator is significantly incomplete in evaluating the full impacts of corporate social responsibility programs. Most of the groups involved in the documented protests did not receive corporate social responsibility investments. This information illustrates that those groups not included in corporate social responsibility investments may be more inclined to protests and engage in conflicts. A lack of corporate social

responsibility programs may influence groups to use protests as a means to open negotiations. However, the *causation* of whether corporations do not want to support groups that engage in protest and conflicts, or that groups create conflict due to a lack of corporate social responsibility investment is unclear. Therefore, conflicts may provide insight into each mining company's corporate social responsibility strategies and programs; however it is not an adequate evaluation tool.

Implementation of Evaluations

Value of Evaluations

The effectiveness, efficiency, and success of Alcoa, Votorantim, and Vale's corporate social responsibility initiatives remain unclear due to a lack of comprehensive monitoring and evaluations. Drawing from the research, it became clear that these mining corporations strategized their corporate social responsibility programs in order to develop positive relationships with the local community, reduce conflicts to ensure the continuation of mining operations, provide strategic community development, and establish corporate goodwill. Without proper monitoring and evaluation of these strategic corporate social responsibility goals, firms do not possess the metrics to gauge success. In addition, firms do not possess the information to reallocate or re-think their investments to improve corporate social responsibility initiatives. Without proper evaluations that critically analyze the impacts of current corporate social responsibility resources, the most effective and efficient programs may not receive appropriate funding. When a company invests and reinvests in programs that it has not monitored and evaluated, the company may be investing in programs that do not produce significant results for the positive development of a community, and may not enhance goodwill. By evaluating the

information gained from monitoring activities a corporation will most likely save resources and continue to improve goodwill and community development by investing in the most effective programs that benefit the most people and organizations. However, an all-encompassing method that accurately measures and evaluates corporate social responsibility programs has not been established.

Challenges of Monitoring and Evaluating Corporate Social Responsibility Programs

Monitoring and evaluating corporate social responsibility programs may present challenges that are detrimental to their implementation. From the Alcoa case, the Getulio Vargas Foundation stated that it was difficult for the organization to access various indicators. The unavailability of indicator metrics may require organizations to invest in conducting primary research or may influence the organization to overlook the inaccessible information. The Getulio Vargas Foundation chose to independently conduct primary research to quantify multiple indicators in its report. This collection required additional resources and manpower that other organizations or companies may not be able to access. The cost of administering the monitoring and evaluations internally or through contract with a third party organization may be too costly for some companies. However, if monitoring and evaluating corporate social responsibility programs becomes an industry-wide practice, just as investment in corporate social responsibility, then the costs become relatively equal across the industry, leveling the playing field. Currently, according to disclosed financial information, neither Alcoa, nor Votorantim, nor Vale allocates corporate social responsibility funds to evaluation. Since these companies allocate less than one percent of revenue to corporate social responsibility initiatives, each company

should consider allocating additional funds to monitor and evaluate its corporate social responsibility programs. This may represent a money-saving investment in the long-run.

Monitoring and Evaluation Models

Although, Alcoa, Votorantim, and Vale each monitor their corporate social responsibility programs to some extent, it is unclear if the companies strategically respond to information gained from monitoring their programs in order to improve their corporate social responsibility investments. With a complete and thorough monitoring and evaluation model, corporations are able to improve performance of corporate social responsibility investments, report findings to improve goodwill and illustrate transparency to stakeholders, and use the findings to assist and improve partner organizations. To some extent, Alcoa, Votorantim, and Vale monitor and evaluate their input investments; however, a standard method that best evaluates corporate social responsibility initiatives and investments does not currently exist.

In developing and implementing a policy, program or project, seven decision functions are considered. According to Harold Lasswell, these seven decision functions are: intelligence, promotion, prescription, invocation, application, termination, and appraisal (1971). The appraisal function represents an essential factor for policy, program and project success because this requires decision makers to assess the progress and promote necessary changes. The appraisal function criteria include dependability and rationality, comprehensiveness and selectivity, independence, continuity, total quality and cost-effectiveness (Lasswell 1971). Therefore, we know how to enhance the appraisal function.

In order to establish parameters for effective monitoring and evaluation, companies must set goals for their corporate social responsibility initiatives and corporate social responsibility

improvement. Peter Drucker created a framework that he termed “SMART” to guide decision makers in establishing objectives: specific, measurable, achievable, realistic, and time-related. Through setting these goals, managers create focused corporate social responsibility objectives that define metrics for evaluation.

Since corporations may be motivated to overstate corporate social responsibility investments and understate challenges or inefficiencies, third party monitoring and evaluating will most likely yield more accurate results. Currently and most often, non-governmental organizations fill the role of the third party evaluator. Further, this need presents an opportunity for the development of corporate social responsibility specialty firms that offer dependable, accurate, and effective monitoring and appraisals of corporate social responsibility programs.

After program goals and third party evaluators have been considered, corporate social responsibility appraisers must agree upon specific indicators to include in the evaluation. “Indicators are the quantitative or qualitative variables that provide a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of an organization against the stated outcome” (Kusek and Rist 2004, 65). Typically, companies will consider multiple social, economic, and environmental factors to evaluate. These indicators will also be influenced by a company’s responses to its “SMART” goals.

The next step in the monitoring and evaluation process will include collecting baseline data to determine the initial state of the local community, economy and environment. This information will be used as a benchmark for subsequent data collection and analysis. Successive evaluations will assist companies in the following areas:

1. Guide resource decisions
2. Evaluate problems
3. Identify potential challenges or issues
4. Support decision-making on competing or best alternatives
5. Support corporate social responsibility innovation
6. Discuss potential sources of issues and how to resolve

In addition, companies should publish the results from the monitoring and evaluations.

This is typically seen as annual corporate social responsibility reports. The purpose of publishing this information includes (Kusek and Rist 2004):

1. Illustrate accountability to stakeholders, communalities, and local governments
2. Aid corporations to gain positive public relations and reputational benefits
3. Communicate the importance of the corporate social responsibility programs
4. Encourage companies to investigate additional corporate social responsibility initiatives
5. Combat criticism of corporate social responsibility strategies

Publishing negative evaluations of corporate social responsibility programs may contribute to increased investor and stakeholder trust. Further, the potentially negative results signify useful information to aid in the improvement of future corporate social responsibility programs. Kusek and Rist (2004) justify that “performance reports should include explanations (if possible) about poor outcomes and identify steps taken or planned to correct the problems” (p. 136).

The data acquired from monitoring should be used for corporate social responsibility evaluation in order to improve and reassess investment decisions. Five factors may be considered during the evaluation process (Alperson 1996):

1. Make overall programs more strategic
2. Track a long-term program or project
3. Improve program quality and community awareness of the company
4. Maintain accountability from grantees by requiring evaluation within a grant
5. Reevaluate corporate vision according to changing community needs

Conclusion

In general, the corporate social responsibility programs implemented by Alcoa, Votorantim, and Vale illustrate positive trends of regional development. However, the extent of development varies among cases. Quantitative data that illustrate the outcomes of corporate social responsibility programs remain extremely rare. This makes it difficult to indicate whether corporations are significantly contributing to poverty elevation and development in Brazil. These cases demonstrate that if corporate social responsibility programs and strategies are developed in accordance with the factors discussed and combined with an appropriate monitoring and evaluation system, corporate social responsibility initiatives can enhance firms and local communities.

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